

## Background

- The study team at the University of Illinois completed a randomized controlled trial using a novel patient centered educational intervention tablet application “MyIDEA” to increase patient knowledge and antithrombotic medication adherence (1)
- The loss of participants to follow-up during an interventional study makes it difficult to evaluate the effectiveness of the study (2)
- When biological values are not available, we use medication possession ratio to check for medication adherence
- Subjects’ health literacy was measured using the REALM SF tool (3)
- The study team noted a large number of subjects who were lost to follow-up for their second and third visit
- Previous research has identified low health literacy as a risk factor for loss to follow up (4)

## Objectives

- The objective of this analysis is to assess whether there was a difference between the health literacy levels among patients who followed up and those who did not follow up

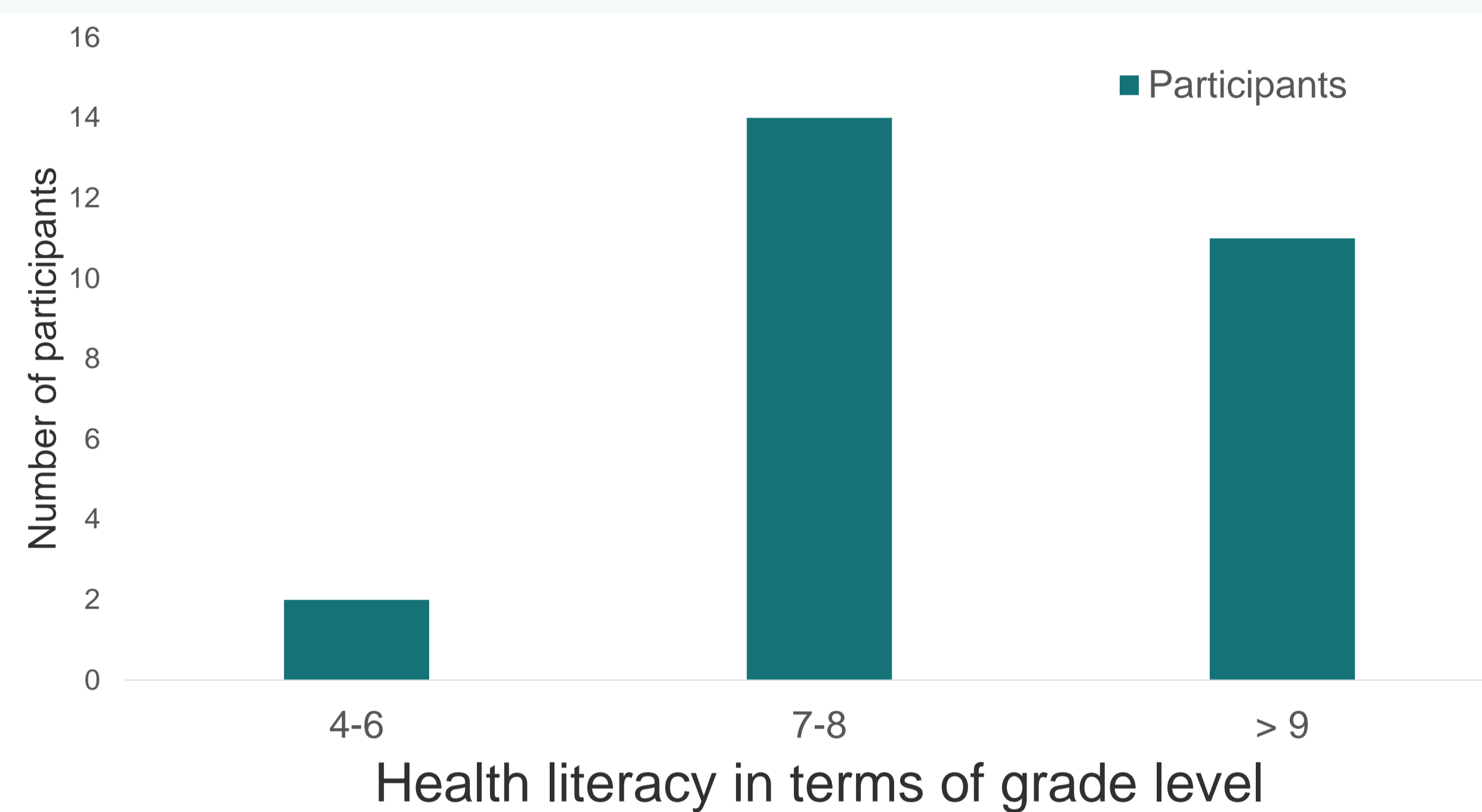
## Research Design

- Subjects were to have two follow up visits after the initial enrollment: the first was at 1 month and the second at 3 months for their third visit
- Subjects were divided into two groups: those that did follow up for their second and third appointment and those that had a loss to follow up
- Independent t-test was used to compare differences between loss to follow-up and attendance to follow-up participants

## Health Literacy & Demographics of participants

| Health literacy from REALM-SF | Follow up to visit 2 (N= 13) | Loss to follow up to visit 2 (N=14) | P value |
|-------------------------------|------------------------------|-------------------------------------|---------|
| Average                       | 8.4 ± 0.9                    | 8.1 ± 0.8                           | 0.45    |
| 4-6 grade                     | 1                            | 1                                   |         |
| 7-8 grade                     | 5                            | 9                                   |         |
| >9 grade                      | 7                            | 4                                   |         |

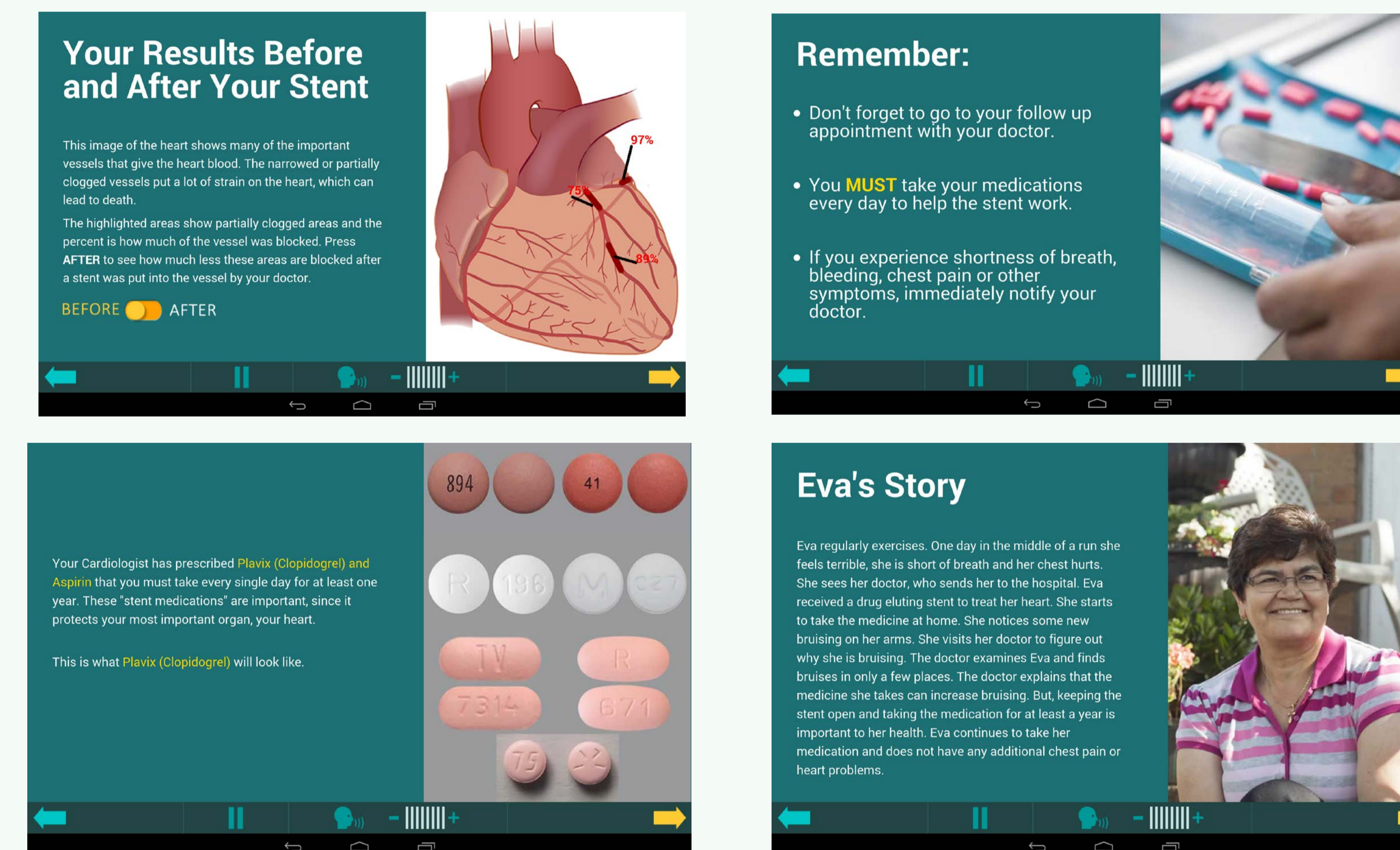
| Characteristics    | N= 27  | %    |
|--------------------|--------|------|
| Age in years (avg) | 61 ± 7 |      |
| Gender             |        |      |
| Female             | 12     | 44.4 |
| Male               | 15     | 55.5 |
| Race/Ethnicity     |        |      |
| African American   | 17     | 62.9 |
| White              | 7      | 25.9 |
| Asian              | 2      | 7.4  |
| More than one race | 1      | 3.7  |



## Results

- 27 participants were assessed
- The majority of participants had a reading level of 7-8 grade
- 13 participants attended their visit 2 follow-up appointments, 14 participants had a loss to follow-up to the visit 2 appointment
- 12 participants attended their visit 3 follow-up appointment, 15 participants had a loss to follow-up visit 3
- The average REALM-SF score did not statistically differ between the two groups
- There was no significant difference in health literacy levels between the two groups (p=.45)

## MyIDEA application



These slides are screenshots of the MyIDEA application which is used to help educate participants about their medications.

## Conclusion

- Unlike previous literature, our study did not show health literacy to be associated with the attrition rates.
- Most of our participants had low health literacy
- Future studies should examine other reasons for attrition in subject cohorts who have a large amount of low health literacy

## References & Funding

1. Boyd AD, Moores K, Shah V, *et al.* My interventional drug-eluting stent educational app (MyIDEA): Patient-centered design methodology. *JMIR Mhealth Uhealth.* 2015;3:e74.
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3. Arozullah AM, Yarnold PR, Bennett CL, *et al.* Development and validation of a short-form, rapid estimate of adult literacy in medicine. *Med Care.* 2007;45:1026-33.
4. Reinwand DA, Crutzen R, Elfeddali I, *et al.* Impact of educational level on study attrition and evaluation of web-based computer-tailored interventions: Results from seven randomized controlled trials. *J Med Internet Res.* 2015;17:e228.

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