

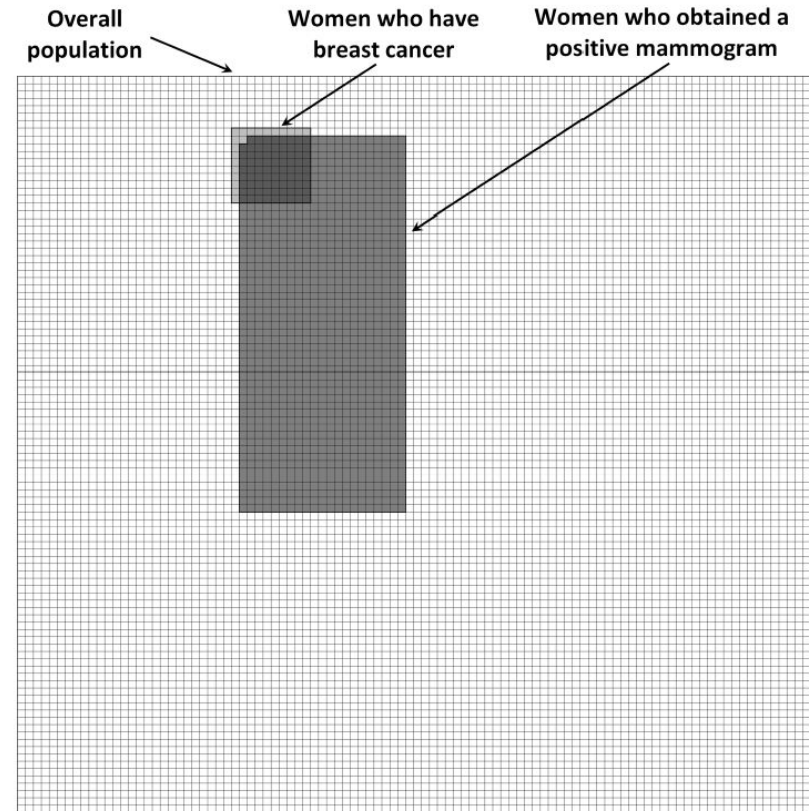
Testing Design Solutions in Healthcare

ID Faculty Research: Patient Communication

Visual aids improve diagnostic conclusions when displaying numerical information

Method. Study included 108 patients who made diagnostic inferences about three medical tests. Half received the information in numbers without a visual aid, while the other half received numbers along with a grid representing the numerical information.

Results. Visual aids increase the ability of less numerate people to recognize part-to-whole relations more easily. They also improve risk comprehension by increasing the likelihood that less numerate people deliberate on the available risk information.



QUESTIONS

Is there any important statistical/numerical information that needs to be supported visually? For example: any or the severity of the risks associated with the treatment(s).

Is a comic novel style appropriate for representing such information?

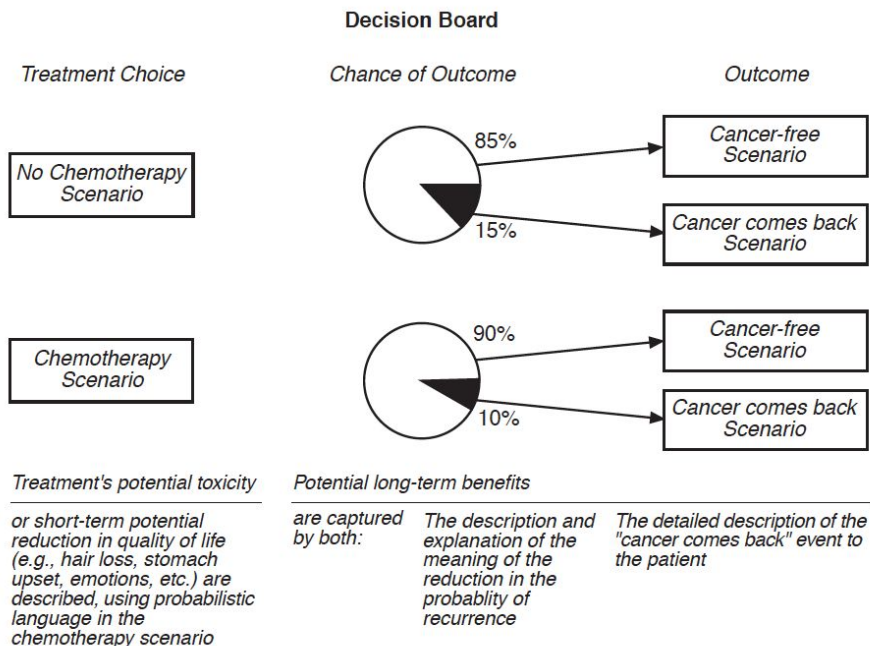
SUGGESTION

Perhaps numerical information can have it's own separate section or appear marginally.

Lessons learned through the development and use of the Decision Board (an interactive decision aid administered by the clinician during a medical consultation)

Method. The instrument was evaluated by a group of 30 women with early breast cancer. The Board was empty at the onset of the interview. The patient and clinician read each information card and attached it to the Board with velcro. At the end, the patient was faced with an overall visual representation of her two options (chemotherapy or no chemotherapy). Asking questions was encouraged throughout the process. Patient was given a take-home version of the Board following the presentation.

Results. 29 reported that the instrument was easy to understand, and 26 reported that it helped with their decision. Further studies have also shown the instrument to improve patient understanding and facilitate the shared decision-making process.



QUESTIONS

Can our communication piece be personalized to each patient?

SUGGESTION

We should identify if there are instances or steps in the treatment process that might vary vastly from patient to patient. For example: patient needing a head-mask vs. a patient being placed in a body-mold.

Should we develop different versions of our communication piece for that reason -or- perhaps those customizable pages could be interchangeable (swapped in and out)?

Usability of access structures in a health education brochure based on cognitive-ergonomics (a field in psychology that studies people's interactions with their informational environment)

Method. 100 participants from the general Dutch population (who had responded to leaflets found at their supermarket) were videotaped while looking up search items in 1 of 4 brochures. Participants were also asked to say what they were doing... This was meant as a verbal back-up for the analysis of their behaviour on the videotapes.

All brochures were A4 size, 32 pages long, of which 25 contained textual contents and pictures in different sizes, in colour and black-and-white.

Results. The presence of coloured tabs and pictorials contributed to a more usable brochure design (although errors were still made).

(b)		Vet test
WEGWIJZER VOOR DEZE GIDS		-sauzen -tussen-
Het eerste gedeelte van deze gids gaat over vet. U kunt eerst nagaan hoe het met uw eigen eetgewoonten gesteld is door de vettest in te vullen. Daarna kunt u, afhankelijk van uw score, verder in deze gids kijken. Wanneer bijvoorbeeld uit de test blijkt dat u te veel vet eet, kunt u het gedeelte lezen waarin wordt uitgelegd waarom het belangrijk is om niet te veel vet te eten. Voor de lezers die vervolgens echt willen proberen om minder vet te gaan eten, staan er in deze gids een aantal praktische tips die daarbij helpen. Ook wordt uitgelegd hoe u in de toekomst uw gezonde eetgewoonten kunt blijven volhouden. Dit laatste is wellicht ook interessant voor mensen die nu al gezond eten.		Stap voor stap minder
Vettest	bladzijde 6	Melk en - producten
Waarom minder vet?	bladzijde 10	Waarom minder vet?
Stap voor stap minder vet	bladzijde 13	Verken- nis test
Het tweede gedeelte van de gids gaat over groente en fruit. Daar kunt u beginnen met het invullen van de groente & fruittest. Vervolgens kunt u, afhankelijk van uw score, verder lezen. Bijvoorbeeld waarom het belangrijk is voldoende groente en fruit te eten, en hoe u dat met behulp van een aantal praktische tips op een eenvoudige manier kunt bereiken. Ook kunt u het gedeelte lezen waarin staat uitgelegd hoe u in de toekomst uw gezonde eetgewoonten kunt blijven volhouden.		Groente&Fru test
Groente & Fruittest	bladzijde 18	Waarom meer g & f?
Waarom meer groente en fruit?	bladzijde 20	Stap voor stap meer
Stap voor stap meer groente	bladzijde 22	Groente-tips Fruit-tips
Stap voor stap meer fruit	bladzijde 23	

QUESTIONS

How lengthy should our communication piece be?

Should we prototype several versions to test?

Should we videotape our participants during the testing phase?

Evaluation of a brochure based on Knowles' Adult Learning Theory

Aim. To improve communication with family members during patient's transfer from ICU (intensive care unit).

Method. A brochure was developed grounded in Knowles' Adult Learning Theory which acted as the foundation for nurse–family member discussion before patient transfer.

During the period of 8-weeks when the brochure was used, 82 family members were surveyed (using a questionnaire) on their satisfaction with the transfer process.

Results. The intervention group of family members ($n = 82$) experienced significantly higher levels of satisfaction with the information given to them before transfer from ICU than did the control group ($n = 80$), which dealt the previous ad hoc transfer methods.

95% of nurses ($n = 33$) indicated that it provided a useful framework for them to use and recommended its introduction for all patient transfers from ICU.

Statement acknowledging the audience/user



Relatives provide vital support to critically ill patients. We see your role in their recovery as important. Your relative's illness will extend beyond this time in Intensive Care. The next move you and your relative will make is to a general ward. This brochure will help you understand the transfer from Intensive Care to the general ward.

A nurse will speak with you about this move to the general ward. This will provide an opportunity for you to discuss any issues you have.

Patient's Name:

1 Transfer Plans:

- Your relative's condition now allows for transfer to a general ward. Do you know the plan of care for your relative?
- We anticipate your relative will be discharged to the ward aroundam/pm on However, this may change unexpectedly.
- Some treatments for your relative in the general ward may change.
- Everyone is an individual. Your relative's length of stay in hospital is also individual. Ask the nurse or doctor in the ward when your relative can expect to be discharged.

2 Ward Information:

- Your relative will be transferred to Ward..... This ward specialises in caring for patients with conditions similar to your relative's condition.
- For A and B wards, use the BLUE lifts but for C, D and E wards use the ORANGE lifts to get to your ward.
- To contact your relative or the ward, please ring 3240 2111
- The general visiting hours are:
Weekdays: 12md - 2pm ; 4pm - 8pm.
Weekends & public holidays: 12md - 8pm.

Fields for including personalized content

3 Staff Information:

- The staff in the general ward may be new to you. The following information will be of use to you.
- The doctor's name is Dr.
- The name of the nurse in charge of the ward is
- In the general ward, one nurse will be caring for a number of patients. This tells you that your relative's needs are changing.
- If your relative continues to require a physiotherapist, occupational therapist or speech pathologist, there is one for your ward.

4 Expectations in the general ward:

- There are a range of issues relating to the care of your relative in the general ward. The nurse will speak with you about these.
- Daily ward rounds occur in the general ward - ask your registered nurse in the general ward when this occurs. You may wish to speak with the team caring for your relative.
- Different equipment may be used in the ward, for example - continuous monitoring equipment may no longer be needed.

5 Support for Relatives:

- If you are worried about something, contact the nurse caring for your relative first. They will help you.
- The ward's social worker can be contacted for you by the nurse caring for your relative.
- The chaplain can be contacted the same way.

SUGGESTION

*Get familiar with the **Knowles' theory** and keep referring to its principles while developing and evaluating our communication piece.*

Principles that are apply to adult learning:

1. Adults need to be involved in the planning and evaluation of their instruction
2. Experience (including mistakes) provides the basis for the learning activities
3. Adults are most interested in learning subjects that have immediate relevance to their job/personal life
4. Adult learning is problem-centered rather than content-oriented

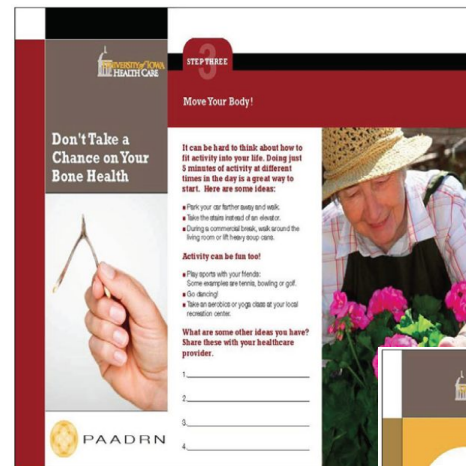
Understanding information preferences for developing patient education brochure

Aim. To develop an educational brochure on bone health for adults aged 50 years and older using mixed-method, semistructured interviews.

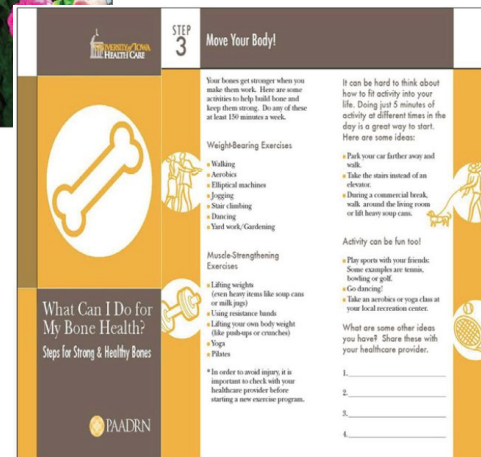
Methods. Phase 1) developed written content and designed 2 graphic-rich brochures, Brochure A (photographs) and Brochure B (illustrations).

Phase 2) interviewers presented the text-only document and both brochure designs to 53 participants. Interviewers used open- and closed-ended questions to elicit opinions regarding the brochures.

In Phase 3) using feedback from Phase 2, they revised the brochure and presented it to 11 other participants at a different site.



Brochure A



Brochure B

Understanding information preferences for developing patient education brochure

Results. Out of 64 enrolled participants (most who were women, white, and college-educated, with an average age of 66.1 years), participants were able to restate the basic content of the brochure and preferred Brochure A's use of photographs.

Example of a questionnaire

Items from the Semistructured Interview Guide

Questions used to assess brochure text

If you were going to tell a friend or family member about this brochure, what would you tell him/her that it said?
Do you think the brochure does a good job of talking about how to help your bones? Please explain your answer.
Before reading the brochure, did you think taking care of your bones was easy or hard? Please explain your response.
After reading the brochure, do you think taking care of your bones is easy or hard? Please explain your response.
Please indicate how much you agree with each of the following statements (1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree):
The title tells me what the brochure is about.
The brochure is hard to read.
I can understand all of the medical words.
The amount of information is about right.
My questions about osteoporosis are answered.
The brochure clearly explains where to find more information.
The tables are easy to understand (T-score table and Calcium/Vitamin D table).

Questions used to assess brochure design

Would you pick up either of these brochures if you saw them on a table in the waiting room of your doctor's office? If yes, which one (A or B) would you be most likely to pick up first? Please explain.
Which brochure (A or B) do you think is best for people like you? Why?
What pictures do you like? Why?
Are there any pictures you don't like? Why?
How do you feel about the colors used?
Do you think the print/style of letters is easy to read? If not, is it too small, not the right style, or both?
How well do the covers explain what the brochure is about? Excellent, very good, good, fair, or poor? Please explain.

SUGGESTIONS

This research includes references for how to test the readability of something:

- The Health Literacy Advisor software (Health Literacy Innovations LLC, Bethesda, MD)

<https://www.healthliteracyinnovations.com/products/hla>

<https://www.healthliteracyinnovations.com/trial/HLA.php> (2-day trial)

- The Suitability Assessment of Materials (SAM)

<https://www.fda.gov/downloads/advisorycommittees/committeesmeetingmaterials/riskcommunicationadvisorycommittee/ucm202836.pdf>

<http://aspiruslibrary.org/literacy/sam.pdf>