1. **Title:**

Factors influencing engagement, perceived usefulness and behavioral mechanisms associated with a text message support program

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3. **Key words:**
   text messages, enagagement, ehealth, cardiovascular disease

4. **Abstract text:**
   a. **Background and aims**

   Understanding mechanisms and factors that influence behavior change is necessary to optimize implementation and program design. We aimed to identify factors influencing engagement with a text messaging intervention in terms of usefulness, delivery and links with behavior change techniques.

   b. **Methods**

   Mixed methods qualitative design combining four data sources; (i) analytic data, (ii) survey to identify usefulness and engagement, (iii) focus groups to identify barriers and enablers to implementation and, (iv) screening logs to examine generalizability. This evaluation was conducted within the TEXTME RCT. Qualitative data were interpreted using thematic analysis.

   c. **Results**

   307/352 of recruited patients with heart disease completed the survey and 25 participated in a focus group. Factors identified as increasing program engagement included (i) ability to save/share messages, (ii) having provider support, (iii) feeling supported by the program, (iv) program initiated close to hospitalization, (v) personalization of messages, (vi) opportunity for face-to-face contact and (vii) content from a credible source. Diet and physical activity messages were most valued, four messages per week was ideal, random timing kept participants interested and most participants felt program duration could have been longer than six months.

   d. **Conclusion**

   This study provides context and insight into factors influencing engagement with a text message program aimed at health-related behavior. Results suggests program components that enhance success and require integration to optimize implementation.