

Research Paper

From Framework to Practice: Evaluating a Preventive Civic Communication Model for Strengthening Community Resilience Against Misinformation

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Abstract

Theoretical frameworks for combating misinformation through civic communication have proliferated in recent years, yet empirical assessments of their translation into practice remain limited. This paper evaluates a pilot implementation of a Preventive Civic Communication Model (PCCM) derived from the Community-Based Integrative Model (CBIM) developed by Augustine (2025), which integrates civic literacy, ethical media communication, and leadership development into a structured, community-embedded intervention architecture. Pilot workshops were conducted across three urban and semi-urban community sites in the United States, engaging a total of 214 participants, including adolescents, young adults, and adult community stakeholders, over a twelve-week program cycle. Using pre/post assessment instruments measuring media literacy competencies, ethical decision-making in information sharing, and civic engagement intentions, the evaluation identifies statistically and practically significant gains across all three primary outcome domains. Specifically, the findings demonstrate that structured inoculation-based prebunking sessions, when embedded within a broader civic communication curriculum, produced durable improvements in source verification skills, manipulation-recognition ability, and responsible sharing behavior. The paper further examines program fidelity, scalability constraints, and the model's adaptive capacity across institutional and demographic contexts. Refinements to the original CBIM architecture are proposed based on these findings, and a scalability matrix for adoption by educational institutions and nonprofit organizations is presented. The study contributes to a growing empirical literature on evidence-based civic education interventions and demonstrates that preventive approaches to misinformation, grounded in civic principles rather than reactive correction, represent a practical and transferable public communication strategy.

Keywords: misinformation resilience, preventive civic communication, media literacy, inoculation theory, civic engagement, community-based intervention, pilot evaluation, civic education

Introduction

The proliferation of misinformation across digital communication platforms constitutes one of the most consequential structural challenges facing democratic institutions. False and misleading information erodes the shared epistemic commons on which informed civic participation depends, undermines institutional trust, and compounds existing inequalities in access to reliable public knowledge (Dan et al., 2021; Van Bavel et al., 2020). For communities already navigating conditions of civic disengagement or political marginalization, misinformation susceptibility is especially acute: when residents cannot reliably evaluate the credibility of public health information, electoral guidance, or policy claims, their capacity for meaningful civic participation is systemically compromised (Kasham & Iriaome, 2022). The scholarly response to this challenge has produced substantial theoretical and experimental work. Inoculation theory posits that exposure to weakened forms of persuasive misinformation, accompanied by refutational framing, can generate resistance to subsequent false information encounters (vander Linden, Roozenbeek, & Compton, 2020; Roozenbeek, van der Linden, & Nygren, 2020). Media literacy education advances the competencies necessary to evaluate sources, contextualize claims, and recognize rhetorical manipulation (Levitt & Grubaugh, 2024; Xushnud, 2024). Civic education frameworks position these competencies within democratic citizenship, one in which the ability to engage critically with public information is inseparable from responsible civic leadership (Kennedy, 2012; Owen & Irion-Groth, 2024).

What has been comparatively absent is a systematically evaluated community-based model integrating these distinct traditions into a unified, implementable intervention, tested not in laboratory conditions but within the complex settings in which community misinformation exposure actually occurs. Augustine (2025) addressed this gap by proposing the Community-Based Integrative Model (CBIM), which synthesizes civic literacy, youth leadership development, and ethical media communication into four interlocking implementation mechanisms: leadership training programs, educational curricula, nonprofit partnerships, and community media initiatives. The CBIM is theoretically rigorous; however, its practical operationalization, including participant outcomes, implementation fidelity, and scalability, requires empirical assessment. This paper addresses that gap directly, presenting findings from a structured pilot evaluation of a Preventive Civic Communication Model (PCCM) derived from and extending the CBIM, implemented across three community sites over a twelve-week program cycle. Three evaluative questions guide the study: (1) Does structured participation in the PCCM produce measurable improvements in media literacy, ethical information-sharing behavior, and civic engagement intentions? (2) To what extent can the model be implemented with fidelity across diverse organizational and demographic contexts? (3) What programmatic refinements does the evidence warrant?

2. Theoretical and Empirical Foundations

Preventive Communication and Inoculation Theory

Preventive communication, as distinct from corrective or reactive communication, proceeds from the premise that resilience to misinformation is most durably built before misinformation encounters occur, rather than through post-hoc debunking (Harich, 2024). This distinction carries practical importance: debunking efforts face the well-documented "continued influence effect," in which corrections fail to fully displace false beliefs even after their falsity has been demonstrated (Amazeen, Krishna, & Eschmann, 2022). Prebunking approaches, by contrast, preemptively arm individuals with the cognitive tools to recognize and resist manipulative persuasion techniques before those techniques are deployed. The theoretical architecture underlying prebunking is inoculation theory, originally formulated in social psychology and extensively developed in the context of health communication and, more recently, political and civic misinformation (van der Linden, 2023). Inoculation operates through two mechanisms: threat, alerting individuals that an attempt to mislead them may occur, and refutational preemption, providing an attenuated encounter with the misleading argument alongside counter-reasoning (Roozenbeek, van der Linden, & Nygren, 2020). Experimental evidence from diverse cultural and national contexts demonstrates that inoculation interventions reliably reduce susceptibility to misinformation and increase critical engagement with information sources (van der Linden, Roozenbeek, & Compton, 2020). These effects have been demonstrated in digital environments, including social media platforms, where misinformation spreads is most consequential (Godfrey, 2023). Critically, the effectiveness of inoculation-based approaches is not uniform across populations. Lee, Moore, and Hancock (2024) found that tailored digital media literacy interventions that account for community-specific information contexts and trust networks produced significantly stronger resilience-building outcomes among communities of color than generic, decontextualized media literacy curricula. This finding underscores the importance of contextualizing preventive communication within the social and civic structures that shape how communities receive and evaluate information.

Media Literacy as Civic Competency

The relationship between media literacy and civic competency is more than definitional overlap; it is a functional relationship in which each domain reinforces the other. Civic participation depends on the ability to access, evaluate, and act on reliable public information, while media literacy, when grounded in civic values, produces not merely skeptical consumers of information but active, responsible participants in the informational commons (Frau-Meigs, 2022; Dewi & Elfiandri, 2024). Pipchenko and Yurii (2025) analyze

the Swedish national approach to disinformation resilience as a model case, demonstrating that institutionally embedded media literacy education, when it includes psychological resilience components alongside technical source-evaluation skills, generates significantly stronger population-level resistance to coordinated disinformation campaigns than technical literacy training alone. This literature suggests that media literacy interventions designed with an explicit civic purpose, emphasizing ethical communication, democratic participation, and community responsibility alongside verification skills, are more likely to produce the behavioral and attitudinal changes associated with durable resilience. Dobrescu, Durach, and Vladu (2022) further argue that media and information literacy frameworks oriented toward community disinformation resilience must be embedded in existing social and institutional trust networks rather than delivered as standalone educational modules. These considerations are foundational to the design of the PCCM and distinguish it from narrower technical media literacy programs.

Community Resilience, Civic Engagement, and Ethical Communication

Community resilience, in the context of misinformation, refers not only to individual-level resistance to false information but to the collective capacity of a community to maintain shared epistemic standards, support accurate information circulation, and hold information actors, including community members themselves, to ethical communication norms (Kapantaia et al., 2020). This collective dimension is frequently absent from individually focused media literacy programs. When communities develop shared norms around information verification, responsible sharing, and constructive correction of misinformation, the social infrastructure of resilience is strengthened in ways that individual-level interventions cannot replicate. Civic engagement is both an outcome of effective civic communication and a mechanism of resilience. Communities with higher levels of civic engagement are better equipped to identify and contest misinformation, because they maintain strong ties to civic institutions, authoritative information sources, and peer networks that collectively produce and validate credible information (Owen & Irion-Groth, 2024; Monkman & Proweller, 2016). Ethical communication, as analyzed by Frau-Meigs (2022), provides the normative architecture that links media literacy competencies to civic practice: individuals who internalize ethical communication standards are not merely better information consumers but more responsible information producers and sharers, a distinction that bears on the viral spread of misinformation through community networks (Elgammal et al., 2026).

3. The Preventive Civic Communication Model: Architecture and Design

The Preventive Civic Communication Model (PCCM) evaluated in this study is derived from and extends the CBIM proposed by Augustine (2025). The CBIM's four implementation mechanisms, leadership

training programs, educational curricula, nonprofit partnerships, and community media initiatives, provide the structural scaffold, while the PCCM introduces a specifically preventive orientation by foregrounding inoculation-based prebunking sessions, ethical communication norm-setting activities, and community-level civic engagement exercises as core programmatic elements within each mechanism. The PCCM is organized around three analytically distinct but functionally integrated competency domains:

Media Literacy and Information Evaluation. Participants develop skills in source verification, credibility assessment, and recognition of common manipulation techniques including emotional framing, false urgency, and misrepresentation of consensus. Drawing on Cernicova-Buca and Ciurel (2022), the model incorporates inoculation knowledge assessment as both a pedagogical instrument and an evaluative tool, allowing facilitators to track the development of manipulation-recognition capacity across the program cycle.

Ethical Decision-Making in Information Sharing. Participants engage with structured vignette-based scenarios designed to build deliberate, values-grounded judgment about what information to share, how to contextualize it, and when to pause and verify. This component draws on Frau-Meigs' (2022) ethical communication pedagogy and Bennett and Hays' (2022) leadership self-efficacy framework to cultivate not only behavioral caution but also a positive civic identity as responsible information actors.

Civic Engagement and Community Action. Participants translate media literacy and ethical communication competencies into community-relevant civic actions, including participation in facilitated community dialogues, contribution to community media products, and engagement in local civic processes. The civic engagement component draws on Shera and Murray (2016) and Atkin et al. (2020) to integrate community leadership development with communication competency training. The program was delivered across twelve weekly sessions, each lasting approximately two hours, facilitated by trained community practitioners with backgrounds in civic education, journalism, or community organizing. Sites included one urban nonprofit organization, one suburban high school, and one semi-urban community college, providing the variation in institutional context necessary for a meaningful assessment of scalability.

4. Methodology

Pilot Sample and Site Selection

Three community sites were selected to represent the range of institutional environments in which the PCCM is intended to be deployable. Site A was an urban youth-serving nonprofit in a major northeastern U.S. city; Site B was a suburban public high school in the mid-Atlantic region; and Site C was a community

college in a semi-urban setting in the mid-south. A total of 214 participants completed both pre-and post-assessments, distributed across the three sites (Site A: n = 71; Site B: n = 84; Site C: n = 59). Participants ranged in age from 14 to 47, with the majority (67.3%) between the ages of 16 and 24. The sample included 54.2% female, 39.7% male, and 6.1% nonbinary or gender-nonconforming participants. Ethnic and racial composition reflected the community demographics at each site.

Assessment Instruments

Pre-and post-assessment data were collected using a battery of instruments validated against existing scales in civic education and media literacy research. Media literacy competencies were measured using a source verification simulation task and an inoculation knowledge assessment adapted from Cernicova-Buca and Ciurel (2022), which measures participants' ability to identify emotional framing and deceptive amplification techniques. Ethical decision-making was assessed via a vignette-based behavioral intention scale in which participants rated their likelihood of sharing, pausing to verify, or seeking additional context before sharing five ambiguous information scenarios. Civic engagement intentions were measured using a self-report scale adapted from Kahne et al. (2012), capturing intentions across electoral participation, community advocacy, and civic dialogue engagement. Leadership self-efficacy was measured using the adapted scale from Bennett and Hays (2022). Pre-assessments were administered in the first program session, and post-assessments were administered in the final session. Facilitators recorded session fidelity data using a structured implementation log. Descriptive and inferential statistics were used to analyze pre/post differences across the three competency domains. Cohen's d effect sizes were calculated to assess practical significance.

Analytical Approach

The analysis proceeded in two stages. The first stage examined within-group pre/post outcome changes across the full sample and by site, using paired t-tests with Bonferroni correction for multiple comparisons. The second stage analyzed implementation fidelity data to assess the degree to which variation in outcomes across sites could be attributed to variation in delivery quality, session completion rates, or participant engagement levels. Qualitative thematic analysis of facilitator logs supplemented the quantitative findings by identifying recurring implementation challenges and adaptive practices.

5. Findings and Analysis

Media Literacy Outcomes

Participants demonstrated statistically significant improvements in media literacy competencies from pre- to post-assessment across all three sites. On the source verification simulation task, mean accuracy increased from 52.4% to 74.1% ($t(213) = 18.32$, $p < .001$; $d = 0.89$), indicating a large effect size and a practically meaningful improvement in the ability to distinguish credible from misleading sources. Scores on the inoculation knowledge assessment, measuring recognition of emotional framing and manipulation techniques, increased from a mean of 41.7% to 68.9% correct ($t(213) = 21.05$, $p < .001$; $d = 1.02$), also reflecting a large effect. These findings align with the experimental literature on inoculation-based prebunking interventions. Roozenbeek, van der Linden, and Nygren (2020) demonstrated that prebunking exercises built around recognizing manipulation techniques, rather than specific false claims, generalize across new misinformation content. The current findings replicate this generalization effect in a structured community program context, suggesting that community-based delivery of inoculation-derived curricula can achieve effect sizes comparable to those produced in more controlled experimental settings. Moore and Hancock (2022) similarly found large effect sizes for digital media literacy interventions when delivered to populations with limited prior media literacy training, consistent with the present sample profile. Sub-group analysis indicated that participants at Site A (the urban nonprofit) demonstrated the strongest media literacy gains, which facilitator logs suggest was associated with the explicit attention paid at that site to community-specific misinformation contexts, consistent with Lee, Moore, and Hancock's (2024) finding that tailored, community-contextualized interventions outperform generic media literacy curricula.

Ethical Decision-Making Outcomes

On the vignette-based ethical decision-making scale, participants showed significant improvement in their tendency to pause and verify information before sharing, and in their articulated reasoning about the civic responsibility implications of information sharing. The mean probability of "would verify before sharing" across the five vignettes increased from 38.6% at pre-assessment to 61.4% at post-assessment ($t(213) = 16.74$, $p < .001$; $d = 0.77$). The mean probability of "would share immediately without verification" decreased from 44.2% to 21.8%, representing a shift in baseline behavioral disposition toward more deliberate information stewardship. These shifts are analytically significant for two reasons. First, they suggest that the ethical communication pedagogy embedded in the PCCM successfully cultivated normative shifts in participants' self-perceived role as information actors, not merely cognitive awareness of misinformation as an abstract problem. Frau-Meigs (2022) argues that the most durable outcome of ethical media communication education is precisely this identity-level shift: from passive consumer to responsible civic communicators. The behavioral intention data are consistent with this argument. Second, the magnitude of the ethical decision-making gains was more variable across sites than the media literacy gains, suggesting that this competency domain is more sensitive to facilitator quality and program context. Sites

where facilitators had backgrounds in community organizing or civic education showed stronger ethical decision-making gains than sites where facilitators came primarily from journalism or technical communication backgrounds.

Civic Engagement Outcomes

Civic engagement intention scores, measured by the adapted Kahne et al. (2012) scale, increased significantly from pre- to post-assessment across the full sample (pre-mean: 3.41/7; post-mean: 4.89/7; $t(213)=14.09, p<.001; d=0.68$). This represents a moderate-to-large effect, consistent with the program's design emphasis on civic engagement as the integrative outcome of media literacy and ethical communication competency development. Among the specific civic engagement subscales, the largest gains were observed in community dialogue engagement (pre: 3.19; post: 4.96; $d=0.81$) and civic advocacy intentions (pre: 3.37; post: 4.73; $d=0.64$). Voting-related intentions, notably, showed the smallest gains ($d = 0.42$), which may reflect the relatively short program duration relative to the long-term socialization processes driving voting behavior. Owen and Irion-Groth (2024) caution that civic education programs should not be evaluated primarily on electoral participation outcomes without accounting for program duration and participant age. The stronger gains in community dialogue and advocacy intentions are consistent with what Monkman and Proweller (2016) characterize as the proximal civic engagement behaviors most accessible to short-term programmatic influence. Leadership self-efficacy, while not a primary outcome domain, increased from a mean of 4.12 to 5.21 on a seven-point scale ($d=0.55$), consistent with Atkins et al. (2020) and Shera and Murray (2016) on the capacity of short-duration community leadership programming to produce meaningful self-efficacy gains even without extended mentorship.

Table 1. Pilot Program Participant Outcome Summary: Pre/Post Workshop Comparisons (N=214)

Outcome Domain	Assessment Instrument	Pre-Score (Mean)	Post-Score (Mean)	Change	Effect Size (d)	Significance
Source Verification Accuracy	Simulation task (% correct)	52.4%	74.1%	+21.7 pts	0.89 (Large)	$p < .001$
Manipulation Recognition	Inoculation knowledge assessment (% correct)	41.7%	68.9%	+27.2 pts	1.02 (Large)	$p < .001$

Ethical Decision-Making	Vignette-based behavioral intent scale (verify before sharing %)	38.6%	61.4%	+22.8 pts	0.77 (Large)	$p < .001$
Civic Engagement Intention	Adapted Kahne et al. (2012) scale (1–7)	3.41	4.89	+1.48	0.68 (Moderate-Large)	$p < .001$
Leadership Self-Efficacy	Adapted Bennett & Hays (2022) scale (1–7)	4.12	5.21	+1.09	0.55 (Moderate)	$p < .001$

Note. All paired comparisons used Bonferroni correction. Effect sizes interpreted per Cohen (1988): small = 0.20, medium = 0.50, large = 0.80.

Implementation Fidelity Analysis

Facilitator implementation logs indicated that session completion rates averaged 91.3% across all three sites, with Site B (suburban school) showing the highest completion rate (96.4%) and Site C (community college) the lowest (84.7%), attributable primarily to student scheduling conflicts during the mid-term examination period. Core program components were delivered with high fidelity at all three sites; the prebunking sessions, ethical vignette discussions, and community media activities were completed as designed at all sites. The civic dialogue sessions showed the most variability in depth and duration, reflecting differences in facilitator skill and participant group composition. A critical finding from the fidelity analysis is the relationship between contextual tailoring and outcome quality. At Site A, facilitators incorporated local misinformation examples from community social media networks, including specific rumors that had circulated about neighborhood redevelopment projects and vaccine access. This contextual specificity, absent from the standardized PCCM curriculum design, was consistently associated with higher participant engagement and stronger media literacy gains, consistent with what Dobrescu, Durach, and Vladu (2022) identify as the decisive role of locally anchored trust structures in building durable disinformation resilience. This finding represents a significant evidence-based refinement to the PCCM architecture: the model must build in formal mechanisms for community-specific contextualization rather than treating local adaptation as a discretionary facilitator practice.

6. Discussion

Evidence for Preventive Approaches Over Reactive Correction

The pilot findings contribute to a growing body of evidence supporting preventive, competency-building approaches to misinformation over reactive, claim-specific correction strategies. As Amazeen, Krishna, and Eschmann (2022) demonstrate in their comparative analysis, debunking interventions are limited in their durability precisely because they address specific false claims rather than the cognitive and dispositional mechanisms that produce susceptibility. The present study's large effect sizes on manipulation recognition, a generalizable cognitive skill, compared to smaller effects on specific fact-checking behaviors, reinforce this conclusion. A population that can recognize how manipulation works is more robustly protected than one that has been corrected on a specific false claim. This finding has direct implications for program design. Preventive civic communication curricula should prioritize transferable competencies, source evaluation heuristics, rhetorical pattern recognition, and civic responsibility norms, over claim-specific fact-checking training. The PCCM's structural emphasis on inoculation-based prebunking, consistent with the recommendations of van der Linden (2023) and Roozenbeek, van der Linden, and Nygren (2020), appears justified by the pilot outcomes.

The Civic Framing Effect

A key analytical finding concerns the value of the civic framing that distinguishes the PCCM from standard media literacy curricula. Participants across all sites, in facilitator-recorded qualitative comments, consistently described the program's impact in civic, not merely informational, terms: they spoke of feeling more capable of contributing to their communities, more responsible as information sharers, and more confident in engaging with civic dialogue. This language cluster suggests that the model's integration of media literacy into an explicit civic competency framework produced attitudinal changes that extend beyond technical information skills. This civic framing effect is analytically consequential. Xushnud (2024) argues that media education that foregrounds citizenship and community purpose, rather than individual critical consumption, generates stronger behavioral intentions and longer-lasting attitudinal change. Levitt and Grubaugh (2024) similarly find that the gap between adolescents' information evaluation abilities and their actual information-sharing behavior is most effectively bridged by interventions that attach skill-building to social identity and civic purpose. The present findings are consistent with these arguments and suggest that the civic scaffolding of the PCCM is a substantive component of its effectiveness, not a cosmetic framing choice.

Scalability: Enabling Conditions and Constraints

The pilot evaluation identified four enabling conditions that supported effective PCCM delivery: (1) institutional commitment to program integration rather than one-off implementation; (2) facilitator preparation that combined content knowledge with community familiarity; (3) formal mechanisms for local content contextualization; and (4) structured community partnership involvement that extended program reach beyond the primary participant cohort. Conversely, the primary scalability constraints were facilitator training requirements, the time demands of the twelve-week format on institutional schedules, and the resource requirements for local context adaptation. The Gaylo, Tado, and Gillikin (2024) evaluation of the "Share to Heal" public communication program provides a relevant comparative case: community-embedded programs that enrolled community organizations as co-designers rather than delivery recipients showed significantly higher participation retention and stronger behavioral outcomes than programs delivered by external facilitators without community co-design involvement. This finding reinforces the PCCM's emphasis on nonprofit partnership and community media integration as structural components rather than supplementary features.

Table 2. Scalability and Implementation Refinement Matrix for the Preventive Civic Communication Model

Implementation Mechanism	Enabling Conditions Identified	Observed Constraints	Evidence-Based Refinements	Adoption Pathway
Leadership Training Programs	Strong facilitator-community connection; cohort continuity; inoculation sessions properly sequenced	Facilitator preparation time; geographic access limits for youth	Formalize community contextualization protocol; embed refresher prebunking sessions at weeks 4 and 10	Youth-serving nonprofits; community foundations; civic coalitions
Educational Curricula	Cross-subject teacher coordination; school buy-in for civic embedding	Curriculum rigidity; competing instructional mandates; limited teacher preparation time	Develop modular 4-session and 6-session versions for institutional flexibility; create teacher facilitation guide with civic discussion protocols	K–12 schools; higher education; curriculum developers

Nonprofit Partnerships	Co-design model with community organizations; trust-building across program cycle	Short organizational funding cycles; staff turnover; partnership coordination demands	Pilot 2-year minimum partnership agreements; create shared outcomes dashboard for cross-site accountability	Local nonprofits; libraries; faith institutions; civic orgs
Community Media Initiatives	Youth media production increases engagement and ownership; connect to real civic issues	Technical production access disparities; need for media ethics training	Integrate low-barrier media production tools; add editorial ethics module to standard curriculum; document community media products as civic artifacts	Community radio/TV; school journalism programs; digital nonprofits

Refining the CBIM: Toward an Evidence-Informed PCCM

Based on the pilot findings, three specific refinements to the original CBIM architecture proposed by Augustine (2025) are warranted. First, community contextualization must be formalized as a program design requirement rather than a discretionary practice. The pilot evidence demonstrates that community-specific misinformation examples and locally anchored trust references are not merely motivational enhancements but substantively effective components of learning transfer (Komolafe, 2025). This requires that program adopters conduct a brief community information audit prior to delivery, identifying locally circulating misinformation, trusted community information sources, and relevant civic processes, and that these materials be systematically incorporated into session content. Second, the sequencing of inoculation-based prebunking sessions within the twelve-week program should be front-loaded rather than evenly distributed. Facilitator observations and sub-group outcome patterns suggest that participants who received concentrated prebunking content in the first three weeks showed stronger maintenance of manipulation-recognition skills through the program's final sessions. This is consistent with van der Linden's (2023) analysis of inoculation decay and the importance of threshold-level initial exposure. Third, the model should incorporate a community dissemination component in which program graduates are systematically equipped and supported to share key PCCM competencies with peers, family members, and community networks. Godfrey (2023) demonstrates that peer-mediated spread of misinformation-resistance competencies in community settings, when facilitated through structured social diffusion channels, can

produce multiplicative population-level effects not achievable through individual program participation alone. The PCCM's community media initiative component is well positioned to serve this function if explicitly oriented toward peer civic communication rather than purely journalistic production.

7. Limitations and Future Directions

Several limitations of the current evaluation warrant acknowledgment. The absence of a randomized control group limits causal inference; while the pre/post gains are large and consistent, alternative explanations, including maturation effects, social desirability in self-report measures, and selection effects in program enrollment, cannot be ruled out on the basis of the present design alone. Future evaluations should employ waitlist or active control conditions to strengthen causal attribution. The twelve-week program duration, while adequate for detecting short-term gains, does not allow assessment of the most important question for preventive communication: whether the competency gains observed persist over time and, critically, whether they reduce actual misinformation sharing behavior in naturalistic settings. Longitudinal follow-up assessments at 90-day and 12-month intervals are needed to assess behavioral maintenance and identify any competency decay patterns consistent with van der Linden's (2023) inoculation decay research. The geographic and institutional sample, while varied, does not represent the full range of communities in which the PCCM is intended to be deployed. Rural communities, communities with limited institutional infrastructure, and communities with particularly high distrust of formal civic institutions all present implementation challenges not adequately tested in the current pilot. Future iterations should include sites specifically selected for these characteristics. Finally, the facilitator effect observed across sites underscores the need for systematic facilitator training evaluation. Future research should assess the specific facilitator competencies, community familiarity, prebunking content knowledge, civic dialogue facilitation skills, most predictive of strong participant outcomes, and use this evidence to design targeted facilitator preparation curricula.

8. Conclusion

The pilot evaluation of the Preventive Civic Communication Model reported in this paper offers a substantive empirical contribution to the growing literature on evidence-based misinformation resilience interventions. The findings demonstrate that a twelve-week community-embedded program integrating inoculation-based prebunking, ethical communication pedagogy, and civic engagement development can produce large and consistent improvements in media literacy, ethical information-sharing behavior, and civic engagement intentions across diverse institutional and demographic contexts. These gains are analytically interpretable as evidence for the preventive approach's theoretical coherence: the competency

domains the model targets are mutually reinforcing, and their integration within a civic framework appears to generate effects that exceed what would be expected from any single-domain intervention. The evidence-based refinements proposed in this study, formalized community contextualization, front-loaded inoculation sequencing, and the addition of a peer dissemination component, provide an actionable pathway for model improvement ahead of broader adoption. The scalability matrix presented in Table 2 offers educational institutions and nonprofit organizations a structured decision framework for assessing their readiness to implement the model and for identifying the enabling conditions that must be established prior to launch. At a broader level, this study's findings are analytically consistent with the argument that misinformation resilience is, at its foundation, a civic challenge rather than merely a technological or informational one. Communities equipped with the skills to evaluate information critically, the ethical commitments to share it responsibly, and the civic identities to engage constructively in public discourse are inherently more resilient to misinformation than communities that are merely fact-checked or algorithmically curated. Building that resilience requires sustained, community-embedded investment in preventive civic communication, and the evidence generated by this pilot suggests that such investment is both effective and practically feasible.

References

- Amazeen, M. A., Krishna, A., & Eschmann, R. (2022). Cutting the bunk: Comparing the solo and aggregate effects of prebunking and debunking Covid-19 vaccine misinformation. *Science Communication*, 44(5), 570–600. <https://doi.org/10.1177/10755470221111558>
- Atkins, C., Cole-Jackson, S. M., Ross, A. D., Thompson-Leonard, A., & Young, M. (2020). Public school youth leadership. *Journal of Youth Development*, 8(2). <https://doi.org/10.37333/001C.001001007>
- Augustine, C. (2025). Integrating civic literacy, leadership development, and ethical media communication: A community-based model for youth engagement. [Unpublished manuscript].
- Bennett, J., & Hays, J. M. (2022). Leadership self-efficacy scale: Development and validation for community-based youth programs. *Journal of Leadership Education*, 21(3), 44–61.
- Cernicova-Buca, M., & Ciurel, D. (2022). Inoculation knowledge assessment in media literacy education: Theoretical foundations and instrument design. *Journal of Media Literacy Education*, 14(1), 22–39.

Dan, V., Paris, B. S., Donovan, J., Hamelaers, M., & Roozenbeek, J. (2021). Visual mis- and disinformation, social media, and democracy. *Journalism & Mass Communication Quarterly*, 98(3), 641–664. <https://doi.org/10.1177/10776990211035395>

Dewi, N. P. S., & Elfiandri, E. (2024). Overcoming disinformation and hoaxes in political communication: Promoting media and fact literacy. *Journal International Dakwah and Communication*, 4(1). <https://doi.org/10.55849/jidc.v4i1.663>

Dobrescu, P., Durach, F., & Vladu, L. (2022). Building resilience to disinformation through media and information literacy. *INTED Proceedings*, 3256–3264. <https://doi.org/10.21125/inted.2022.0863>

Elgammal, N., Basma, E., Bahnasy, H. A., Khattab, A. H., Tasneem, Q., Ehigie, D. E., & Abdelhamid, M. M. (2026). Decoding the Digital Purchasing Decision: A Psychological Study of Consumer Behavior towards Food Products through Social Media Platforms within the Framework of the SOR Model. *Frontiers in Communication*, 11, 1870114. <https://www.frontiersin.org/journals/communication/articles/10.3389/fcomm.2026.1870114/abstract#share>

Frau-Meigs, D. (2022). *Media and information literacy: Paradigm for the digital era*. UNESCO Publishing.

Gaylo, D. N., Tado, A. W. C., & Gillikin, B. (2024). Evaluating public feedback and perceptions on the "Share to Heal" program's efforts to combat the Philippine infodemic. *Asia-Pacific Journal of Social and Behavioral Sciences*, 22. <https://doi.org/10.57200/apjsbs.v22i0.406>

Godfrey, L. K. (2023). Countering misinformation on social media through educational interventions: Evidence from a randomized experiment in Pakistan. *Journal of Development Economics*, 164, 103108. <https://doi.org/10.1016/j.jdeveco.2023.103108>

Harich, J. (2024). Applying root cause analysis to determine the most effective media literacy strategy for preventing susceptibility to political misinformation [Preprint]. OSF. <https://doi.org/10.31235/osf.io/hvp97>

Kahne, J., Crow, D., & Lee, N.-J. (2012). Different pedagogy, different politics: High school learning opportunities and youth political engagement. *Political Psychology*, 34(3), 419–441. <https://doi.org/10.1111/j.1467-9221.2012.00936.x>

- Kapantai, E., Christopoulou, A., Berberidis, C., & Peristeras, V. (2020). A systematic literature review on disinformation: Towards a unified taxonomical framework. *New Media & Society*, 23(5), 1301–1326. <https://doi.org/10.1177/1461444820959296>
- Kasham, Z. S., & Iriaome, A. M. (2022). The politics of being understood: Communicative legitimacy and migrant subjectivity. *East African Scholars Journal of Education, Humanities and Literature*, 5(11), 231–239.
- Kennedy, K. J. (2012). Conceptualizing civic competences for contemporary youth: The role of the curriculum and schooling. In W. O. Lee, D. L. Grossman, K. J. Kennedy, & G. P. Fairbrother (Eds.), *Citizenship education in Asia and the Pacific* (pp. 17–32). Kluwer Academic.
- Komolafe, I. (2025). Enhancing workforce readiness and economic mobility through communication competence and policy-driven training models. *Econova: A Journal of Business, Commerce and Economic Research*, 2(2), 47–63.
- Lee, A. Y., Moore, R. C., & Hancock, J. T. (2024). Building resilience to misinformation in communities of color: Results from two studies of tailored digital media literacy interventions. *New Media & Society*. <https://doi.org/10.1177/14614448241227841>
- Levitt, R., & Grubaugh, A. (2024). Media literacy gaps among adolescents: Implications for civic education and school-based interventions. *Journal of Adolescent Education*, 12(2), 88–107.
- Monkman, K., & Proweller, A. (2016). Civic agency and youth leadership: Renegotiating the civic in community contexts. *Education, Citizenship and Social Justice*, 11(1), 32–46. <https://doi.org/10.1177/1746197915626084>
- Moore, R. C., & Hancock, J. T. (2022). A digital media literacy intervention for older adults improves resilience to fake news. *Scientific Reports*, 12, 4005. <https://doi.org/10.1038/s41598-022-08437-0>
- Owen, D., & Irion-Groth, A. (2024). Preparing students for civic engagement through Project Citizen. *APSA Preprints*. <https://doi.org/10.33774/apsa-2024-mfngj>
- Pipchenko, N., & Yuriy, A. (2025). Media literacy and psychological resilience: The Swedish approach to countering disinformation. *Actual Problems of International Relations*, 162(1), 16–23. <https://doi.org/10.17721/apmv.2025.162.1.16-23>

Roozenbeek, J., vander Linden, S., & Nygren, T. (2020). Prebunking interventions based on "inoculation" theory can reduce susceptibility to misinformation across cultures. *Harvard Kennedy School Misinformation Review*, 1(2). <https://doi.org/10.37016/MR-2020-008>

Shera, W., & Murray, J. M. (2016). CITY Leaders: Building youth leadership in Toronto. *SAGE Open*, 6(3), 1–11. <https://doi.org/10.1177/2158244016659118>

Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., & Cikara, M. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4(5), 460–471. <https://doi.org/10.1038/s41562-020-0884-z>

vander Linden, S. (2023). Countering misinformation through psychological inoculation. *Advances in Experimental Social Psychology*, 68, 219–269. <https://doi.org/10.1016/bs.aesp.2023.11.001>

vander Linden, S., Roozenbeek, J., & Compton, J. (2020). Inoculating against fake news about COVID-19. *Frontiers in Psychology*, 11, 566790. <https://doi.org/10.3389/fpsyg.2020.566790>

Xushnud, G. Z. (2024). Developing youth critical thinking through media education in the age of disinformation. *Media Pendidikan, Gizi dan Kuliner*, 16(2). <https://doi.org/10.17509/mpgk.v16i2.83030>

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