

## APPENDICES A, B and C

## Appendix A: CES-D guideline

Follow the instructions below

1. Make tentative diagnosis:
2. On a scale of 1 to 5 how would you rate your degree of certainty regarding your diagnosis? **Circle one**

**Least certain 1 2 3 4 5 Most certain**

3. **Score the questionnaire below according to the response given**
4. Please add the total score in each column, and then
5. For the following 20 items, please select the choice that best describes how you have felt over the past week:

Item	Rarely or none of the time	Some or a little of the time	Occasionally or a moderate amount of the time	Most or all of the time
	(<1 day)	(1-2 days)	(3-4 days)	(5-7 days)
	Score: 0	Score: 1	Score: 2	Score: 3
<b>1. Are you bothered by things that usually don't bother you?</b> <i>Sometimes (1)</i>				
<b>2. Do you feel like not eating and you have poor appetite?</b> <i>Almost always but I still manage to eat something (3)</i>				
<b>3. Do you feel you cannot stop feeling sad even with help from your family or friends?</b> <i>Only a few times (1)</i>				
<b>4. Do you feel you are just as good as other people?</b> <i>I have been feeling as unworthy as a criminal most of the time (3)*</i>				
<b>5. Do you have trouble keeping your mind on what you are doing?</b> <i>It has been really difficult to do</i>				

<i>my work or my usual chores (3)</i>				
<b>6. Do you feel depressed?</b> <i>Yes, on most days (3)</i>				
<b>7. Do you feel that everything you do requires a lot of work?</b> <i>Yes, I feel tired most of the time (3)</i>				
<b>8. Do you feel hopeful about the future?</b> <i>The future is not looking good at all. I think about this a lot (3)*</i>				
<b>9. Do you think your life has been a failure?</b> <i>Yes, I believe this is true (3)</i>				
<b>10. Do you feel scared?</b> <i>About the future and work (2)</i>				
<b>11. Is your sleep broken?</b> <i>I don't usually sleep well (3)</i>				
<b>12. Do you feel happy?</b> <i>Not at all (3)*</i>				
<b>13. Do you talk less than usual?</b> <i>I speak only when spoken to which is not like me (3)</i>				
<b>14. Do you feel lonely?</b> <i>I feel alone (3)</i>				
<b>15. Do you feel people are unfriendly?</b> <i>Not really, but I don't want to be around others (1)</i>				
<b>16. Do you enjoy life?</b> <i>Not at all (3)*</i>				
<b>17. Do you have crying spells?</b> <i>I found I was getting tearful over nothing (2)</i>				

<b>18. Do you feel sad?</b> <i>Always (3)</i>				
<b>19. Do you feel that people dislike you?</b> <i>Yes, because I am not worthy (3)</i>				
<b>20. Do you feel you cannot get yourself to do things?</b> <i>It is so hard to do things when you are tired all the time (3)</i>				
<b>Total score on each column</b>				
<b>Grand total score</b>				

Note: "patient" response (correct score), (correct score reverse coded) \*

## Appendix B: SBQ-R: Clinical guideline

Patient name \_\_\_\_\_ Date of visit \_\_\_\_\_

**Instructions:** Please check the number beside the statement or phrase that best applies to you.

**1. Have you ever thought about or attempted to kill yourself?** (check one only)

1. Never
2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself, but did not want to die
- 4b. I have attempted to kill myself and really hoped to die

**2. How often have you thought about killing yourself in the past year?** (check one only)

1. Never
2. Rarely (1 time)
3. Sometimes (2 times)
4. Often (3-4 times)
5. Very often (5 or more times)

**3. Have you ever told someone that you were going to commit suicide, or that you might do it?** (check one only)

1. No
- 2a. Yes, at one time, but did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

**4. How likely is it that you will attempt suicide someday?** (check one only)

0. Never
1. No chance at all
2. Rather unlikely
3. Unlikely
4. Likely
5. Rather likely

6. Very likely

© Osman et al., (1999) Revised. Permission for use granted by A. Osman, MD

<b>Item 1: taps into <i>lifetime</i> suicide ideation and/or suicide attempts</b>			
Selected response 1	Non-suicidal subgroup	1 point	
Selected response 2	Suicide Risk Ideation subgroup	2 points	
Selected response 3a or 3b	Suicide Plan subgroup	3 points	
Selected response 4a or 4b	Suicide Attempt subgroup	4 points	<b>Total Points</b>

<b>Item 2: assesses the <i>frequency</i> of suicidal ideation over the past 12 months</b>			
<b>Selected response:</b>	Never	1 point	
	Rarely (1 time)	2 points	
	Sometimes (2 times)	3 points	
	Often (3-4 times)	4 points	
	Very often (5 or more times)	5 points	<b>Total Points</b>

<b>Item 3: taps into the <i>threat</i> of suicide attempt</b>			
Selected response 1		1 point	
Selected response 2a or 2b		2 points	
Selected response 3a or 3b		3 points	<b>Total Points</b>

<b>Item 4: evaluates <i>self-reported likelihood</i> of suicidal behavior in the future</b>			
<b>Selected response:</b>	Never	0 points	
	No chance at all	1 point	
	Rather unlikely	2 points	
	Unlikely	3 points	
	Likely	4 points	
	Rather likely	5 points	
	Very likely	6 points	<b>Total Points</b>

**Sum all the scores circled/checked by the respondents.  
The total score should range from 3-18**

**Total Score**

© Osman et al., (1999) Revised. Permission for use granted by A. Osman, MD

## Appendix C: ASRaDA mHealth technology

### ASRaDA CES-D

The screenshot shows a mobile application interface for the ASRaDA CES-D questionnaire. The top status bar displays various icons, signal strength, 80% battery, and the time 14:13. The app header is blue with a hamburger menu icon, the text 'ASRaDA', and a vertical ellipsis icon. Below the header, the title 'Center for Epidemiologic Studies Depression Scale (CES-D)' is displayed. The main content area contains the following text: 'For the following 20 items, please select the choice that best describes how you have felt over the past week:'. Below this text are four columns of response options: 'Rarerly', 'Sometimes', 'Occasionally', and 'Most of the time'. Each column contains four radio buttons. To the left of these columns are 20 numbered items for selection.

	Rarerly	Sometimes	Occasionally	Most of the time
1. I was bothered by things that don't usually bother me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I did not feel like eating; my appetite was poor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I felt that I could not shake off the blues even with the help of my family or friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I felt that I was just as good as other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I had trouble keeping my mind on what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I felt depressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I felt everything I did was an effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I felt hopeful about the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I thought my life had been a failure.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I felt fearful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My sleep was restless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I was happy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I talked less than usual.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I felt lonely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. People were unfriendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I enjoyed life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I had crying spells.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I felt sad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I felt that people disliked me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I could not get "going".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ASRaDA SBO-R

The screenshot shows a mobile application interface for the ASRaDA survey. The top status bar displays various icons, signal strength, 79% battery, and the time 14:14. The app header is blue with a hamburger menu icon on the left, the text "ASRaDA" in the center, and a vertical ellipsis menu icon on the right. Below the header, the title "Suicide Behaviors Questionnaire-Revised" is displayed, followed by the instruction: "Please check the answer for each the statement or phrase that best applies to you." The survey content is as follows:

**1. Have you ever thought about or attempted to kill yourself? (check one only)**

- 1. Never
- 2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself, but did not want to die
- 4b. I have attempted to kill myself, and really hoped to die

**2. How often have you thought about killing yourself in the past year? (check one only)**

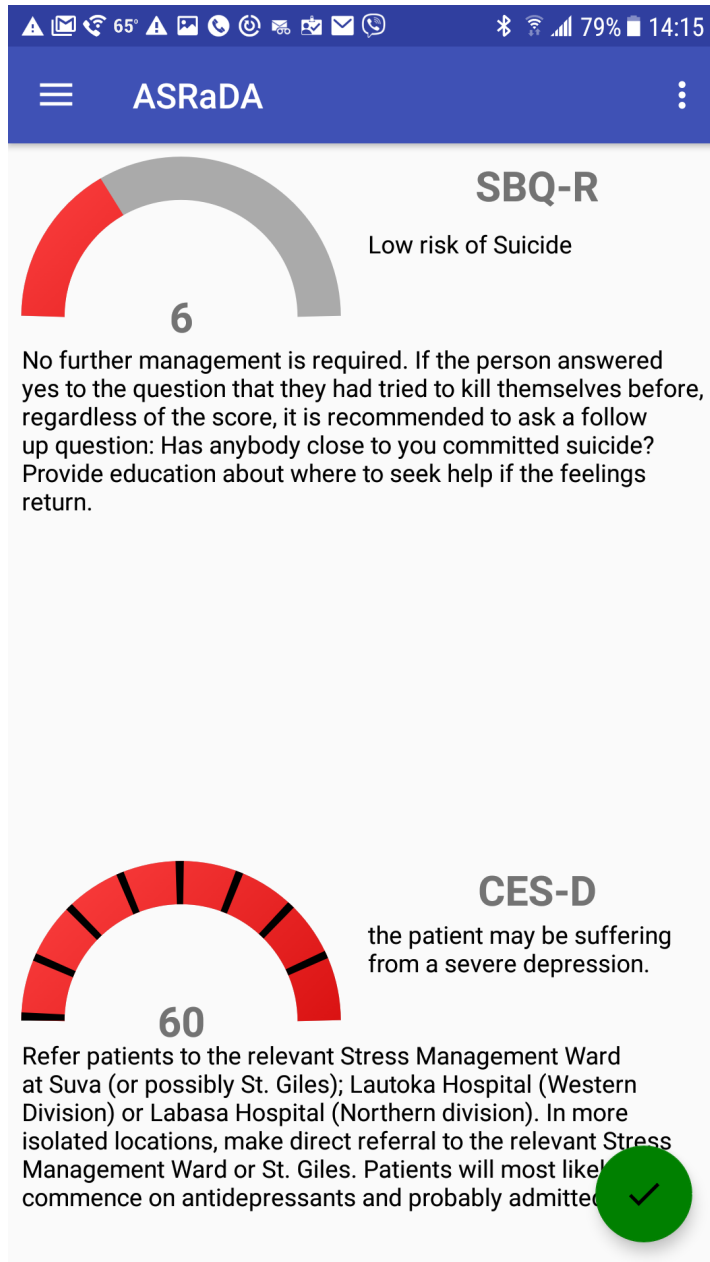
- 1. Never
- 2. Rarely (1 time)
- 3. Sometimes (2 times)
- 4. Often (3-4 times)
- 5. Very Often (5 or more times)

**3. Have you ever told someone that you were going to commit suicide, or that you might do it? (check one only)**

- 1. No
- 2a. Yes, at one time, but did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

**4. How likely is it that you will attempt suicide someday? (check one only)**

- 0. Never
- 1. No chance at all
- 2. Rather unlikely
- 3. Unlikely

*Response choice selected using ASRaDA*



### Appendix D: An example of coding of depression case

<b>Severe Depression Clinical Text</b>	<b>Inferences from Protocol</b>	<b>Tentative diagnosis</b>
The above symptoms started after Ravi's wife was diagnosed / with breast cancer /	There's already a problem there, / the wife being diagnosed with Breast cancer. / Automatically, people think there is going to be a separation/ if it is not treated early. /	Late diagnosis of cancer, / [wife] would lead to death / [and he] will be alone. /
She has been / in and out of hospital / for treatment /	I was thinking there's all that popped up in his head. /	[Ravi] mentally preoccupied / with family concerns. / Worry. /

Clinical text is taken verbatim from the severe depression clinical case

Inferences from protocol are what CHNs inferred from the clinical case text during the think aloud

Tentative diagnosis is the equivalent tentative diagnostic category