

E-Care @ Home

WP1: Needs assessments

D.1.19 b Ongoing patient usability assessments

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| Report on user consultations conducted at In-Geest  |
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1. Overview:
This doc provides written summaries of all the usability assessment interviews that have taken place with patients in care at GGZinGeest for bipolar disorder or recurrent depression in the period from November 2013 to February 2014. It starts off with a format for the demonstrations and interviews that we conducted (paragraph 2.1), to illustrate the topics and questions that were addressed. The remainder of chapter 2 provides anonymous summaries of occasions where we met users individually for feedback on demo material. These sessions were conducted by a clinician/researcher of the ecare@home project group working at the department for older adults at Ingeest (Josien Schuurmans). At the end of the document, chapter 3 provides a list of recommendations to improve the usability for the ecare@home system.
2. Assessments

2.1 Format of demos

2.1.1. Early demo testing of contacts, calendar and life chart.

For our first round of assessments, we presented two different demos (contacts and calendar) in two styles. In this first round, we compared the two different styles by asking interviewees to complete the tasks below using example 1 and example 2 afterwards so that each interviewee can compare the two.

·      Contacts – “Can you find Mary Smith and start a call with her?

·      Calendar – “Can you find December 25th and create a note in your calendar named “Christmas”?

These demos were designed to test if users guess to scroll and/or swipe to find the person or date they are looking for and whether they guess to press the item or buttons to start a call or create an event (can they tell what can be moved or pressed).

The life chart demo consisted of two different styles (a combined view and stacked view) of a graphic output of different measurements (such as mood, activity level, meds). Interviewees were asked to comment on the different styles and on whether they were able to read and interpret the graphic output.

* 1. Individual need assessment interviews

Minutes Needs assessment interview Client 1 JS0903 dd.

***Subject is a 63-year old woman, diagnosed with bipolar disorder.***

1. **Intro:**

Ms. Z. uses a signal plan (a description of the signals that precede a possible manic/depression episode in three levels of severity; green, orange, red and the actions she can take at each stage to prevent worse). When she is overly active, this is a signal for her, which may mark the onset of a manic episode. When she is aware of this, she cancels appointments and takes a few days off. Mrs Z. is quite computersmart. She has a smartphone with a touchscreen and is an active user of social media and social games. She also owns a PC. She does not have a tablet.

Partner/family and friends

Ms Z does not have a relationship. She is reluctant to ask someone to come with her to the assessments. She has been asked about this, but comes in on her own. She would not like to ask her daughter because she thinks her daughter may not feel like it. Her brother has told her recently that he thinks she is too busy, but she disagrees. Her brother can’t explain to her what signs make him feel worried. Overall, relationships with her daughter and her family are complicated and ms Z feels that she is being labeled as a patient too easily, whereas they are not the easiest people to deal with either. Her daughter is the one who is most in sink with when she gets off track, but she also keeps her distance because of past experiences.

**Demo 1.**

Contacts- Can you find Mary Smith and start a call with her?

Contacts style 2 is presented first. Mrs Z. is used to swiping but initially can’t find Mary Smith, because she is not on the screen and there are no swiping cues. She thinks there should be arrows to mark top or down or a slide bar somewhere to make this more clear. When she does find Mary Smith after I demonstrate that she can swipe the screen, she has trouble finding the start call button. She wants to press the telephone number.

When presented with the contacts style 2 she initially does not see the difference. She suggests it’s other people. When pointed out what the difference is, she states that she prefers contacts style 1 because the contacts stand out more against the black background.

Overall, the buttons sometimes do not respond.

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

Ms Z. has no trouble with the calendars. Calendar style 2 is presented first. She can easily find December. She uses the arrows for this. The fact that she can also swipe the screen is not clear at first. She can’t find the save entry button at first. She feels that ‘save entry’, apart from the fact that this is an English term, is not clear for older adults with little experience. It’s computer language. It should simply say something like ‘make appointment or save appointment. She prefers Calendar style 1. The plusses in calendar 2 are too big and they are redundant. Calendar 1 is more tranquil on the eye.

Life chart demo of combined and stacked view (version 1)

Ms Z. feels the plus and minus signs to make the bars in the screen lighter are not intuitive, and may be redundant. You should be able to make the bars appear or disappear and that would be enough. Overall the graph is difficult to read (combined view). The stacked view is a bit easier. Ms. Z is distracted by the tab buttons on the bottom. She likes the colours of the graph. She thinks that the mood rating (-5 to + 5) is very usable for people with bipolar disorder. However, she feels that the assessments within the smart life chart should just contain mood, sleep and activity levels, since these are the three things that matter most. With too many readings the graph becomes too complicated, especially for older adults.

Minutes Needs assessment interview Client 3 DD1707 dd. 10072013

*Subject is a 67 year old female, first diagnosed with bipolar disorder in the seventies.*

1. **Introduction**

Ms D. has a relationship but does not live together with her partner. The first time she experienced a manic episode it was very intense and it had a lot of impact on her. It happed when she was in college. She started to question herself ; who she was and what was happening to her. She had a lot of sleeping problems during that time and used Valium. The first episode had a duration of 1 year. After a few years she had her first relapse. After that her mood kept fluctuating. She already received intensive help for anorexia. Eventually she was referred to GGZinGeest and got diagnosed with bipolar disorder.

Her symptoms are very irregular. She is not able to prevent them yet but she is able to handle her symptoms in the right way. This shortens the depressive episode.

Partner

At the second visit, ms D. brings her partner. He has developed his own theories about mental health, and feels that it is all a matter of balance. That balance is dynamic and not static, and therefore it is natural that the balance fluctuates. You get in trouble when the balance shifts and gets stuck in a certain position. He feels that ms D. gets in trouble when ideas that she has learned from her upbringing, such as the fear that other people may think that you are stupid, drag her down. He has had the same problem, he used to suffer from phobias as a result, but has overcome them, because he has managed to let go of the ideas that got him into trouble. Although he and ms D. do not live together, he is very much involved. They talk to each other on the phone at great length and see each other very frequently. They have just heard of a study in Germany about married couples talking approx. 15 minutes a day to each other on average. For them, this is unfathomable. Ms D ‘s partner is very reluctant about modern technology and computers, as is ms D. His children have bought him a laptop that is of Chinese-German origin, which is awful because both countries are evil in his view. He is very surprised that ms D has agreed to try out the tablet that we are developing. However, he does see how this could help in the treatment, and he is open to the idea that although neither of them will ever be fully submerged in the internet and in social media, perhaps a little acquaintance with the internet could open doors that are now closed off.

When asked about his role in keeping tabs on ms D.’s health, they both state that he is very involved. He tries to help her when she gets ‘stuck’, by recounting his theories about why she gets stuck in the first place. They are open to the idea of simultaneously filling in a mood chart or smart life chart about how she’s doing. They always discuss everything openly, and so that would just add to what they are already used to. Perhaps it would give new information or insight. Both ms D. and her partner respond to the subsequent demo of the system.

Contacts- Can you find Mary Smith and start a call with her?

Contacts style nr 2 is presented first. She can’t find Mary Smith and does not know how she might find her. When I state that there is more contacts at the bottom of the screen, she tries pushing the bottom of the screen. Ms. D. is not used to touch screens and tablets. She needs some instructions on how to swipe the screen. However, when I show her this, she immediately does it correctly and is able to find Mary Smith. She does not know how to start calling her. She wants to push the tab contacts again, and she thinks maybe the settings button would do something. When I tell her she can push the contact button, she does, but initially it does not respond. She is successful the second time. When she is in the contact screen of Mary Smith, she has no idea how to start a call. Neither does her partner. They don’t find the start call button until I point it out. When presented with contacts style 1 both ms D and her partner do not see the difference. They think the tabs on the bottom changed or that the contacts themselves are different. When I clearly point out the difference, they both state they prefer contacts style 1. It is more tranquil on the eye.

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

Calendar 2 is presented first. Ms D. has little trouble finding December, she uses the arrows and after I show her that she can also swipe, she succeeds at swiping the screen from right to left with no trouble. However, she has no idea how to put something in the calendar. I have to show her that she can push the date. Both of them feel the save entry button is computer language and is not clear. They both have a clear preference for calendar 1. They feel the plus signs in calendar 2 are not informative and actually make them feel that the calendar is full and that they can’t add anything. It is not a prompt to add something, ms D.’s partner suggests that this might be a cultural difference with Britain. Calendar 1 is more tranquil and ‘open’, there is more room to add appointments, since it is empty.

Life chart demo of combined and stacked view (version 1)

Both ms D and her partner feel that the combined life chart read-out is way too complicated. The stacked view is a little better, but is still very difficult to interpret. Ms D.’s partner recites a previous experience with a doctor that he visited, who presented him with a certain figure to make sense of his symptoms. The doctor was used to working with this type of figure, and for her it was very insightful. For him, he had no idea what he was looking at. All different kinds of info were portrayed in the figure. Ms D’s partner feels that for people to get acquainted with graphs, it would be best to start with a simple read-out of just one rating (e.g. mood) and that you could add another rating once people have gotten used to the first one. Ms D.’s partner has no idea how to read the mood bars, when they are in the 0 to -5 zone. They hang somewhere in the middle or bottom of the screen, which is confusing. Bars usually go up. They do feel that -5 to +5 reading for mood is informative, and that a reading outside certain parameters that lasts too long may alert them to a hypomanic or depressive episode. This fits ms D’s partner idea of a balance getting out of sink and stuck in one place.Minutes Needs assessment interview Client 4 AN0907 dd. 19112013

*Subject is a 67-year old male, first diagnosed with bipolar disorder in his early fourties.*

1. **Introduction**

Subject is 67 years old. He is gay and has been with the same partner for over 40 years. They are married but have been living separately for several years. According to mr A this has only improved their relationship. He can recommend it to anyone who is married. He used to have a shop in men’s clothing in a prestigious part of Amsterdam. He no longer works there, his partner still owns and runs the store. He has had several manic episodes but has been stable now for quite some time. He has summoned a court order which states that his husband and psychiatrist both have the power of attorney to have him committed (even against his will) when they feel that he is manic and needs inpatient treatment.

 Mr. A. is fine with taking his partner to an appointment, but he wants do that on a separate occasion (planned 10 dec), since his partner is very busy at the store.

**Demo 1.**

Contacts- Can you find Mary Smith and start a call with her?

Contact style 1. Mr. A. has no trouble finding Mary Smith, he owns an ipad and a smartphone and is used to touching the screen in order to initiate an action. He does have some trouble initially to find the start call button. The start call button is at the right top corner of the screen. Mr A is screening the lower part of the screen that has multiple tabs for the different parts of the ecare@home system. When asked if he feels the button would be easier to spot in another area of the screen, he suggests that the button be placed within the contact overview, for example right underneath the picture of Mary Smith.

When asked to do the same demo in style 2, mr A does not seem to spot the difference at first. When asked to take a closer look and showing him both styles again, mr A responds that he prefers the second style, where the contacts are depicted as flat cards, rather than a button style.

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

Mr A initially wants to create a note in the calendar on October the 25th, he does not seem to notice the title of the month. When asked whether it would help if the name of the month was made out in a different colour or font size, he states that this is just a matter of getting to know the system. When pointed towards the fact that this is the month October, he has no trouble swiping the screen to the next month, and the next. He comments that the does not like the Plus signs depicted on each day of the month. He states that it looks too much like a calculator and it is superfluous. When presented with the second style of the calendar, which depicts the calendar as a flat screen, with no plus signs on the different dates, he responds that this is much better.

Life chart demo of combined and stacked view (version 1)

Mr A feels that the numbers in the chart should be more clear, they should pop out more. He does not like the fact that his mood can fluctuate between -5 and +5, that does not work for him. He would much rather rate his mood from 0 to 10. When prompted by the interviewer that this way, it would be impossible to ascribe a number to a manic mood, he first states that he probably would not label his mood as manic anyway, he would just feel great. He continues to say that perhaps there should be two mood ratings; one for depression (0-10) and one for an elevated mood (0-10). Mr A states that it should be more clear in the output whether something is off track; there should be a line or something that would mark whether a certain rating is ‘deviant’ or within a normal range. With regard to his meds, he would like to be able to register at what time he takes his meds, because in his case this tends to vary (because he forgets to take it at a particular time). He prefers the line graph (for activity) to the bar chart in the other measures.

The combined view is difficult to interpret and is not very intuitive to mr A. He does not see at first that there is an overlay of different measurements, and he finds this confusing. He prefers the stacked view.

Minutes Needs assessment interview Client X dd. …17092013

*Subject is a 66-year old female, first diagnosed with recurrent depression at age 46.*

**Intro:** mrs K. used to be a high school teacher. She is married and has three children (two daughters and a son). She is very fond of her family. Her children are all out on their own now, she lives with her husband, who takes good care of her. She works as a volunteer at a gardening center.

Mrs K. has no idea what set off her depressive episodes. She did suffer a traumatic experience, but she is not sure whether this triggered her first depression. About a year after this experience she was first hospitalized at the inpatient clinic at Ingeest with a severe depressive episode. After that she was ok for 5 years, but then she experienced another depressive episode. The second episode was more severe than the first and did not respond to antidepressants. She received Electro Convulsive Therapy (ECT), which was quite scary for her at first, but it did help her recover. A disadvantage of this kind of therapy is the memory loss. She has gaps in her autobiographical memory. For example, she can’t remember where she went during her holidays a few years ago. Sometimes the memories come back when she sees pictures (reminders),but this isn’t always the case. She knows that people who are severely depressed don’t always remember things that happened during their depressive episode. That can also be a reason for her memory loss. Mrs. K. had a lot of relapses and for every episode, she received ECT and she recovered quite quickly. Her last depressive episode was in April, since then she’s been feeling better.

Partner assessment

When asked about the life chart and the potential role of her husband in sharing info regarding her mood/signals for relapse, both state that for now, they are both in a place where they do not wish to be reminded of her depressive episodes too much. She has been stable since last April, without further ECT treatment. She only sees a clinician every 3 months at this point. In general, she is very capable of alerting her clinician herself in due time when there are signals for the onset of another depressive episode. He does not need to alert her that she is getting off track. She could see herself using video calling to contact her clinician in order to minimize reminders to her illness, but other than that neither her husband or herself feel the need to keep track of her mood or activity levels. In other stages of her illness, he would have had no problem with this.

Contacts- Can you find Mary Smith and start a call with her?

Contacts style 2 is presented first. Even though neither mrs K. nor her husband are used to touch screens, tablets or smart phones, she has no trouble finding Mary Smith by swiping the screen. She also immediately tries to push the contact to get a connection. Afterwards though, she is unable to find the start call button. She tries to push the telephone number. Her husband points out the start call button. Mrs K prefers contacts style 2 (but only a little) to contacts style 1, since it is more peaceful to look at.

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

Calendar 1 is presented first. Mrs. K. has no trouble finding December, but the buttons with the arrows do not respond easily to her touch. Her husband suggests she could perhaps also swipe, and this is a lot easier. She can easily find and push the 25th, however, the save entry button for the appointment does not immediately ring a bell. Mrs K. wonders why there are plus signs in the calendar. This does not sugges to her that she might add something. She prefers calendar style 2.

Life chart demo of combined and stacked view (version 1)

Both mrs K and her husband stare at the combined screen and at first seem a bit at a loss as to what they are looking at. They both state that they prefer lines and that the bars are more difficult to interpret. They have questions regarding why the line for mood seems to have a vertical entry at one point (at the same day (Friday) it runs from -3 to +2). They also question whether a -5 to +5 mood rating is also valid for people who have no manic or hypomanic episodes. For activity levels, they do feel that a -5 to +5 rating would be informative; you can be too active or too passive. They prefer the combined view to the stacked view, but the combined view should merely hold 2 to 3 lines at the max, without the shaded bars or lines of other ratings in the background, as this is only confusing and does not add insight.

Minutes Needs assessment interview Client X 19092013

*Subject is an 81-year old woman, diagnosed with recurrent depression.*

**Intro:** In 1992 ms. B. experienced a severe depression and was hospitalized for a year. She felt the therapy she received was not helpful. After hospitalization she felt better for a while but she relapsed. Now she is been in treatment at GGZinGeest for a long time. She can’t really remember when this started. She lives together with a female friend, who is present for the demos. They have known each other for 40 years. We visit the client at her home because she’s not very mobile. She doesn’t really know what has triggered or caused her depression, maybe the fact that she does not have a partner makes her feel lonely sometimes. Ms B. has a laptop, her brother has set this up for her. She uses it for e-mail mostly. She does not own a smartphone or tablet and has no experience with touchscreens.

**Friend/housemate**

ms. B.’s housemate (ms C) and lifelong friend joins us in the assessment, which takes place at her home, since ms. B. is not very mobile. She is very involved in keeping tabs on ms B’s health. She used to be a psychotherapist. She has joined ms B. to visits at the clinic, and she always knows when ms B.’s getting off track. They both admit that ms C knows when ms B’s getting depressed before she does. Ms B can deny it at first sometimes, because she does not want to be told by ms C. how she is doing. Ms C. will never push her to accept her view, she has learned that this does not work and is unpleasant for both of them. Eventually, ms B. will come around and say that she is right.

Ms C owns a tablet, but both of them feel that all the technological developments are a bit silly. People do not know how to relate to each other anymore, in a direct fashion. Both of them also feel that it is a shame that it is so difficult to organize things, without using the internet. Everything is directed at people browsing the internet, for bank affairs, train times, everything. They do admit that the fact that they have difficulty in this area, sometimes means that they are a bit closed off from the world. Perhaps being able to video call someone, or being able to play games at a distance, would promote contact. Ms C.’s sister is terminally ill. She has tried to set up a video call with her, but her sister is too tired to set it up, it’s just another thing that is too much for her too cope with right now. Ms. B. and ms C. have lost a lot of people close to them, and often feel a bit lonely. People you can really relate to are scarce.

At first, the demo does not work and I need to call in to find out why I am unable to log on to the tablet. This takes up quite some time (about fifteen minutes). I feel a bit uncomfortable about the delay but when I turn to see how ms B and ms C are responding, they have both just taken up a book to read and do not seem bothered in the slightest. (the benefits of not being in a hurry anymore ☺)

**Demo 1.**

Contacts- Can you find Mary Smith and start a call with her?

Contact style 1. Ms. B. has no idea where to start. She looks at the contacts and can’t find Mary Smith; ‘she’s not there’. When I explain to her that there are more contacts at the bottom that are not visible, she tries pressing the screen. When I demonstrate to her how she can swipe, she eventually tries this and is able to find Mary Smith. When asked if she could start a call with her, she is at a loss. She has no idea that the contacts can be pushed. When I demonstrate this and ask her to do the same, for some reason she does not press the button so that it responds (she moves her finger too slow, presses down too firmly or too long and she holds her finger at an angle in stead of straight down) and she is unable to initiate a response in this manner. This remains a problem during the entire demo. Even after some training and rehearsal, she only succeeds in pushing a button about one time out of ten. When asked to initiate a call, ms. B. can’t find the start call button anywhere. She tries pushing the buttons at the lower end of the screen, and to push the entire contact card of Mary Smith.

When presented with the second contact style, mss. B. does not see a difference. She thinks the people are different in the second version. Even when confronted with the two styles right after each other, she has no idea what she should be seeing. When I clearly point out the difference, she acknowledges that there is a difference. She prefers contact style 2 (flat cards in stead of 3d buttons).

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

Ms. B. first states that there is only a calendar for October. When I explain to her that the buttons in the top right can be pushed to depict the next month, she tries but again has a lot of trouble getting the buttons to respond. I explain to her that she can also swipe the screen from right to left (she has the inclination to choose the other direction). This is considerably easier for her. When she looks for the 25th of December, she thinks it is in the left top corner (which in fact is November, depicted in a lighter colour). Even when I explain that this is the previous month, she has a lot of trouble finding the 25th. It seems that ms B has trouble with the whole concept of this type of calendar. She has no idea how to create a note. She comments that the dates on the calendar are too small to write anything on. When I explain and show that she can push the dates as if they were buttons, she is surprised.

When I show her the second style for the calendar, she does notice a difference but does not know what it is. When Ishow her both styles right after each other and point out the plus signs in the first style, she comments that she prefers the second style, because the numbers are clearer. The plus sign does not help her understand that she can enter data or that she can push the date.

Life chart demo of combined and stacked view (version 1)

Ms. B. does not seem to be able to read the graph (combined view) at all. She needs quite a bit of explanation regarding the whole idea of assessments and ascribing a number to her mood and sleep. She states that she would find this graph very difficult to understand and that she would probably forget how it works every time. Her friend who is present and is a bit more computer smart also finds the combined view difficult to read. The depiction in shades in the background of the ratings that are not selected does not seem to be intuitive, she has no idea what she is looking at. The stacked view is easier. However, when she tries to scroll down, the screen has a tendency to go from right to left as well (into depicting another week). This also happens when I swipe the screen down. Ms B’s friend prefers a line graph. Ms. B. prefers the bars.3) Conclusion: summary and usability recommendations

Contacts- Can you find Mary Smith and start a call with her?

* In general, people interviewed seem to prefer contacts style 2 to contacts style 1. contacts do not need to look like a button to remind people that they can push them on the screen. The white plain view is to most people easier on the eyes.
* Most people have trouble finding Mary Smith at first. Some cues that you can swipe the screen (such as a sliding bar that indicates top to bottom motion) would help.
* Everyone interviewed has trouble finding the start call button. The call could be initiated by pushing the telephone number, or perhaps by several options (pushing the photo, or a start call button right underneath the photo or pushing the phone number for example).
* Perhaps you would also like a choice on whether you want to start a video call, or send a message to that person, or invite them to play a game?

Calendar- Can you find December the 25th and create a note in your calendar named “Christmas”?

* In general, people interviewed prefer calendar style 2 to calendar style 1. The plus signs do not provide a cue that you can add something to the calendar. The view is too crowded.
* People who are not used to swiping have trouble with the arrows; they sometimes do not respond immediately
* Swiping seems to be easier for most; but perhaps there could be a swiping cue here as well (such as a slide bar).
* Save entry is computer language and should be changed to fill in appointment or save appointment, or something.

Life chart

* The view of the life chart should be brought back to max. two, perhaps three assessments depicted at the same time in the combined view.
* Mood, sleep and activity levels are perceived as the most important assessments by both clients and clinicians. Other assessments could be added if needed (e.g. alcohol) but these should not be made available for everyone. Most people have no problems with alcohol.
* Meds should be left out of the life chart, a med reminder should be sufficient. Notes can be made with regard to skipping medication. Lithium levels are only assessed once in a while and are difficult to integrate in this view.
* Default should be set to a line rather than a bar. Bars for negative mood ratings (for example -4) are difficult to interpret.
* The stacked view is simpler in the present version, but provides less insight than the combined view. However, for the combined view to provide insight, it should be brought back to just two or three lines being visible at the same time.
* Other assessments that are not selected should not be depicted in lighter colours, but should simply be switched on or off.
* People do not want to make all sorts of choices with regard to the general look of the life chart. The current version simply has too many lay-out options for the relatively inexperienced older user. (shading + or -, line or bar, etc.).
* Switching tabs (e.g. mood to sleep) should possibly provide a default setting of an overlay of the views, rather than switch completely to the next assessment.
* Setting a ‘green’ area for mood (where someone is within certain parameters) is not included in the present version and perhaps it should not be. It might be perceived as belittling. People can still have really good days (where their mood is up to 5) without it meaning that this marks the onset of a manic episode. Same goes for really bad days. Mood ratings that stay out of certain parameters for a longer period of time are probably more of a signal that something may be ‘off’.
* Perhaps mood ratings should be configurable to 0 to 10 rating for people with a unipolar mood disorder (only depressive episodes, no manic or hypomanic episodes).
* Mood ratings can vary on one day, perhaps there should be an option for a morning and afternoon or evening rating. However, most people will probably not rate their mood more than once daily (and for some even that is too much to ask).
* (not essential but a suggestion): Perhaps the notes that can be added could somehow be short and be presented as part of the combined view; for example if a mood rating drops suddenly, the user could add: ‘had a row with partner’ and that would appear within the graph underneath the drop. Or: ‘started mindfulness class’ at a certain date. Leave this out if it is difficult to configure, the notes already appear as part of the graph view but for now you can’t really see the exact date of entry within the graph.

General

* Buttons sometimes do not respond, should perhaps be more sensitive to touch.

Summary and recommendations based on feedback client usability assessments (see also powerpoint doc dated 10 april with notes)

(10th of April 2014).

1. Wellness intro; your measures

Overview could be simplified by sticking to the upper bar displaying the current ratings and adding an alert underneath if appropriate

1. Log a reading-mood:

Labels: zeer somber/lusteloos-neutraal-zeer opgewekt.

Colour icons: could these be changed to a more neutral colour rather than black?

+ and – signs as an extra way of moving the bar in the middle could be left out, may be confusing or redundant.

Slider button on the Likert scale could pop out more. Perhaps vertical line down the middle could be more prominent.

1. Edit and add old ratings (for both mood, activity and sleep): do not give people the option to edit; this may negatively affect the reliability, people may be prone to change ratings retrospectively based on their current mood. Do give people a limited ability to add previous missed ratings; max 5 days, with a simple back or previous day button. A calendar is unnecessarily detailed and is less user-friendly.
2. Notes in the graph: it should be clear how to select the option to view notes within the graph. Clearer ways to select a specific note; maybe by adding the same icon or asterisk to the graph and the note, and by making the selected paper note pop out more (colour)?
3. The upper bar displaying all kinds of options in the graph is not clear for users. Why would I need settings or reminders whilst looking at my chart. Note; clients do not set alerts for themselves, this is something they will do in consort with their clinician!
4. Log a reading-activity: no comments, enthusiastic about the simplicity of the overall lay out for readings. Other comments are similar to comments for mood ratings (such as the ability to edit and the + and –signs.
5. Log a reading; sleep. This is the trickiest measure. The bars are difficult to read, especially in consort with other measures, but even on their own. Jeroen and I suggest a simple bar with the same poles as mood and activity. The question could be: How long did you sleep last night, where 0 (the middle) would be; enough (appr. 8 hours), -5 would be (hardly) any sleep at all (0 hours) and +5 would be 16 hours or more. You could display an icon with an hourglass that is empty to full at both ends of the pole. This should be a separate rating, with a separate tab within the mood chart. Same comments on editing or adding previous ratings and plus and minus signs.
6. General; log a reading. It is a bit unclear at this point how you get from logging one measure to the next. Do I need to select every individual measure before I can use it? I would prefer as a user that the 4 screens would automatically pop up sequentially after I have filled in the first rating (log a mood).
7. Life chart; since we have moved away from the concept and purpose of the life chart we need to change the title; to ‘mijn grafieken’ for example? (my charts). Screenshots looks fine, simple (except when it comes to sleep; see comments above). Whereas clinicians may like a few (not too many) lay out options, clients prefer a set view; with a preference for lines (easier to read, especially as a continuing measure).
8. Alerts; or signals? To go for a more neutral word. These are fine this way, perhaps the colour could be a little less ‘fire engine red’? alerts or signals should stick to reference to the signal plan. This does place a responsibility on the clinician to make sure that the signal plan is detailed enough and up to date, but this is an added bonus of the trial.

Some clients may like the idea of their clinician intervening immediately if they have had a couple of nights of not sleeping, but this does not fit the purposes of self-management and is not the clinician’s view of what is best for the patient. It will increase (unnecessary) dependence on care.

1. Video calling. Looks fine and simple to use. People grasp most of the controls, but specific phrases such as withhold audio should perhaps be made more concrete for older adults to grasp. You may even wonder why you would want to give people the option to mute themselves when on a call? Use back camera; similar; more concrete phrasing could be something like: turn the camera around.
2. Instant messaging. Patients vary with regard to whether or not they will be prone to use this. It will also be an assessment in itself to see if an older adult can handle a keyboard on a tablet. To restrain the length of the messages to Ingeest, we may want to use a maximum number of words or letters.
3. Crisis. Instead of a crisis button, it should state an Ingeest button. This should simply state the phone number and address of our facility and perhaps a reference to the ‘doktersdienst’(GP) or the crisis service if they carry an alarm card for crises in out of office hours.
4. Library. No comments, this is fine. Except for the folder named recommended reading; the title should read something pertaining to activities (in Dutch: activiteiten or dagbesteding) and maybe a line of text to explain what the icons refer to (community centers; ‘buurthuis’, volunteer work; ‘vrijwilligerswerk’, courses: ‘cursussen’ etc.). Please note: I think a small mistake has been made in the screenshot for recommended reading; on the bottom of the screen it seems that this is part of web, I think it should be part of wellness? (not important but on a different note, I was also wondering if the library should be part of wellness. Wellness is getting quite crowded☺).
5. Lithium. Clinicians are probably more enthusiastic about sharing blood levels with the patient than patients. Especially if their levels are stable.
6. Language. We need to start translating, participants respond to the fact that the screenshots are still in English.