

**Health Coaching Support in Technology-based Interventions
for Meeting Health Goals**

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Background

Overweight/obesity is strongly linked to mortality from multiple chronic diseases. For health disparity-facing populations, including racial/ethnic minority and low-income communities, interventions promoting goal setting and behavioral change for nutrition, physical activity, and weight are a national health priority. There has been a rapid expansion in the use of digital technologies for delivering health interventions, but there is a need for more study of the potential use of these technologies among Veterans. This evaluation entails testing an automated SMS texting protocol intended to offer Veterans encouragement, tips, and other actionable information to assist in the pursuit of physical activity and healthy eating goals.

Research Design/Methods

We completed the development of materials and procedures to support a local, one-site evaluation focused on use of VA's SMS automated texting system. The texting protocol offered Veterans encouragement, tips, and other actionable information over the course of an 8-week period to assist in the pursuit of physical activity and healthy eating goals.

To test materials and procedures, we recruited one Veteran from a single VA medical center. A research assistant called the Veteran to administer a series of baseline survey measures. As part of this baseline data collection, the research assistant also led the Veteran through a process of identifying and setting a goal related to either diet or physical activity. This was achieved by first providing a brief lesson about SMART goals (Specific, Measurable, Achievable, Realistic, and Time-bound) and then asking the Veteran to state their goal. If the goal was too general, the research assistant worked with the Veteran to further revise the goal into a SMART goal. This process resulted in the Veteran articulating a goal that they wanted to *pursue* over the course of their participation. At the conclusion of the baseline data collection, the research assistant then enrolled the Veteran in the 8-week texting protocol through the automated texting system's portal and mailed a welcome letter and FAQ sheet to the Veteran as well as a reminder of the goal that was set. The text messages that comprised the protocol were designed based on principles of behavioral change and were intended to motivate, support, and spur action toward the goals that were self-identified at baseline. Messages included standardized elements to encourage behavior change, like self-monitoring, instructions on how to perform specific behaviors, action planning, social support, feedback on goals, and problem-solving tips. In addition, we included a selection of light-hearted messages to enhance engagement with the texting protocol and assessment messages to gauge perceptions of the program. The automated texting system delivered messages daily over the course of the 8-week protocol period.

At the conclusion of the 8-week texting protocol, the research assistant again called the Veteran to administer a series of follow-up survey measures and to gather open-ended feedback through semi-structured interview questions about their experiences with the text messages. At the conclusion of follow-up data collection, the Veteran was mailed a thank you letter and a gift card as remuneration.

Results/Conclusions

We finalized a set of measures and materials, including baseline and follow-up surveys and a semi-structured interview guide, and an 8-week automated SMS texting protocol founded on established principles of behavior change. We enrolled one Veteran to pilot our materials and procedures with the intention of subsequently enrolling 40 Veterans (N) in a larger evaluation after any necessary revisions to the materials and procedures were made; however, these enrollment plans were halted because of COVID-19 risks and precautions.

The Veteran with whom we piloted our materials and procedures was 81 years old, male, single (never been married), white, had completed college /professional training, was not using SNAP (Supplemental Nutrition Assistance Program) at the time of participation, and self-reported having high

blood pressure and treating it with medication. The Veteran set a goal to lose a specific, realistic amount of weight during the course of the program.

We examined scores of psychosocial factors before and after completion of the texting protocol. This Veteran increased confidence to eat healthfully in a variety of situations (4.1 to 6.4; scale of 0: not at all confident to 10: very confident) and be physically active in a variety of situations (3.5 to 6.0 on a scale of 0: not at all confident to 10: very confident); lowered perception of goal difficulty (4 to 3; scale of 1: low difficulty to 5: high difficulty); and slightly lowered health confidence (1 to 1.75; scale of 1: high health confidence to 4: low health confidence).

In terms of perceptions of the texting protocol, this Veteran reported that the number of text messages they received was just right, the texts were very useful in helping meet their health goal and would be very likely to recommend this program to others. The Veteran did not have changes to the program to recommend.

Overall, some positive effects were reported by the Veteran and perceptions of the program were positive. These development activities are now complete and preparations for a full evaluation may commence at a later date.