

# Evaluation of a video-based online intervention to enhance patients' treatment expectations for inpatient psychosomatic rehabilitation – results of a randomized controlled trial

Zwerenz, R., Schury, K., Becker, J., Gerzymisch, K., Schulz, D., Ferdinand, P.,  
Siepmann, M., Schmädeke, S., Beutel, M.E.

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# 0 | Outline

- 1. Theoretical background & concept**
- 2. Study design // -methods**
- 3. Results**
- 4. Summary // discussion**

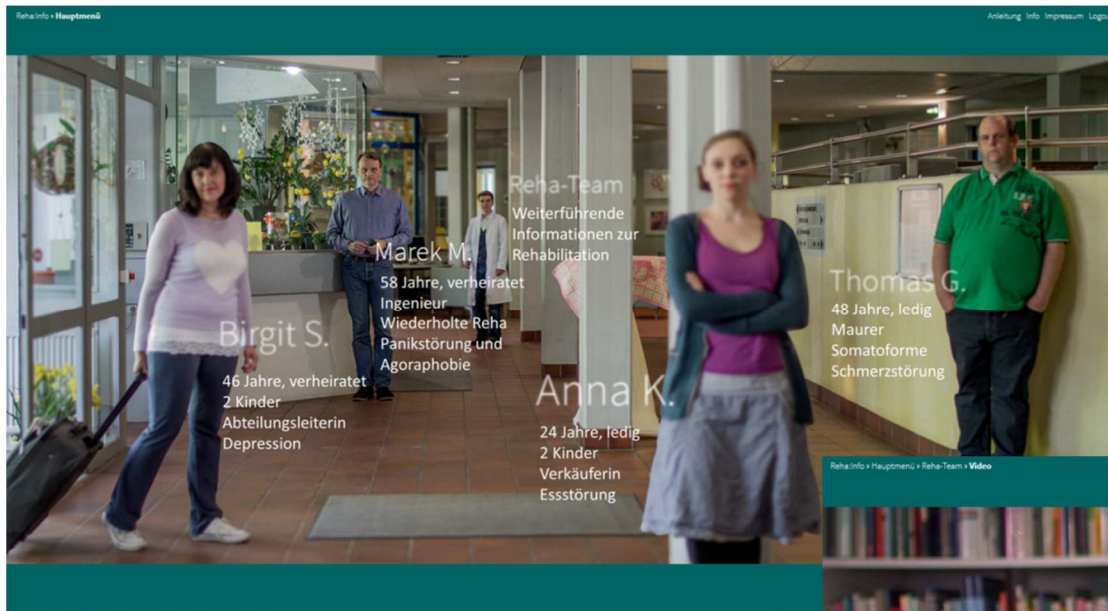
# 1 | Background

- Positive patients' treatment expectations essential for the outcome of psychotherapy (*Constantino 2012; Norcross, 2011; Smets 2008*)
- Risk-factors for poor participation / outcome of rehabilitation (*Lange et al. 2012*)
  - Insufficient information and preparation
  - Negative attitudes towards treatment
  - Lack of motivation
  - Social-medical problems
- Elaborated interventions like preliminary diagnostics are only successful to some extent.
- Experiences with video-based interventions for patients with chronic diseases (psycho-oncology; *Walker et al. 2005; Thomas et al. 2000*)
  - fear of treatment ↓; allocation satisfaction ↑
  - In particular, treatment descriptions from patients have proved to be effective.

# 1 | Background

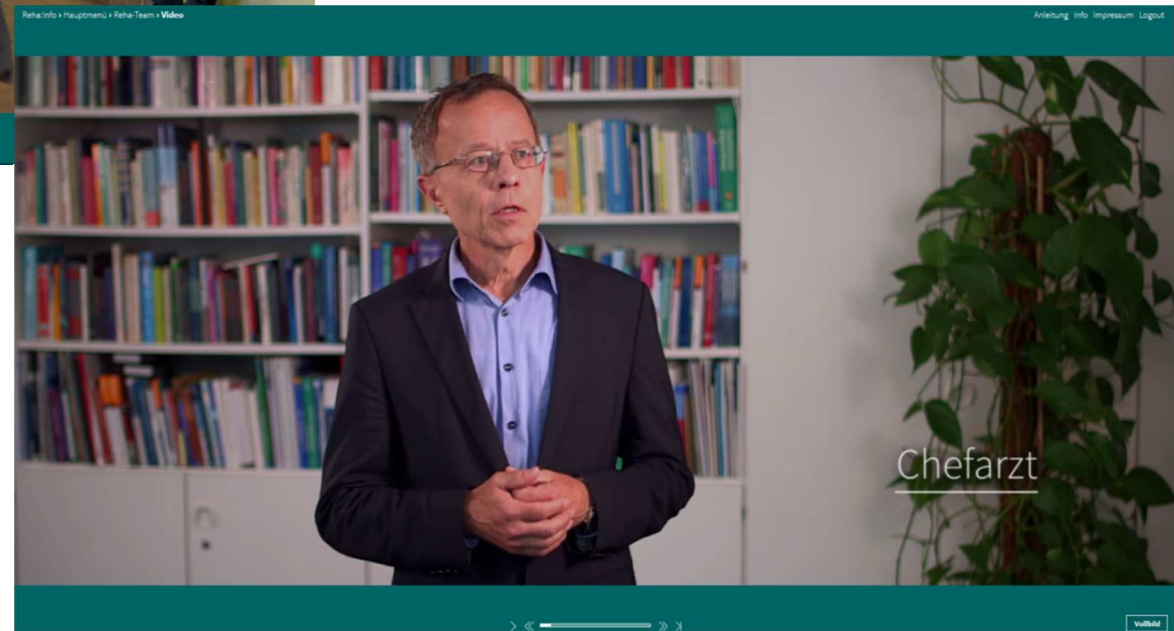
- **Assumption:** Conventional (text-based) information is perceived and processed insufficiently.
- **Aim:** Advantages of audio-visual media
  - The use of dynamic media is more effective in transferring declarative knowledge and problem-solving skills than static representations (*Höffler & Leutner, 2007*).
  - Enhance curiosity
  - Draw attention more precisely (*Walthouwer et al., 2015*)
  - Address emotions (*Walthouwer et al., 2015*)
- **Target group:** Future patients between allocation and beginning of inpatient psychosomatic rehabilitation.

# 1 | Virtual online-clinic 'Reha:Info'



## Four fictional patients' stories

## Experts' statements

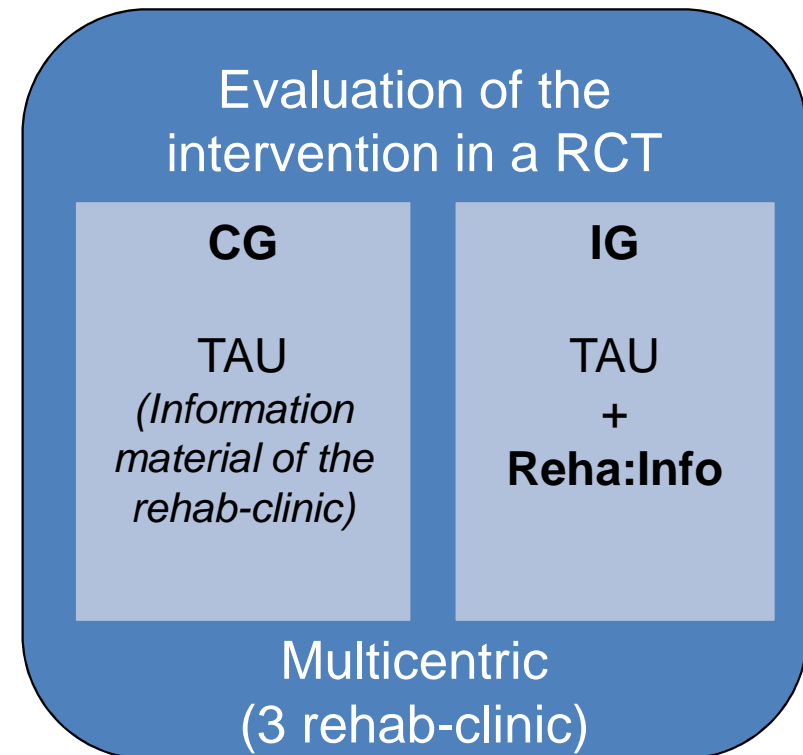


## 2 | Study

### Explorative part of the study



### Experimental part of the study



*Funded by the German Statutory Pension Insurance Scheme for 39 months (01/2014-03/2017)*

## 2 | Outcome criteria and study design

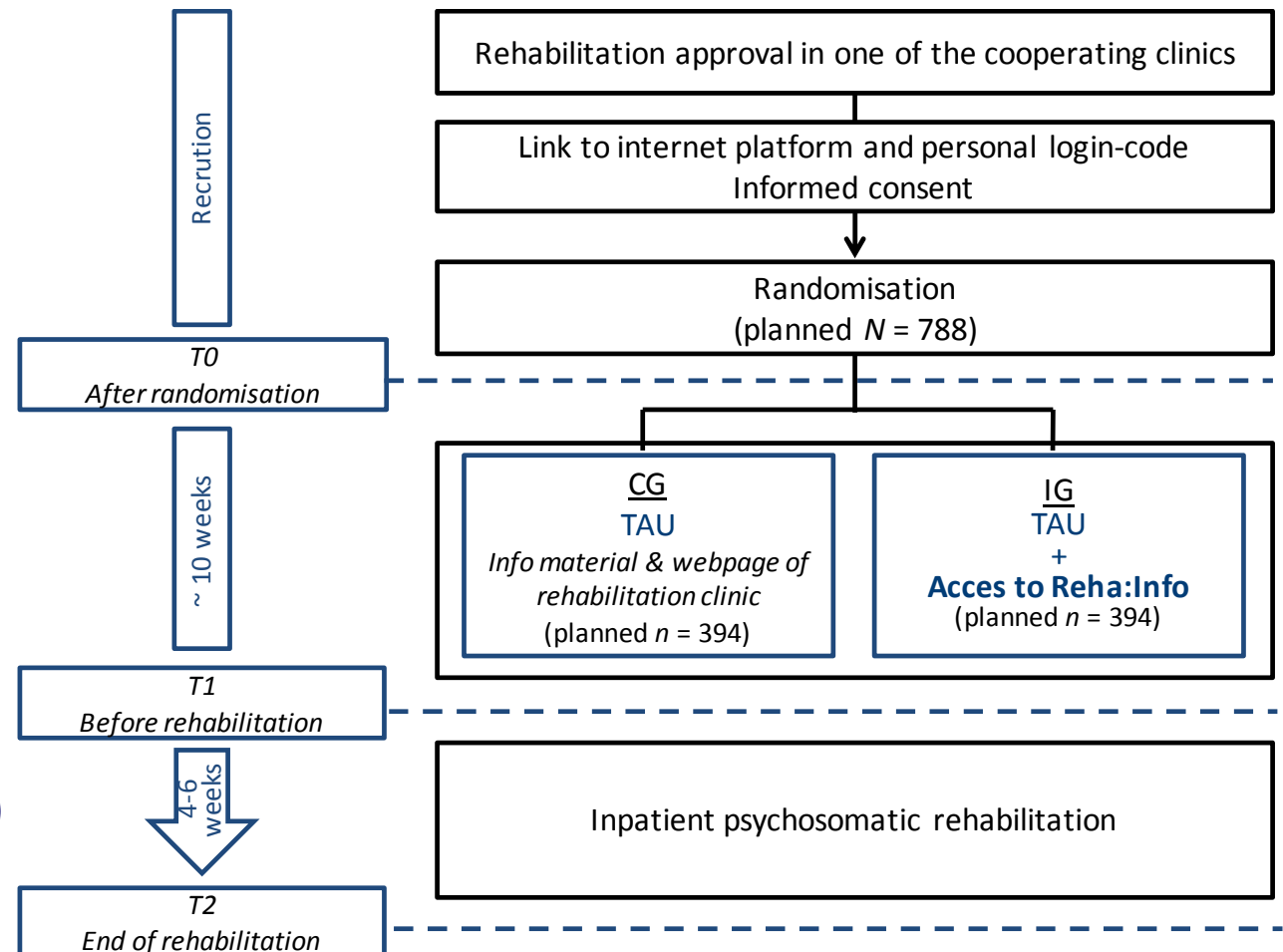
### Primary Outcome

- Treatment expectancy concerning inpatient rehabilitation (CEQ)

### Secondary Outcomes

- Treatment credibility concerning inpatient rehabilitation (CEQ)
- Work-related therapy motivation (FBTM)
- Treatment motivation (PAREMO)
- Treatment expectations (FREM-17)
- Satisfaction with inpatient rehabilitation

- ...



## 2 | Primary outcome

- Treatment Expectancy (*CEQ; Devilly & Borkovec, J. Behav. Ther. & Exp. Psychiat., 2000: 31, 73-86.*)

### Expectations concerning the results of inpatient rehabilitation

By the end of inpatient rehabilitation, how much improvement in your symptoms do you think will occur?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
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At this point, how much do you really *feel* that inpatient rehabilitation will help you to reduce your symptoms?

1 not at all	2	3	4	5 somewhat	6	7	8	9 very much
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By the end of the rehabilitation period, how much improvement in your symptoms do you really *feel* will occur?

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
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## 2 | Secondary outcome

- **Treatment Credibility** (CEQ; Devilly & Borkovec, *J. Behav. Ther. & Exp. Psychiat.*, 2000: 31, 73-86.)

### Confidence in the treatment

At this point, how logical does inpatient rehabilitation offered to you seem?

1 not at all logical	2	3	4	5 somewhat logical	6	7	8	9 very logical
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At this point, how successfully do you think inpatient rehabilitation will be in reducing your symptoms?

1 not at all useful	2	3	4	5 somewhat useful	6	7	8	9 very useful
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How confident would you be in recommending inpatient treatment to a friend who experiences similar problems?

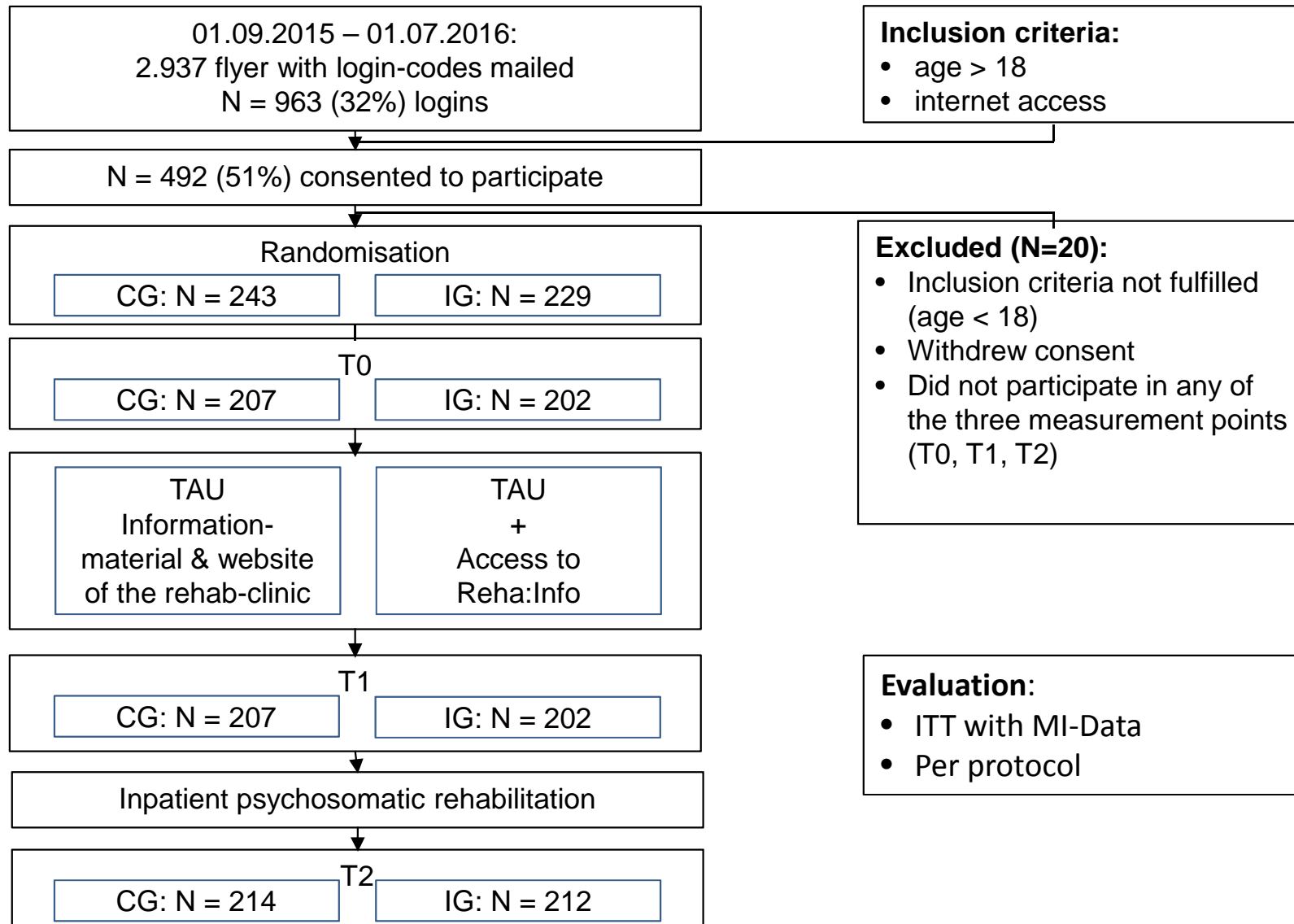
1 not at all confident	2	3	4	5 somewhat confident	6	7	8	9 very confident
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## 2 | Secondary outcome

- Work-related therapy motivation (*FBTM; Zwerenz et al., Rehabilitation, 2005: 44, 14-23.*)

<i>I agree to this statement.... (exemplary items)</i>	not at all	little	some- what	quite	very much
In the clinic I hope that I will find ways to cope with my work-related problems.					✘
Concerning my retirement I hope for big relief.		✘			
I do not think that psychotherapy can help me in coping with my work-related problems.		✘			
It have made every effort to get into this clinic.				✘	

## 2 | Recruitment and patient flow



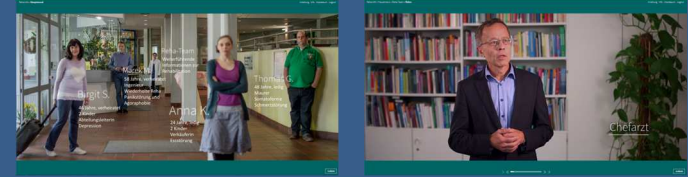
## 2 | Study sample

	CG (N=243)	IG (N=229)	Total (N=472)
<b>Gender</b> ♀	65.0%	65.5%	65.3%
<b>Age</b> in years	48 ± 11	48 ± 11	48 ± 11
<b>Permanent relationship</b>	73.0%	72.9%	72.9%
<b>Marital status*</b> - married	52.4%	52.4%	52.4%
<b>Education*</b> - Secondary school / high school	42.4%	38.4%	40.5%
<b>Employment status*</b> - fulltime	41.7%	49.3%	45.3%
<b>Pre-information</b> – evaluation of the rehab-clinic	70.9%	72.3%	71.6%
<b>Pre-information</b> – homepage of the rehab-clinic	91.3%	92.0%	91.7%

➤ No differences between the CG and IG in the main socio-demographic characteristics.

*\*In each case only the most frequent category is listed.*

### 3 | Utilisation of Reha:Info



- Number of **Logins**:  $M = 3.99$ ;  $SD = 3.32$ ; Range = [0;30]
- $N = 164$  clicked on **at least one video** of 36 videos available
  - Number of videos clicked on (including multiple selection of a video):  $M = 18.96$ ;  $SD = 14.26$ ; range = [1; 72]
  - Number of **different videos**:  $M = 17.02$ ;  $SD = 12.12$ ; range = [1; 36]
  - Number of videos **watched until the end** (incomplete data due to technical problems, therefore it comes to an underestimation of the actual rate):  $M = 18.05$ ;  $SD = 13.81$ ; range = [1; 64]
  - **High-User**: More than 13 videos watched (median-split)
  - 24 participants could not use Reha:Info as wished due to **technical problems**

### 3 | Primary outcome – Treatment expectancy

- No significant effect of Reha:Info on Treatment Expectancy (CEQ) prior to the beginning of inpatient psychosomatic rehabilitation (T1); no difference between high-/ and low-users

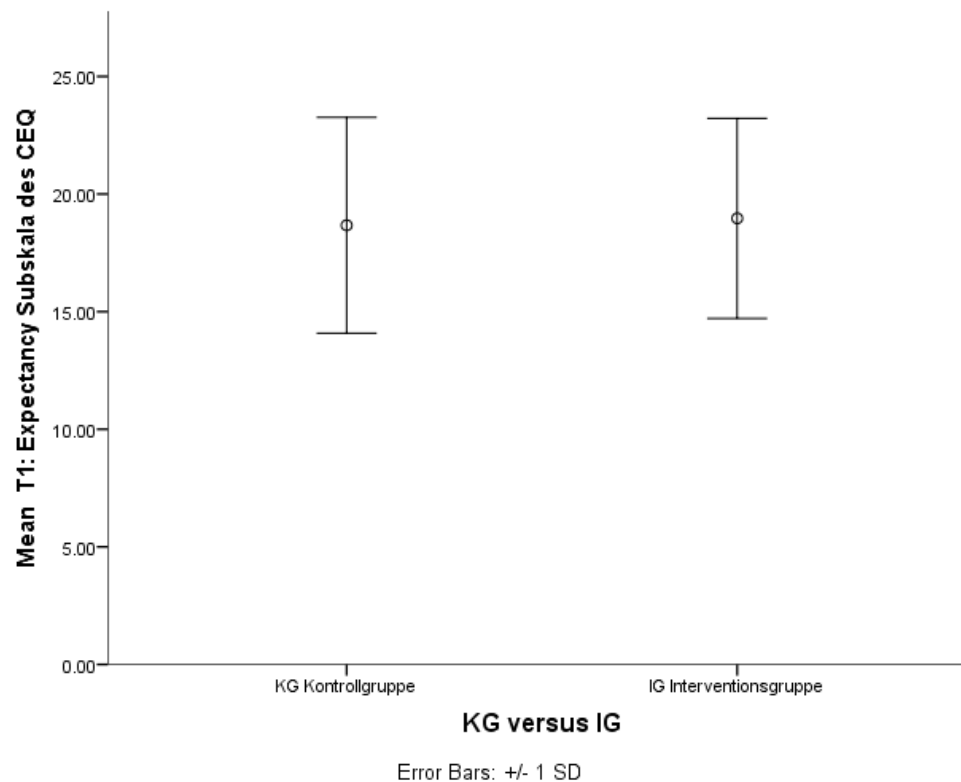


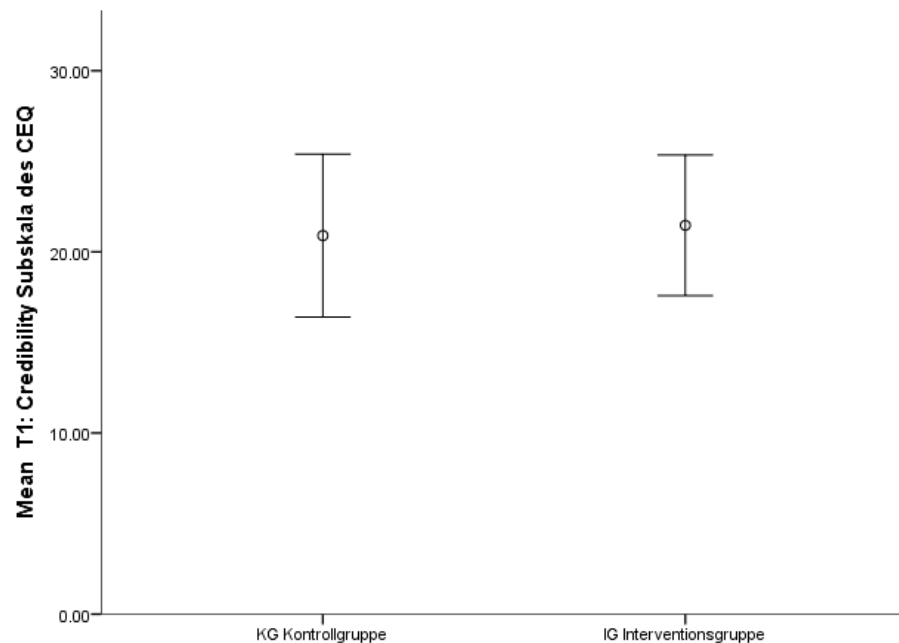
Table 1: Per protocol ANCOVA analysis: differences between CG (N = 165) and IG (N = 132) in treatment expectancy at t1 (CEQ t1) controlled for treatment expectancy at baseline (CEQ t0)

	F	df1/df2	Sig	Partial $\eta^2$
Intercept	51.57	1/196	<.001	.149
Expectancy t0	266.15	1/196	<.001	.475
IG versus CG	0.08	1/196	.775	<.001

Model fit:  $F(2, 295) = 133.12, p <.001, \eta^2 = .475$

### 3 | Secondary outcome – treatment confidence

- No significant effect of Reha:Info on treatment confidence (Treatment Credibility; CEQ) prior to the beginning of the psychosomatic rehab (T1); no difference between high-/ and low-users



Error Bars: +/- 1 SD

Table 2: Per protocol ANCOVA analysis: differences between CG (N = 165) and IG (N = 132) concerning treatment credibility (CEQ t1) at t1 controlled for treatment credibility at baseline (CEQ t0)

	F	df1/df2	Sig.	Partial $\eta^2$
Intercept	59.74	1/296	<.001	.169
Credibility t0	312.45	1/296	<.001	.515
IG versus KG	0.289	1/296	.591	.001

Model fit:  $F(3, 293) = 3.50, p = .03, \eta^2 = .516$

### 3 | Secondary outcome – work-related motivation

- Tendency effect ( $p = .091$ ) of Reha:Info on work-related therapy motivation (FBTM) prior to rehabilitation (t1); no difference between high-/ and low-users

Table 3: work-related motivation (FBTM) at t0 and t1 regarding CG and IG

	CG		IG	
	Mean	SD	Mean	SD
Motivation at t0	89.18	11.75	87.82	12.91
Motivation at t1	88.03	12.22	89.06	11.78

Table 4: Per protocol ANCOVA analysis: differences between CG (N = 165) and IG (N = 132) concerning work-related therapy motivation at t1 (FBTM total t1) controlled for work-related therapy motivation at baseline (FBTM total at t0)

	F	df1/df2	Sig	Partial $\eta^2$
Intercept	30.65	1/296	<.001	.094
FBTM total at t0	757.70	1/296	<.001	.720
IG versus CG	2.87	1/296	<b>.091</b>	<b>.010</b>

Model fit:  $F(2, 295) = 378.90, p < .001, \eta^2 = .720$



### 3 | Satisfaction with Reha:Info

- Overall 88% of users (= participants IG and at least 1 video) very content; 86% would recommend Reha:Info and 69% were stimulated to think about rehabilitation.

	Low User (≤ 12 Videos)			High User (> 13 Videos)			t	df	p
	N	Mean	SD	N	Mean	SD			
All in all, I was satisfied with the website.	75	3,07	0,76	75	3,39	0,57	-2,92	148	<b>.004</b>
I was satisfied with the patients' videos.	74	2,93	0,80	75	3,32	0,60	-3,36	147	<b>.001</b>
I was satisfied with the experts' videos.	75	3,03	0,77	75	3,31	0,57	-2,53	148	<b>.012</b>
Patients presented seemed pleasant to me.	74	2,92	0,66	75	3,16	0,59	-2,35	147	<b>.020</b>
I could empathise with the patients presented.	73	2,88	0,90	75	3,19	0,67	-2,38	146	<b>.018</b>
I had a good understanding of the patients presented.	74	2,77	0,87	74	3,11	0,63	-2,71	146	<b>.008</b>
I was motivated to think about the forthcoming rehab.	74	2,69	0,91	75	3,00	0,84	-2,18	147	<b>.031</b>

## 4 | Summary / Discussion

- Unexpected low participation rate
  - Feasibility study indicates higher utilisation rates without study.
- No significant effect on primary outcome regarding rehabilitation
  - Number of cases too small for small expected effects?
  - Correct choice of outcome criteria?
  - Further subgroup-analysis of non-participants planned.
- High satisfaction and acceptance
  - Users of the website are satisfied; the majority used it actively; users were stimulated to think about forthcoming rehabilitation.
  - High-users show higher satisfaction and identification.

# Thanks a lot you for your attention!



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T. Akulenko  
C. Seckert



Dr. W. Franke  
S. Regenfuß  
A. Brand



medienzentrum  
Universität Mainz

Dr. N. Labitzke  
D. Schulz  
M. Hamman  
T. Dicke  
P. Fink



AHG Klinik für  
Psychosomatik  
Bad Dürkheim

Dr. P. Deibler  
S. Schmädeke  
Prof. Dr. C. Bischoff  
Dr. K. Limbacher  
M. Prajitno



Prof. Dr. M. Siepmann  
K. Hagen  
Dr. R. J. Knickenberg  
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Dr. I. Dahn  
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S. Zimmermann  
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