Transforming evidence into better prevention for adolescent dating violence: The Better Me app

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Background
- U.S. data in 2011 indicate that 9.4% of high school students had been intentionally physically hurt by a dating partner during the past 12 months. [1]
- The first step to prevent dating violence is assisting adolescents to recognize and avoid a violent relationship.
- The complex nature of the dating violence phenomenon often makes it difficult for adolescents to recognize dating violence.
- While some adolescents may be able to understand what a healthy relationship looks like, admitting to themselves that they are victims of relationship violence is challenging. [2]

Background
- The adoption of smartphone-based interventions is a promising area for health researchers and public health professionals. [3,4]
- The number of downloaded mobile applications has increased tremendously, from 300 million apps in 2009 to five billion in 2010. [2]
- Apps aimed solely for the prevention of adolescent dating violence are limited.
- 95% of the mobile health apps are offered directly to customers without testing.
- Only 10% of smartphone owners have downloaded health apps. [4]
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Apps against Dating/Intimate Partner Violence

- Love is not Abuse (LINA) (August 2011)
- The White House Apps against Abuse challenge (November 2011)
  - Circle of 6
  - On Watch
- IOM Apps Challenge to Prevent Domestic Violence (November 2012)
  - Wisdom of the Children
  - Circle of 6
  - R3
  - HealtheSAVE

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Apps against Dating/Intimate Partner Violence

- One Love Danger Assessment (late 2012)
- Educational apps
  - Educational Teen Dating Violence New York City (June, 2013)
  - Safe Dating For Teenagers (June 2013)
  - Dating & Relations Mega Guide (April 2013)

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Purpose of the Study

- To describe the development process of the Better Me mobile application (app), which can potentially improve the prevention of adolescent dating violence
What we believe

- This app is developed as a tool to support pre-existing school-based prevention programs and conventional forms of technology.
- This app is targeted for adolescents who may be at high risk of relationship violence.
  - Provide adolescents a self-control tool for monitoring their mood, partner's behaviors, and events that may lead to conflicts.
  - Present quantifiable feedback about potential and/or actual violence in a vivid visualization of charts.
  - Give adolescents a danger text-sound alert when an abusive act is recorded.
  - Provide trusted, helpful, and available resources in hand.

Development Process

- Age, Gender, Literacy Content, Features, Functionality.
  - The use of daily life.

The Better Me app

- is designed for the Android platform.
- is developed based on:
  - Cognitive Behavioral Interventions.
  - A consumer-driven center method.
  - The Conflict in Adolescent Dating Relationship Inventory (CADRI) (Wolfe et al., 2001), is a self-report questionnaire.
  - Threatening behaviors, relational abuse.
  - Physical, Sexual, Verbal-Emotional abuse.
- is written at the 5th-grade level.
- has five main tabs: My Relationship, Chart, Calendar, Get Help, and Setting.
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**My Relationship**

- Allows app users to monitor their moods, relationships, and events that might lead to conflicts.

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**Calendar**

- Red "x" refers a recorded abusive act.
- Today’s date appears in blue color.

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**Two-Week Charts**

- Users can view the graph in a two-week mode
- The "x" refers to abusive acts recorded previously on the selected date.
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Get Help

For immediate assistance

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Setting

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Future Plans

• Use multiple approaches to inform the app's design, content, and functionality.
  – Ask potential end-users to perform tasks using a think aloud protocol
  – Observe the end-users in real-time using the app
  – Conduct a survey or an interview with the end-users about their thought toward the app and intention to use in the future
  – Ask for feedback from experts
  – Test the feasibility of the use of the app in daily life
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Key Lessons Learned

• Validating whether there is a real need for an app early in the design and development process.
• Simplify the CADRI scale
• Tying the app into research/database
• Improving user interface

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Key Lessons Learned

• Translating potential end-users needs (i.e., adolescents) into the design and development – IRB, “Hard to reach” population
• Testing the app with potential end-users to be sure that the app works as expected
• Improving application data security
• Building a cross-platform app

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References
