

## **Does question type matter? using SMS to deliver healthy relationship messages**

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Research on short messaging service (SMS) campaigns has shown that bidirectional messages (message that invites a response) is associated with improved health results compared to unidirectional messages (no response elicited). However, little is known about the features of each message type.

This study examines how various message styles and enrollment length influenced participant engagement in SMS campaign.

525 adolescents from 4 high and middle schools in Texas participated in a SMS campaign and received three messages per week (48 total) about healthy relationships. The messages were either bidirectional (i.e., True/false, Quiz, "MORE" for information) or unidirectional (i.e., Fact, Hotline). The participants were 72% female, 47% White, 27% Hispanic, 15% Black, and 11% Other, with the majority (88%) in 9th-12th grades.

Chi-square test of independence suggested that response rate of the three bidirectional message styles were all higher compared to the two unidirectional message styles (all  $p < .001$ ). Among bidirectional messages, response rate was highest for True/false messages (31.5%), followed by Quiz (26.3%) and "MORE" (17.8%) messages. The response rate for the two unidirectional message styles, Hotline (4.7%) and Fact (5.1%) messages did not vary significantly ( $p = 1$ ).

Logistic regression analyses testing response rate in association with message style and timing during the campaign, controlling for gender, race, and grade level suggested that the longer participants enrolled in the campaign, the less likely they were to respond to any messages (OR=0.971, 95%CI: .967-.975). Participants were 27.1 times (95% CI: 20.5, 36.2) more likely to respond to True/False messages, 22.1 times (95% CI: 16.4-30.0) more likely to respond to Quiz messages, and 9.43 times (95%CI: 7.15-12.6) more likely to respond to "MORE" messages.

Bidirectional messages fostered greater engagement than unidirectional messages, especially with True/False and Quiz message styles. The finding has important implications for SMS campaign to increase engagement.