Better patient knowledge and worse treatment outcome after written patient information in inpatient cognitive behaviour therapy as compared to non-informed patients

Michael Linden*1 and Janice Wasilewski1

Abstract: Patient information and education is an important task in medicine in general and psychotherapy in particular. This can be done verbally but also by written materials (bibliotherapy). Cognitive behaviour therapists from an inpatient department of behavioural medicine were provided with specially developed brochures on phobia, general anxiety, hypochondriasis, cognition and emotion, coping, and chronic illness, which they could use to their discretion in the treatment of their patients, who had been randomized either to a bibliotherapy group (n = 196) or a control group (n = 181). At the end of the treatment, patients in the bibliotherapy group showed significantly better health knowledge than control group patients. Patients with less education showed the biggest increase. Indicators of the treatment process showed for the bibliotherapy group less understanding of the illness and treatment process, less mutual understanding, less well-being during the session, and sympathy. At the end of the treatment patients and therapists alike rated the outcome in the bibliotherapy group less favourable than in the control group. The conclusion is that patient information can have side effects, which should get proper attention in research and clinical practice.
1. Introduction
There is a general consensus that patients have to be informed about their illness, treatment options, and prognosis. This is important to allow an informed decision-making and to improve patient cooperation. Patient information or education can be done by therapists personally or by written material, i.e. bibliotherapy (Grahlmann & Linden, 2005). Bibliotherapy is easy to use, cost-effective, easily accessible and can reach many patients at a time (Adams & Pitre, 2000; Norcross, Santrock, Campbell & Smith, 2003).

Studies show that self-help manuals or bibliotherapy can have positive therapeutic effects and are more effective than no treatment or waiting list controls, even with little or no contact to a therapist (Abramowitz, Moore, Braddock, & Harrington, 2009; Angioli et al., 2014; Apodaca & Miller, 2003; Den Boer, Wiersma, & Van Den Bosch, 2004; Gregory, Canning, Lee, & Wise, 2004; Lenz et al., 2016; Moldovan, Cobeau, & David, 2013; Muschalla, Glatz, & Linden, 2013; Pearey, Anderson, Egan, & Rees, 2016; Rapee, Abbott, & Lyneham, 2006). There are also comparisons of bibliotherapy with therapist applied cognitive therapy. Some researchers reported less or equal effects (Floyd et al., 2006; Rohde, Stice, Shaw, & Gau, 2015) while others showed that cognitive behaviour therapy is more effective than bibliotherapy (Högdahl, Birgegard, & Björck, 2013; Rohde et al., 2015).

Bibliotherapy can also be used as integral part of behaviour therapy to facilitate patient education, improve the cooperation and responsibility of the patient, the understanding of illness and treatment strategies, and stimulate behaviour changes (Adams & Pitre, 2000; Campbell & Smith, 2003; Floyd, 2003; Lawrence & Silverberg, 2003; Pardeck, 1994; Silverberg, 2003).

The general notion is that patient information has positive effects. Nevertheless, it is evident that medical information can also cause problems and should fulfill basic standards of quality (Durand et al., 2015). Information can be wrong and misleading. It can also overtax and confuse patients, and cause irritation. Medical and health-related information is often complex. Many print materials for patient education require literacy levels of high school graduates at minimum (Kerka, 2000; Root & Stabileford, 1999; Rudd, Colton, & Schacht, 2000). The ability of patients to understand such information is called health literacy (DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004; Kickbusch, 2008; Kickbusch & Maag, 2009; Nielsen-Bohlman, Panzer, & Kindig, 2004; Nutbeam, 2000; Schulz & Nakamoto, 2005). Persons with lower health literacy were 1.5 to 3 times more likely to experience poor health outcome in respect to different mental and somatic illnesses and have a higher risk to misunderstand diagnoses, directions for administering drugs or self-care instructions (DeWalt et al., 2004; González-Chica et al., 2016; Halbach et al., 2016; Miller, 2016). It is therefore an important task for therapists and health managers to provide information, which is correct, trustworthy and understandable to the very person in need of this information and also at the point when it is needed.

In the present study, the goal has been to develop technically and therapeutically optimal written patient education materials for use in cognitive behaviour therapy. The idea has been to free therapists from time-consuming explanations by leaving it to the patient to read information needed for the understanding of his problems and for cooperation in the treatment. The expectation has been that patient leaflets, which are given to the patient by the psychotherapist during the ongoing treatment will a) increase the health and treatment knowledge of patients, b) make the therapeutic interaction easier, and c) improve treatment outcome.
2. Method

2.1. Setting and participants
The study was done in an inpatient department of behavioural and psychosomatic medicine. Most patients are admitted by health insurance when they have been on sick leave for some time and their ability to work is endangered because of mental disorders. The inpatient treatment lasts on average five to six weeks including two individual and two group sessions of cognitive behaviour therapy per week, drug treatment as needed, occupational therapy, sport therapy or social support treatment.

Patients were treated by 24 cognitive behaviour therapists, i.e. 66% physicians and 34% psychologists. 62.5% female. They worked full time and took care of about 10 patients. They have graduated and are licensed in cognitive behaviour therapy according to state regulations. They are routinely supervised once a week, using tape recordings of the cognitive behaviour therapy sessions.

2.2. Patient education by bibliotherapy
Six brochures were developed to inform patients about (a) phobia and exposure treatment, (b) symptoms of anxiety and coping with feelings of anxiety, (c) hypochondriasis and how to cope with body-related anxieties, (d) coping with chronic illness, (e) the impact of cognition on emotions and behaviour, and (f) coping with critical life events. The brochures had about 3.000 words or 10 pages. The content has been developed in a stepwise process based on the scientific literature and feedback from therapists and patients (Herm & Linden, 2013).

Readability of the texts was analysed with the Flesch Reading Ease score (Flesch, 1948). The average reading score of all brochures was 45.8, which is equivalent to an easy to read newspaper and indicates that the texts are simple to read also for people who have only basic school education (Mihm, 1973).

Understandability of the brochures was assessed with the “questionnaire for text understandability” (Langer, Schulz von Thun, & Tausch, 1974) with the dimensions simplicity, structure, shortness and stimulation. The understandability ranged between 0.83 and 1.34, which indicates that the brochures were well understandable for our patients.

To measure health knowledge, 10 questions per brochure were developed, asking for the content and learning objectives, which could be answered in a multiple choice format with four alternatives per item. The bibliotherapy group got health knowledge questions according to the content of the very brochures they had received. The control group got a random selection of health knowledge questions. Health knowledge was assessed at the end of treatment before patients were discharged from the hospital.

2.3. Design
Patients were randomly assigned to a bibliotherapy group or a control group according to the patient identification number (even = intervention group, uneven = control group), which was assigned to patients independently of any personal factors by the hospital administration. Both study groups received cognitive behaviour therapy. The same therapists treated both types of patients according to individual needs. In the bibliotherapy group, therapists were free to decide which brochure they handed out, so that the information was personalized. This approach was used to integrate the information in the ongoing treatment process as good as possible.

Patients were informed about the study and gave their written informed consent. Ethical and juridical approval was given by the internal review board of the Federal German Pension Fund.

2.4. Instruments
The VAS-TS (Visual Analogue Scale for assessment of therapy sessions (VAS; Langhoff, Bär, Zubrägel, & Linden, 2008) measures the quality of the therapy session. It covers in the patient
version 1. importance of the treatment topic, 2. understanding of the treatment strategy, 3. mutual understanding, 4. progress in the session, 5. Well being in the session, 6. overall progress. The therapist makes the same ratings and additionally reports whether he felt that the patient is likeable and whether a good cooperation could be established. Assessments were made after the therapy session by patient and therapist independently from one another and collected so that one side did not see the judgements of the other.

The Brief-COPE (Carver, 1997) measures dispositional and situational coping behaviour with 28 Items which can be summarized as problem-oriented coping, active emotional coping, and avoidant emotional coping.

The SCL-90 (Symptom-Checklist, Franke, 2016) is a 90 item self-rating instrument, which covers a variety of psychosomatic symptoms and complaints. Outcome is reported as global severity index (GSI), which reflects the general level of subjective complaints.

The therapist and patient outcome rating (TAF and PAF, Heuft et al., 1998) asks for improvements during treatment in respect to somatic well-being, psychological well-being, self-esteem, social problems, family relationships, professional relationships, self-efficacy, understanding of illness, orientation to the future. Ratings are made on a 5-point Likert scale with 1 = unimproved, 2 = little improved, 3 = much improved, 4 = very much improved, 5 = completely improved.

The ability to work is rated by two items with yes, partly and no. A 10-point visual analogue scale assesses the global treatment effectiveness.

2.5. Statistical analyses
The design started with the one-sided hypothesis that patients receiving written information (a) show better health knowledge and (b) a better treatment process in comparison to patients without information.

After seeing that hypothesis (b) was not supported additional exploratory multi-level analyses were done to look for evidence that informed patients were doing worse in treatment. Analyses of variance were calculated for gender and education.

3. Results

3.1. Patients
A convenience sample of 416 patients was asked to participate and 377 agreed and were randomized to the bibliotherapy (N = 196) and the control group (N = 181). Their age was on average 47.4 years (SD = 8.66, range = 19–67), 68% were female, 37% had finished a college education. According to the clinical diagnoses which were taken from the physician’s letter at discharge from the hospital, patients were suffering from organic mental disorders (3.4%), alcohol and substance abuse (6.4%), schizophrenia (1.7%), affective disorders (27.3%), anxiety disorders (66%), behavioural syndromes associated with somatic symptoms (1.3%), personality and behavioural disorders (7.7%), mental retardation (0.3%), developmental disorders (3.4%) and behavioural disorders (1.1%). There were no significant differences in gender, age, educational level, or diagnoses between the groups.

3.2. Distribution of brochures
Therapists in the bibliotherapy group distributed 349 brochures, i.e. on average 1.7 brochures per patient, or one for 42.8% of patients, two for 37.2% of patients, three for 16.8%, up to six for one patient. Most often distributed was the brochure “cognition and emotion” (n = 137) and “coping with critical life events” (n = 76). On average, the first brochure was handed out 8 days after inclusion in the study when 31 days remained until discharge from the hospital.
### 3.3. Increase in health knowledge

The health knowledge questionnaire was filled in by 69% (N = 136) of the bibliotherapy group and 73% (N = 132) of the control group. At the end of the treatment, patients in the bibliotherapy group showed significantly and relevantly higher scores on the knowledge test as compared to the control group (bibliotherapy: M = 8.6, SD = 1.6; control: M = 6.9, SD = 1.9; t(266) = −8.15, p < .001)

Analyses of variance showed in regard to gender that there were statistically significant differences in health knowledge between the sexes, but this was identical in the intervention and the control group (intervention group; males = 8.33, sd 2.0, females = 8.68, sd 1.7; control group males = 6.52, sd 1.9, females = 6.98, sd 2.3; ANOVA: group F 43.30, p > .001; gender F 2.25 p .13; gender by group F .04, p .84). There were also significant differences between education groups. The analysis of variance showed that this was due to differences in patients with lower education (intervention group: no education = 7.8, sd 2.3; primary school = 8.6, sd. 1.8; high school = 8.6, sd 2.0; university = 8.9, sd 1.5; control group: no education = 3.4, sd 2.9; primary school = 6.4, sd. 2.3; high school = 7.7, sd 1.6; university = 7.8, sd 1.4; ANOVA F 12.7 p < .001; group F32.6 p < .001; education F 7.4 p < .001; education by group F 3.7 p < .01)

### 3.4. Therapeutic relationship and process

Patients of group B reported in every third therapy session that the content of the brochures was addressed in 50.7% of cases by the therapist and in 12.4% by themselves. Therapists reported that in 66% of cases they themselves and in 15.3 % patients referred to the brochures.

Figure 1 gives an overview on ratings of patients and therapists regarding the treatment sessions. We report the mean across all session ratings. Across all items mean ratings are lower in the bibliotherapy group as compared to the control group. This is almost significant (p < .1) for well-being in the session, overall progress in the patient ratings and for understanding of treatment, important topic, likeable patient, and cooperation in the therapist ratings.

The Brief-COPE (Carver, 1997) showed at the end of treatment somewhat less problem-oriented coping (bibliotherapy group: M = 2.5, SD = .53; control group: M = 2.6, SD = .5; p = .048), and avoidant emotional coping (bibliotherapy group: M = 2.35, SD = .41; control group: M = 2.41, SD = .38; p = .08) in the bibliotherapy group, and no differences in active emotional coping.

### 3.5. Treatment outcome

The Global Severity Index of the SCL-90-R improved significantly over time (t(727) = 24.9, p < .001), but bibliotherapy did not have a differential effect.
The global outcome ratings indicated according to therapist ratings across all items less positive developments during treatment in the bibliotherapy group (Figure 2), regarding somatic well-being ($t = 1.9, p = 0.029$), psychological well-being ($t = 1.8, p = 0.03$), family relation ($t = 1.8, p = 0.03$), understanding of illness ($t = 1.7, p = 0.04$), and orientation to the future ($t = 1.9, p = 0.02$).

According to the ability to work at the end of treatment 67.5% of patients in the bibliotherapy group as compared to 70.6% of patients in the control group were judged as fit to work by their therapists ($\chi^2 = 4.8$, $p = 0.04$).

According to the patients there were similarly worse ratings in regard to self-esteem ($t = 1.6, p = 0.05$), family relations ($t = 2.2, p = 0.01$), autonomy ($t = 1.8, p = 0.03$), understanding of illness ($t = 2.0, p = 0.01$), orientation to the future ($t = 2.1, p = 0.014$), and psychological well-being ($t = 2.0, p = 0.02$).

Patients and therapists additionally filed out a 10-point visual analogue scale which shows a global rating whether the overall treatment goal has been reached. There was a significant difference between the bibliotherapy and the control group. (therapist: bibliotherapy group: $M = 6.61$, $SD = 1.9$; control group: $M = 7.08$, $SD = 1.8$, $t = 2.3$, $p = 0.009$; patient: bibliotherapy group: $M = 5.50$, $SD = 2.7$, control group: $M = 5.98$, $SD = 2.4$, $t = 1.78$, $p = 0.03$). Additionally, the patients have been asked whether it had been worthwhile to come to the hospital, which was answered more negatively in the bibliotherapy (bibliotherapy group: $M = 7.16$, $SD = 2.3$; control group: $M = 7.65$, $SD = 2.1$, $t = 2.09$, $p = 0.01$). In regard to the ability to work, patients in the bibliotherapy were more often send back to work immediately following the inpatient stay (bibliotherapy group: 84.5%, control group: 80.2, $p = 0.04$), while both groups were to a similar seen as able to work in general (bibliotherapy group: 92.8%, control group: 91.8, $p = 0.22$).

4. Discussion
This is to our knowledge the first controlled study which looks at positive and negative effects of written patient information in the context of an ongoing psychotherapy. As there is ample evidence that psychological interventions can have positive as well as negative effects. Detailed studies and analyses in both directions are needed.

The initial hypothesis of the present study was that health knowledge can be improved by providing patients with written educational materials and that this fosters the therapeutic process and improves the outcome. The results support the first assumption, but not the second and third.
Contrary to our expectation, the data even suggest a negative effect of patient education on the therapeutic interaction and the treatment result.

It is of interest that additional written information can further increase health knowledge, considering that therapists always talk to their patients and try to increase the understanding of the illness. There still seems to be room for more. There is a trend for males and people with lower education to benefit. An explanation could be that males and people with lower education are often less health oriented and therefore have in general only limited health knowledge (Gibbons, Thorsteinsson, & Loi, 2015; Jordan & Hoebel, 2015; Liu, Wang, & Chen, 2015), so that they gain most from additional information. This may especially be the case as the brochures were set up in a way so that they were easily understandable, although the information was complex. Brochures had the advantage that patients could take their time to read and consider the information.

When informing patients it is not only a question of theoretical knowledge but also of practical knowledge. Patients should learn how to cope with their illness and cooperate in treatment. The question is what patients have learned in this respect by reading brochures. They undoubtedly have acquired some theoretical knowledge and better know some technical terms. This does not necessarily say that they have new practical competencies. The results regarding the treatment process and outcome shed some doubt on this. The conclusion is that better health knowledge is not necessarily identical with better health behaviour.

Written information should also free the therapist from educational interventions and allow more time for specific psychotherapeutic interventions. Therefore, not only the content is of interest but also when and in which context the information is provided. The idea has been that it may be helpful for the therapists and the therapeutic process, if they can hand out written information at the proper point of treatment. This could save time, as the therapist must not explain everything himself, and can instead focus on necessary psychological changes. The data did not only oppose this expectation but even point in the other direction. Looking at patient and therapist ratings alike, all available assessments speak for a worse therapeutic relationship and process. Therapists see their patients as less likeable, the mutual understanding is worse and there is less progress per session. This is similarly reflected in the outcome ratings at the end of treatment. All ratings go in the direction of poorer improvements in the bibliotherapy group. As patients have been randomly assigned to both groups, these differences can be attributed to the intervention.

These unexpected side effects of bibliotherapy can possibly be due to the fact, that preferably persons with lower education showed an increase in knowledge. These are the same individuals who might be confused by too much information. Negative consequences and side effects of medical information are discussed under the term “nocebo effect”, similar but in contrast to “placebo” (Arnold, Finniss, & Kerridge, 2014; Bester, Cole, & Kodish, 2016; Boettcher, Rozental, Andersson, & Carlbring, 2014; Cohen, 2014; Colloca, 2017; Househ, Borycki, & Kushniruk, 2014; Kleine-Borgmann & Bingel, 2018; Petersen et al., 2014; Petrie & Rief, 2019; Rief, Bingel, Schedlowski, & Enck, 2011; Ubel, Scherr, & Fagerlin, 2017). Nevertheless, it is astonishing that such an effect can be seen in bibliotherapy, which is closely integrated in cognitive behaviour therapy. The indicators of an impaired patient–therapist relationship suggest that the informed patient has more information but at the same time also more questions and problems. This must be dealt with by the therapist. However, this may hinder to focus on the real treatment problem and in the end lead to possibly unnecessary discussions between therapist and patient. As a result, the global outcome of the inpatient treatment is jeopardized.

There are several limitations of the study, which should be taken into account. The study was done in an inpatient setting, and results could be different in other settings. There has been no testing of knowledge at the beginning of treatment, so that in spite of randomization, it cannot fully be excluded that there are initial group differences. We do not have tape recordings of the
individual sessions and can therefore not say what has been done in reality. We cannot say when therapists decided to use the brochures, as this was left to their individual therapeutic decision.

Strengths of the study are that well-designed written materials have been used, that therapist could dispense the information as most appropriate in the therapeutic course and that treatment, apart from the bibliotherapy, followed routine procedures, which gives validity and relevance to the findings.

5. Conclusion
Our data suggest that bibliotherapy in addition to cognitive behaviour therapy can help to increase health knowledge. More information can have negative effects on the therapeutic encounter and treatment outcome.

Practice Implications
Written information can help to increase patient knowledge, even as adjunct to cognitive behaviour therapy. More information can have side effects even, or possibly in particular, as adjunct to cognitive behaviour therapy. There is a Janus face to patient information which should get more attention in research and practice.

Competing Interest Statement
The authors have no competing interest to report.

Ethical Approval
All procedures performed in the studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The study was reviewed and approved by the internal review board and department of data protection of the Federal German Pension Agency (Az.: 8011-106-31/31.51.5).

Informed Consent
Informed consent was obtained from all individual participants included in the study.

Acknowledgements
None.

Funding
The study was supported by a research grant of the Federal German Pension Fund (DRV-Bund, Az.: 8011-106-31/31.51.5); Federal German Pension Fund (8011-106-31/31.51.5).

Author details
Michael Linden
E-mail: michael.linden@charite.de
ORCID ID: http://orcid.org/0000-0002-5763-5512
Janice Wasilewski
E-mail: janicewasilewski@web.de

1 Research Group Psychosomatic Rehabilitation, Charité University Medicine Berlin, Berlin, Germany.

Citation information
Cite this article as: Better patient knowledge and worse treatment outcome after written patient information in inpatient cognitive behaviour therapy as compared to non-informed patients. Michael Linden & Janice Wasilewski, Cogent Psychology (2019), 6: 1612825.

References
Abramowitz, J. S., Moore, E. L., Braddock, A. E., & Harrington, D. L. (2009). Self-help cognitive-behavioral therapy with minimal therapist contact for social phobia: A controlled trial. Journal of Behavior Therapy and Experimental Psychiatry, 40, 98-105. doi:10.1016/j.jbtep.2008.04.004
Adams, S. J., & Pitre, N. L. (2000). Who uses bibliotherapy and why? A survey from an underserved area. Canadian Journal of Psychiatry, 45, 645–649. doi:10.1177/070674370004500707
Angioli, R., Potti, F., Capriglione, S., Aloisi, A., Aloisi, M. E., Luvero, D., ... Frati, P. (2014). The effects of giving patients verbal or written pre-operative information in gynecologic oncology surgery: A randomized study and the medical-legal point of view. European Journal of Obstetrics & Gynecology and Reproductive Biology, 177, 67–71. doi:10.1016/j.ejogrb.2014.03.041
Apodaca, T. R., & Miller, W. R. (2003). A meta-analysis of the effectiveness of bibliotherapy for alcohol problems. Journal of Clinical Psychology, 59(3), 289–304. doi:10.1021/jcp.10130
Arnold, M. H., Finniss, D. G., & Kerridge, I. (2016). Medicine’s inconvenient truth: The placebo and nocebo effect. Internal Medicine Journal, 44(4), 398–405. doi:10.1111/imj.12380
Bester, J., Cole, C. M., & Kodish, E. (2016). The limits of informed consent for an overwhelmed patient: Clinicians’ role in protecting patients and preventing overwhelm. AMA Journal of Ethics, 18(9), 869. doi:10.1001/journalofethics.2016.18.9.peer2-1609
Boettcher, J., Rozental, A., Andersson, G., & Carlbring, P. (2014). Side effects in internet-based interventions for social anxiety disorder. Internet Interventions, 1 (1), 3–11. doi:10.1016/j.invent.2014.02.002
Campbell, L. F., & Smith, T. P. (2003). Integrating self-help books into psychotherapy. Journal of Clinical Psychology/In Session, 59(2), 177–186. doi:10.1002/jcpl.10140
Carver, C. S. (1997). You want to measure coping but your protocol’s too long: Consider the brief cope. International Journal of Behavioral Medicine, 4(1), 92. doi:10.1207/s15327558imb0401_6
Cohen, S. (2014). The nocebo effect of informed consent. Bioethics, 28(3), 147–154. doi:10.1111/bioe.12019
Colloca, L. (2017). Nocebo effects can make you feel pain. Science, 358(6359), 44. doi:10.1126/science.aap8488
Den Boer, P. C., Wiersma, D., & Van Den Bosch, R. J. (2004). Why is self-help neglected in the treatment of emotional disorders? A meta-analysis. Psychological Medicine, 34(6), 959–971. doi:10.1017/S003329170300179X
DeWalt, D. A., Berkman, N. D., Sheridan, S. L., Lohr, K. N., & Pignone, M. (2004). Literacy and health outcomes: A systematic review of the literature. Journal of General Internal Medicine, 19, 1228–1239. doi:10.1111/j.1525-1497.2004.01033.x
Durand, M. A., Witt, J., Joseph-Williams, N., Newcombe, R. G., Politi, M. C., Sivell, S., & Elwyn, G.
(2015). Minimum standards for the certification of patient decision support interventions: Feasibility and application. Patient Education Counseling, 98(4), 462–468. doi:10.1016/j.pec.2014.12.009

Flesch, R. F. (1948). A new readability yardstick. Journal of Applied Psychology, 32(3), 221–233. doi:10.1037/ h0057532

Floyd, M., Rohren, N., Shackelford, J. A. M., Hubbard, K. L., Parnell, M. B., Scogin, F., & Coates, A. (2006). Two-year follow-up of bibliotherapy and individual cognitive therapy for depressed older adults. Behavior Modification, 30(3), 281–294. doi:10.1177/ 01454455063261176

Floyd, M., Scogin, F., McKendree-Smith, N. L., Floyd, D. L., & Rokke, P. D. (2004). Cognitive therapy for depression. A comparison of individual psychotherapy and bibliotherapy for depressed older adults. Behavior Modification, 28(2), 297–318. doi:10.1177/ 0145445503259284

Floyd, M. R. (2003). Bibliotherapy as an adjunct to psychotherapy for depression in older adults. Journal of Clinical Psychology/In Session, 59(2), 187–195. doi:10.1020/jcpsi.1004

Franke, G. H. (2016). Symptom-Checklist-90®-Standard. Hogrefe Verlag.

Gibbons, R. J., Thorsteinsson, E. B., & Loi, N. M. (2015). Beliefs and attitudes towards mental illness: An examination of the sex differences in mental health literacy in a community sample. PeerJ, 3, e1004. doi:10.7717/peerj.1004

Gonzalez-Chica, D. A., Mnis, Z., Avery, J., Duszyński, K., Doust, J., Tideman, P., ... Stocks, N. (2016). Effect of health literacy on quality of life amongst patients with ischaemic heart disease in Australian general practice. PLoS one, 11(3), e0151079. doi:10.1371/ journal.pone.0151079

Grahmnn, K., & Linden, M. (2005). Bibliothek [Bibliotherapy]. Verhaltenstherapie, 15, 88–93. doi:10.1158/000085714

Gregory, R. J., Canning, S. S., Lee, T. W., & Wise, J. C. (2004). Cognitive therapy for depression: A meta-analysis. Professional Psychology: Research and Practice, 35, 275–280. doi:10.1037/0735-7028.35.3.275

Hallbach, S. M., Enders, A., Kowalski, C., Pförtner, T. K., Pfaff, H., Wesselmann, S., & Ernstmann, N. (2016). Health literacy and fear of cancer progression in elderly women newly diagnosed with breast cancer – A longitudinal analysis. Patient Education Counseling, 99(5), 855–862. doi:10.1016/j.pec.2015.12.012

Herrn, K., & Linden, M. (2013). Qualitätssicherung von schriftlichen Patienteninformations [Quality assurance of written patient information]. Psychotherapie, Psychosomatik, medizinische Psychologie, 63, 176–184. doi:10.15356/0032-1330012

Heuft, G., Senf, W., Bell, K., Cording, C., Geyer, M., Janssen, P. L., ... Wirsching, M. (1998). Psy-BaDo. Psychotherapeut, 43(1), 48–52. doi:10.1007/ s002780050099

Hirai, M., & Clum, G. A. (2006). A meta-analytic study of self-help interventions for anxiety problems. Behavior Therapy, 37, 99–111. doi:10.1016/j.beth.2005.05.002

Högårdh, L., Birgegard, A., & Björk, C. (2013). How effective is bibliotherapy-based self-help cognitive behavioral therapy with Internet support in clinical settings? Results from a pilot study. Eating and Weight Disorders – Studies on Anorexia, Bulimia and Obesity, 18, 37–44. doi:10.1007/s40519-013-0005-3

House, M., Borycki, E., & Kushniruk, A. (2014). Empowering patients through social media: The benefits and challenges. Health Informatics Journal, 20(1), 50–58. doi:10.1177/1460458213476969

Hunt, M. G., Ertel, E., Coello, J. A., & Rodriguez, L. (2015). Empirical support for a self-help treatment for IBS. Cognition Therapy and Research, 39(2), 215–227. doi:10.1007/s10608-014-9647-3

Jordon, S., & Hoebel, J. (2015). Gesundheitskompetenz von Erwachsenen in Deutschland, Ergebnisse der Studie “Gesundheit in Deutschland aktuell” (GEDA) [Competence of health of adults in Germany, Results of the study „Health in Germany actual“]. Bundesgesundheitsblatt, 58, 942–950. doi:10.1007/ s00103-015-2200-z

Kerka, S. (2000). Health and adult literacy. Retrieved from http://www.caipro-online.org/erics/pob00016.pdf.

Kuckbusch, I. (2008). Health literacy: An essential skill for the twenty-first century. Health Education, 108, 101–104.

Kleine-Borgmann, J., & Bingel, U. (2018). Nocebo effects: Neurobiological mechanisms and strategies for prevention and optimizing treatment. International Review of Neurobiology, 138, 271–283. doi:10.1016/ bs.irn.2018.02.005

Langer, J. Schultz von Thun, F., & Tausch, R. (1974). Verständlichkeit [Readability]. München: Ernst Reinhard.

Langhoff, C., Bär, T., Zubrégly, D., & Linden, M. (2008). Therapist-patient, patient-therapist, mutual therapeutic alliance, therapist-patient-concordance, and outcome of CBT in GAD. Journal of Cognitive Psychotherapy, 22, 68–79. doi:10.1891/ 0889.8391.22.1.168

Lawrence, I., & Silverberg, L. (2003). Bibliotherapy: The therapeutic use of didactic and literacy texts in treatment, diagnosis, prevention, and training. Joo, 3, 131–135

Lenz, G., Berg, A., Breit-Gabauer, B., Lorenz-Demelbauer, S., Stamper, I., Aigner, M., ... Schaffer, M. (2016). Kognitiv-psychoedukative Therapie im Vergleich zu Bibliothek bei bipolarer Störung: Eine kontrollierte Gruppentherapiestudie. Verhaltenstherapie, 26, 92–98. doi:10.1159/000446493

Liu, Y., Wang, Y., & Chen, Y. (2015). The health literacy status and influencing factors of older Population in Xinjiang. Iran Journal of Public Health, 44(7), 913–919. PMCID: PMC4645762.

Mihm, A. (1973). Sprachstatistische Kriterien zur Tauglichkeit von Lesebüchern [Language statistical criteria for suitability of textbooks]. Linguistik und Didaktik, 14, 117–127.

Miller, T. A. (2016). Health literacy and adherence to medical treatment in chronic and acute illness: A meta-analysis. Patient Education Counseling, 99(7), 1079–1086. doi:10.1016/j.pec.2016.01.020

Moldovan, R., Cobeau, O., & David, D. (2013). Cognitive bibliotherapy for mild depressive symptomatology: Randomized clinical trial of efficacy and mechanisms of change. Clinical Psychology and Psychotherapy, 20, 482–493. doi:10.1002/cpp.1814

Muschalla, B., Glatt, J., & Linden, M. (2013). Bibliotherapy on coping with illness improves health literacy but not heart-related anxiety of patients in cardiological rehabilitation. Psychotherapy and Psychosomatics, 82 (S), 349–350. doi:10.1159/000305044

Nielsen-Bohman, L., Panzer, A. M., & Kindig, D. A. (2004). Health literacy: A prescription to end confusion. Washington DC: The National Academies Press.

Nocnass, J. C., Santrock, J. W., Campbell, L. F., Smith, T. P., Sommer, R., & Zuckerman, E. L. (2003). Authoritative guide to self-help resources in mental health (Revised ed.). New York: Guilford.
Nuteam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. Health Promotion International, 15(3), 259–267. doi:10.1093/heapro/15.3.259
Pardeck, J. T. (1994). Bibliotherapy. Contemporary Education, 65, 191–193.
Pearcy, C. P., Anderson, R. A., Egan, S. J., & Rees, C. S. (2016). A systematic review and meta-analysis of self-help therapeutic interventions for obsessive-compulsive disorder: Is therapeutic contact key to overall improvement? Journal of Behavior Therapy and Experimental Psychiatry, 51, 74–83. doi:10.1016/j.jbtep.2015.12.007
Petersen, G. L., Finnerup, N. B., Collaco, L., Amanzio, M., Price, D. D., Jensen, T. S., & Vase, L. (2014). The magnitude of nocebo effects in pain: A meta-analysis. Pain, 155(8), 1426–1434. doi:10.1016/j.pain.2014.04.016
Petrie, K. J., & Rief, W. (2019). Psychobiological mechanisms of placebo and nocebo effects: Pathways to improve treatments and reduce side effects. Annual Review of Psychology, 70, 599–625. doi:10.1146/annurev-psych-011018-102907
Roepke, R. M., Abbott, M. J., & Lyneham, H. J. (2006). Bibliotherapy for children with anxiety disorders using written materials for parents: A randomized controlled trial. Journal of Consulting and Clinical Psychology, 74, 436–444. doi:10.1136/ebhh.10.1.22
Rief, W., Bingel, U., Schiedowski, M., & Eack, P. (2013). Mechanisms involved in placebo and nocebo responses and implications for drug trials. Clinical Pharmacology & Therapeutics, 90(5), 722–726. doi:10.1038/clpt.2011.204
Rohde, P., Stice, E., Shaw, H., & Gau, J. M. (2015). Effectiveness trial of an indicated cognitive-behavioral group adolescent depression prevention program versus bibliotherapy and brochure control at 1- and 2-year follow-up. Journal of Consulting and Clinical Psychology, 83(4), 736–747. doi:10.1037/ccp0000022
Root, J., & Stableford, S. (1999). Easy to read consumer communication: A missing link in medicaid managed care. Journal of Health Politics, Policy and Law, 24(1), 1–26. doi:10.1215/03616878-24-1-1
Rudd, R. E., Colton, T., & Schacht, R. (2000). An overview of medical and public health literature addressing literacy issues: An annotated bibliography, report #14. Cambridge, MA: National Center for the Study of Adult Learning and Literacy.
Schulz, P., & Nakamoto, K. (2005). Emerging themes in health literacy. Studies in Communication Sciences, 5, 1–10.
Silverberg, L. I. (2003). Bibliotherapy: The therapeutic use of didactic and literary texts in treatment, diagnosis, prevention, and training. The Journal of American Osteopathic Association, 103, 131–136.
Ubel, P. A., Scherr, K. A., & Fagerlin, A. (2017). Empowerment failure: How shortcomings in physician communication unwittingly undermine patient autonomy. The American Journal of Bioethics, 17(11), 31–39. doi:10.1080/15265161.2017.1378753