

## 2.2.6 Using Narratives

### *Introduction*

Given the objective of evidence-based health information, the question arises as to what role experience reports (narratives) from patients play as a component of evidence-based health information.

In this issue, narratives are defined as follows: Narratives are personal and individual experience reports on aspects of an illness that are embedded in the biographical and social background of a person. All aspects of an illness can be addressed. They often contain implicit or explicit descriptions of types of behavior, coping strategies or decision-making processes. Fictitious or authentic, written in the first or third person, they often follow an action, contain concrete examples, details and characters. They are seen as a component of health information (1-3).

Experience reports are widespread in journalism and are used increasingly in health information and to support decision-making (1, 4, 5). Narratives are an everyday form of communication and are therefore seen as being easier to understand and remember, and are more appealing than statistic information that is in the center of evidence-based information (6-8).

There is, however, the possibility that empirical reports may have undesired effects that are opposed to the aspirations of evidence-based health information. It is not clear what influence they have on decision-making processes.

One of the difficulties lies in the fact that the term „experience report“ is not defined exactly and that it includes a very heterogeneous group of sets of information, which have only one thing in common: they convey the perspectives of one single person. A narrative often describes how a (real or fictitious) person has coped with a challenge or has managed a certain situation.

Experience reports should serve various purposes, i.a.:

- They should invoke interest for a certain theme or subject.
- They should describe the emotions and social burdens associated with an illness so that the persons concerned can compare their own experiences with those of others and thus realize that they are not alone with their feelings.
- They should serve as “packaging” for imparting factual information and knowledge.
- They should impart opinions and be used objectively as part of campaigns for influencing risk perception and motivation.

These elements can be combined with one another in one single experience report. This can be explicit or implicit and be targeted and deliberate or random/accidental. In order to ensure that experience reports primarily provide access to how an illness is experienced and how the consequences are dealt with, it must be possible to edit them in such a way that they do not contradict statements of evidence and do not contain any explicit recommendations.


Certain types of experience reports are aimed at having a strong impact on users, they should appear “persuasive”. The persuasive effect of deliberately prepared experience reports is used intentionally in areas of prevention and health promotion, especially to reach special target groups or large populations in the sense of *Public Health* and to influence their behaviour (1, 3, 7, 9). In the field of social and cognitive psychology, the assumption that personally described experiences of ideas convince and influence behaviour is reputable and has been well researched (10).

However, it is possible that other types of experience reports may impede the various options for a decision being equally considered. On the basis of the open questions, the *International Patient Decision Aids Standards (IPDAS) Collaboration* has reached a consensus that narratives need not be included in high quality decision-making support (1, 11).

## Question

1. What effects do narratives in health information have when compared with factual information only?

## Recommendation

	<p><b>Recommendation</b></p> <p><b>“Narratives cannot be recommended.”</b></p> <p>Agreed: 8, Disagreed: 3, Abstentions: 3</p> <p><b>Quality of the evidence:</b> low quality</p>
<p><b>Comment on the recommendation:</b></p> <p>The recommendation refers to the comparison of narratives, which can be used as a supplement to factual information, with the factual information only.</p> <p>Due to the study situation, the heterogeneity of the narratives cannot be taken into consideration. It must be expected that O-tone narratives, which are also highly emotionally charged, will have a different effect than edited narratives, which contain, for example, experiences of illnesses without relation to therapies. Current literature cannot provide any categories for narratives, nor can components and their mechanisms be described.</p> <p>Overall, no effect could be seen for the cognitive outcomes. In one of four studies on the outcome <i>recalling information</i> and in one of three studies on the outcome <i>comprehensibility</i> positive effects were found for using narratives. Positive effects for using factual information alone could be seen in one of four studies on the outcome <i>information content</i>. In four studies on the outcome <i>knowledge</i> and in one study on the outcome <i>readability</i> no effects were shown. The results for the outcome <i>risk perception</i> (nine studies) were inconsistent.</p> <p>One study for each of the affective outcomes <i>credibility</i> and <i>attractiveness</i> could show a positive effect for the use of narratives. A second study on the outcome <i>credibility</i> showed no effect.</p> <p>In seven studies on the outcome <i>persuasiveness</i> it was shown that the narratives examined had had a persuasive effect.</p>	

## Summary of the findings

### Characteristics of the included studies

For this comparison 18 studies with a total of 10,226 participants of both sexes were included. The sample sizes were between 31 and 2,506 and the average age was between 20 and 72 years, depending on the target group. The studies were carried out in the USA (7, 12-22), the Netherlands (23), Australia (24), Great Britain (25), Italy (26) and Germany (27, 28). The included participants were students (14, 18, 20, 24, 25, 27), randomly chosen test persons (13, 20, 22, 28), patients of both sexes (16) and special target groups particularly for screening and prevention themes (7, 12, 15, 17, 19, 23, 26). The interventions consisted of videos, Internet sites or information brochures on screening, prevention or healthy living (7, 12, 14, 15, 19-21, 24), vaccinations (23, 26-28), therapy options (13, 22, 25) and generics (20). Two studies examined the adherence to therapy (16, 17) and one concerned the impact of safety warnings (18).

### Results for the relevant outcomes

No effect was found for the outcomes *knowledge* and *readability* (7, 16, 18, 19, 24). No clear effect pro or contra using narratives was shown for the outcomes *recall of information*, *risk perception*, *comprehensibility* and *information content* (7, 12, 14, 15, 17, 19-21, 23, 24, 26-28). For the outcomes *attractiveness* and *credibility*, a positive tendency was found for using narratives (15, 21, 26). For the outcome *persuasiveness* an effect was shown in all the included studies (13, 19, 20, 22, 25, 27, 28).

#### **Research need**

Currently, studies concerning the aspect *persuasiveness* are being carried out. This means that in the near future study findings may be available that could revoke this recommendation.

## Evidence table

**Table 22:** Evidence table „Narratives versus factual information only“

Certainty assessment						Summary of findings				
						No. of participants per group		Effect estimates		
Outcomes [No. of studies]	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Intervention	Control	Effects	Quality of evidence	Importance
<b>Narratives versus factual information only</b>										
<b>Knowledge [n=4]</b> Cody (24) Dillard (7) Mazor (16) Rook (19)	RCT	very serious (-2)	not serious	not serious	not serious	N= 268 + N=1600 (allocation on intervention and control group unclear)	N= 362	In four studies no effects (7, 16, 19, 24).	low	critical
<b>Recall of information [n=4]</b> Bollinger (12) Kreuter (15) McDonald (17) Rook (20)	RCT	very serious (-2)	not serious	not serious	not serious	N= 73 + N=35 (allocation on intervention and control group unclear)	N= 70	In three studies no effects (12, 17, 20), in one study effect for narratives (15).	low	critical
<b>Risk perception [n=9]</b> Betsch (27) Betsch (28) Cody (24) de Wit (23) Dillard (7) Greene (14) Kreuter (15) Prati (26) Ricketts (18)	RCT	very serious (-2)	not serious	serious (-1)	not serious	N= 73 + N=2626 (allocation on intervention and control group unclear)	N= 70	In six studies no effects (15, 18, 23, 24, 26, 27), in two studies effects for narratives (7, 28), in one study effect for statistics (14).	very low	critical

<b>Comprehensibility [n=3]</b> Greene (14) Prati (26) Slater (21)	RCT, one study with within-subject Design	very serious (-2)	not serious	not serious	not serious	N=50 + N=342 (allocation on intervention and control group unclear)	N=95	In two studies no effects (14, 21), in one study effect for narratives (26).	low	important but not critical
<b>Readability [1]</b> Ricketts (18)	RCT	very serious (-2)	not serious	serious, calculation of scores, no test persons (-1)	not serious	10 safety warnings each - narrative - specific example - warning only		In one study no effect (18).	very low	important but not critical
<b>Information content [n=4]</b> Greene (14) Kreuter (15) Rook (19) Rook (20)	RCT	very serious (-2)	not serious	not serious	not serious	N=388	N=434	In three studies no effects (15, 19, 20), in one study effect for statistics (14).	low	important but not critical
<b>Credibility [n=2]</b> Prati (26) Slater (21)	RCT one study with within-subject Design	very serious (-2)	not serious	not serious	not serious	N=342 (allocation on intervention and control group unclear)		In one study no effect (21), in one study effect for narratives (26).	low	limited importance
<b>Attractiveness [n=1]</b> Kreuter (15)	RCT	serious (-1)	Keine Inkonsistenz	Keine Indirektheit	Keine Impräzision	N=244	N=245	In one study effect for narratives (15).	moderate	limited importance

<b>Persuasiveness</b> <b>[n=7]</b> Betsch (27) Betsch (28) Fagerlin (13) Rook (19) Rook (20) Ubel (22) Winterbottom (25)	RCT	very serious (-2)	not serious	not serious	not serious	N=5343 (total)	In seven studies effects (narratives bias statistics only, pictograms and a proportional number of positive / negative narratives lower this influence) (13, 19, 20, 22, 25, 27, 28).	low	not defined
--	-----	-------------------	-------------	-------------	-------------	----------------	---	-----	-------------



## References

1. Khangura S, Bennett C, Stacey D, O'Connor AM. Personal stories in publicly available patient decision aids. *Patient Education & Counseling*. 2008;73(3):456-64.
2. Kreuter MW, Green MC, Cappella JN, Slater MD, Wise ME, Storey D, et al. Narrative communication in cancer prevention and control: a framework to guide research and application. *Annals of behavioral medicine : a publication of the Society of Behavioral Medicine*. 2007;33(3):221-35. Epub 2007/06/30.
3. Winterbottom A, Bekker HL, Conner M, Mooney A. Does narrative information bias individual's decision making? A systematic review. *Social Science & Medicine*. 2008;67(12):2079-88.
4. Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG). Allgemeine Methoden. Version 4.2. 2015; <https://www.iqwig.de/de/methoden/methodenpapier.3020.html>, Zugriff am 19.11.2015.
5. Shaffer VA, Zikmund-Fisher BJ. All stories are not alike: a purpose-, content-, and valence-based taxonomy of patient narratives in decision aids. *Medical decision making : an international journal of the Society for Medical Decision Making*. 2013;33(1):4-13. Epub 2012/10/16.
6. Bunge M, Muhlhauser I, Steckelberg A. What constitutes evidence-based patient information? Overview of discussed criteria. *Patient education and counseling*. 2010;78(3):316-28. Epub 2009/12/17.
7. Dillard AJ, Fagerlin A, Dal Cin S, Zikmund-Fisher BJ, Ubel PA. Narratives that address affective forecasting errors reduce perceived barriers to colorectal cancer screening. *Soc Sci Med*. 2010;71(1):45-52. Epub 2010/04/27.
8. Feldman-Stewart D, Brennenstuhl S, McLissac K, Austoker J, Charvet A, Hewitson P, et al. A systematic review of information in decision aids. *Health expectations : an international journal of public participation in health care and health policy*. 2007;10(1):46-61. Epub 2007/02/28.
9. Bandura A. Health promotion by social cognitive means. *Health education & behavior : the official publication of the Society for Public Health Education*. 2004;31(2):143-64. Epub 2004/04/20.

10. Enkin MW, Jadad AR. Using anecdotal information in evidence-based health care: heresy or necessity? *Annals of oncology : official journal of the European Society for Medical Oncology / ESMO*. 1998;9(9):963-6. Epub 1998/11/18.
11. Elwyn G, O'Connor A, Stacey D, Volk R, Edwards A, Coulter A, et al. Developing a quality criteria framework for patient decision aids: online international Delphi consensus process. *BMJ (Clinical research ed)*. 2006;333(7565):417. Epub 2006/08/16.
12. Bollinger S, Kreuter MW. Real-time moment-to-moment emotional responses to narrative and informational breast cancer videos in African American women. *Health education research*. 2012;27(3):537-43. Epub 2012/04/14.
13. Fagerlin A, Wang C, Ubel PA. Reducing the influence of anecdotal reasoning on people's health care decisions: is a picture worth a thousand statistics? *Medical decision making : an international journal of the Society for Medical Decision Making*. 2005;25(4):398-405. Epub 2005/08/03.
14. Greene K, Brinn LS. Messages influencing college women's tanning bed use: statistical versus narrative evidence format and a self-assessment to increase perceived susceptibility. *Journal of health communication*. 2003;8(5):443-61. Epub 2003/10/08.
15. Kreuter MW, Holmes K, Alcaraz K, Kalesan B, Rath S, Richert M, et al. Comparing narrative and informational videos to increase mammography in low-income African American women. *Patient education and counseling*. 2010;81 Suppl:S6-14. Epub 2010/11/13.
16. Mazor KM, Baril J, Dugan E, Spencer F, Burgwinkle P, Gurwitz JH. Patient education about anticoagulant medication: is narrative evidence or statistical evidence more effective? *Patient education and counseling*. 2007;69(1-3):145-57. Epub 2007/10/19.
17. McDonald DD, Goncalves PH, Almario VE, Krajewski AL, Cervera PL, Kaeser DM, et al. Assisting women to learn myocardial infarction symptoms. *Public Health Nurs*. 2006;23(3):216-23. Epub 2006/05/11.
18. Ricketts M, Shanteau J, McSpadden B, Fernandez-Medina KM. Using stories to battle unintentional injuries: narratives in safety and health communication. *Soc Sci Med*. 2010;70(9):1441-9. Epub 2010/02/24.
19. Rook KS. Encouraging preventive behavior for distant and proximal health threats: effects of vivid versus abstract information. *Journal of gerontology*. 1986;41(4):526-34. Epub 1986/07/01.

20. Rook KS. Effects of Case History versus Abstract Information on Health Attitudes and Behaviors<sup>1</sup>. *Journal of Applied Social Psychology*. 1987;17(6):533-53.
21. Slater MD, Buller DB, Waters E, Archibeque M, LeBlanc M. A test of conversational and testimonial messages versus didactic presentations of nutrition information. *Journal of Nutrition Education & Behavior*. 2003;35(5):255-9.
22. Ubel PA, Jepson C, Baron J. The inclusion of patient testimonials in decision aids: effects on treatment choices. *Medical decision making : an international journal of the Society for Medical Decision Making*. 2001;21(1):60-8. Epub 2001/02/24.
23. de Wit JBF, Das E, Vet R. What Works Best: Objective Statistics or a Personal Testimonial? An Assessment of the Persuasive Effects of Different Types of Message Evidence on Risk Perception. *Health Psychology*. 2008;27(1):110-5.
24. Cody R, Lee C. Behaviors, beliefs, and intentions in skin cancer prevention. *Journal of behavioral medicine*. 1990;13(4):373-89. Epub 1990/08/01.
25. Winterbottom AE, Bekker HL, Conner M, Mooney AF. Patient stories about their dialysis experience biases others' choices regardless of doctor's advice: an experimental study. *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association*. 2012;27(1):325-31. Epub 2011/06/07.
26. Prati G, Pietrantonio L, Zani B. Influenza Vaccination: The Persuasiveness of Messages Among People Aged 65 Years and Older. *Health Communication*. 2012;27(5):413-20.
27. Betsch C, Ulshofer C, Renkewitz F, Betsch T. The influence of narrative v. statistical information on perceiving vaccination risks. *Medical decision making : an international journal of the Society for Medical Decision Making*. 2011;31(5):742-53. Epub 2011/03/31.
28. Betsch C, Renkewitz F, Haase N. Effect of narrative reports about vaccine adverse events and bias-awareness disclaimers on vaccine decisions: a simulation of an online patient social network. *Medical decision making : an international journal of the Society for Medical Decision Making*. 2013;33(1):14-25. Epub 2012/08/10.