

Why and how to teach Communication?

Learnings from a national Programme in Austria

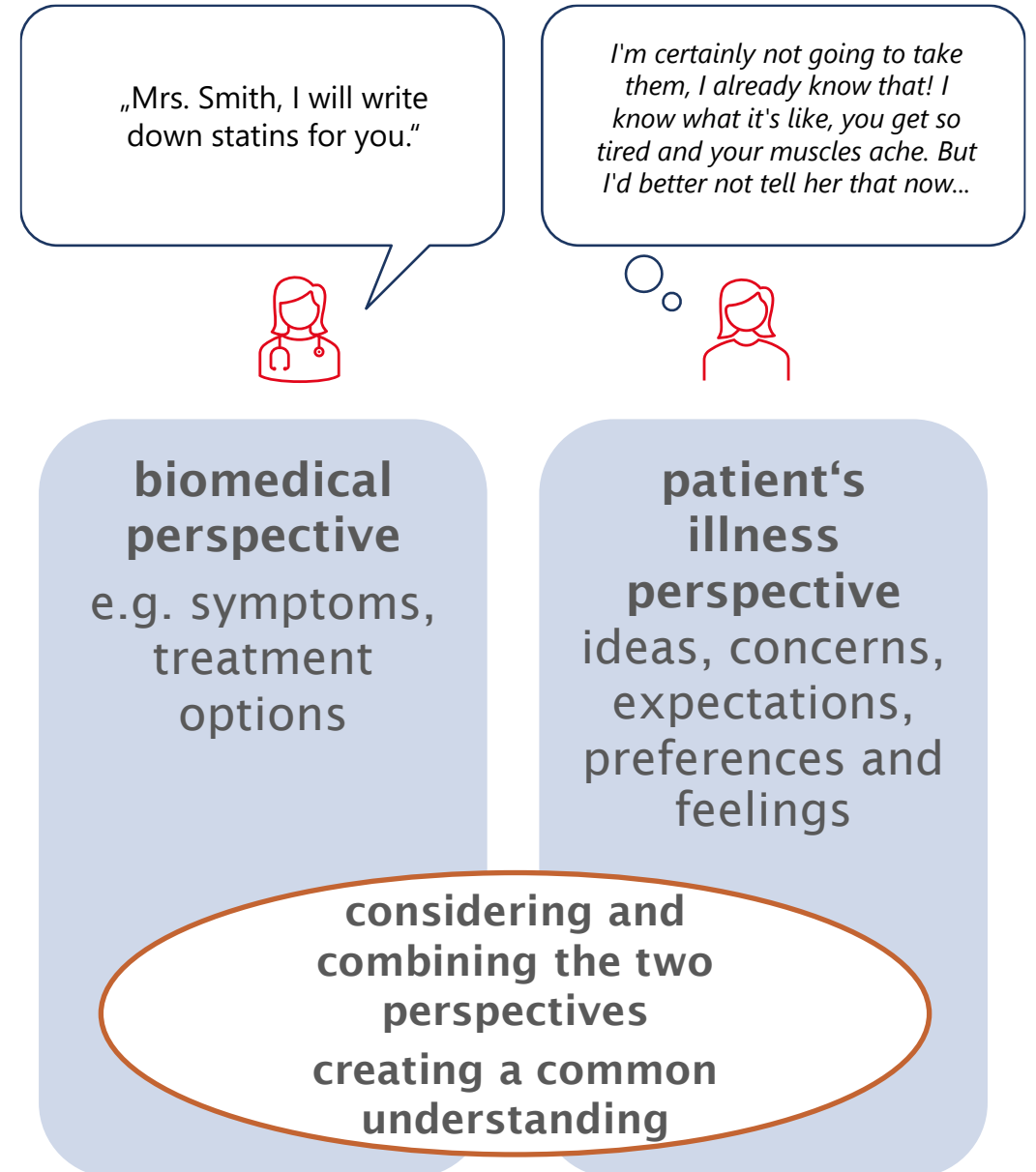
John Schlömer & Marlene Sator
HPH Conference 2024

Patient-centered communication

Essential elements:

- biopsychosocial perspective
 - patient as a person, shared power and responsibility
 - therapeutic relationship
 - consideration of diversity and cultural competence
 - patient's illness perspective & biomedical perspective
- can be taught using evidence based approaches
- should be incorporated in and adapted to all - incl. digital - contexts of clinical communication

[3-8]



Why do we need patient-centered communication?

Effects in 8 Domains:

1. Does not need more time
2. Improved health status (psychological and physiological)
3. Improved health behavior
4. Higher patient satisfaction
5. Higher patient safety
6. Fewer lawsuits due to treatment errors
7. Improved health and job satisfaction of staff
8. Health economic considerations

Sources: Ramirez et al. 1996; Stewart et al. 2000; Brown et al. 2001; Graham et al. 2002; Gandhi 2005; Thorne et al. 2005; Travado et al. 2005; Felder-Puig et al. 2006; Loh et al. 2007; Tamblyn et al. 2007; Zandbelt et al. 2007; Benner et al. 2008; Chen et al. 2008; Rakel et al. 2011; Del Canale et al. 2012; Lelorain et al. 2012; Street Jr et al. 2012; Thompson/McCabe 2012; Stahl/Nadj-Kittler 2013;

Patient-centered communication...


... is teachable/learnable

...increasingly taught
in medical education...

...gets lost in everyday practice

Interventions for providers to promote a patient-centred approach in clinical consultations (Review)

Dwamena F, Holmes-Rovner M, Gauden CM, Jorgenson S, Sadigh G, Sikorskii A, Lewin S, Smith RC, Coffey J, Olorun A



THE COCHRANE COLLABORATION®

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2012, Issue 12
<http://www.thecochranelibrary.com>

Communication Competencies **OPEN ACCESS** [View this in the German version, the English version starts at p. 3.](#) article

Desire and reality – teaching and assessing communicative competencies in undergraduate medical education in German-speaking Europe – a survey

Abstract

Objectives: Increasingly, communicative competencies are becoming a permanent feature of training and assessment in German-speaking medical schools (n=43, Germany, Austria, Switzerland – “D-A-CH”). In support of further curricular development of communicative competencies, the survey by the “Communicative and Social Competencies” (KSK) committee of the German Society for Medical Education (DGME) systematically addresses the scope and form in which teaching and assessment take place.

Methods: The flexible online questionnaire, developed in cooperation with KSK, comprises 70 questions regarding instruction (n=34), assessment (n=46), local conditions (n=5), with three fields for further remarks. For location, two to three individuals who were familiar with the respective institution’s curriculum were invited to take part in the survey.

Results: Thirty-nine medical schools (40 degree programmes) took part in the survey. Communicative competencies are taught in all of the programmes. Ten degree programmes have a longitudinal curriculum for communicative competencies; 25 programmes offer this in part. Sixteen of the 40 programmes use the Butler Consensus Statement for orientation. In over 80% of the degree programmes, communicative competencies are taught in the second and third year of studies. Almost all of the programmes work with simulated patients (n=38) and feedback (n=37). Quizzes and exclusively summative (n=12), exclusively formative (n=3), or both summative and formative (n=23) and usually take place in the fifth and sixth year of studies (n=22 and n=20). Apart from written examinations (n=15) and presentations (n=9), practical examinations are primarily administered (22/62, n=31). WAs (n=6), usually with self-developed scales (22/62, n=39). With regards to the evaluation training and the manner of results-reporting to the students, there is a high variance.

Conclusions: Instruction in communicative competencies has been implemented at all 39 of the participating medical schools. For the most part, communicative competencies instruction in the D-A-CH region takes place in small groups and is tested using the OSCE. The challenges for further curricular development lie in the expansion of feedback, the critical evaluation of appropriate assessment strategies, and in the quality assurance of events.

Keywords: medical studies, communicative competencies, instruction, assessment, longitudinal curriculum

DGME Zeitschrift für Medizinische Ausbildung 2018, Vol. 33(3), ISSN 1439-8024

communicative competencies **OPEN ACCESS** [View this in the German version, the English version starts at p. 3.](#) Letter to the Editor

Themenheft zur Vermittlung sozialer und kommunikativer Kompetenzen – Status quo

Linn Hempel¹
 Rolf Knapfel¹
 Claudia Kieselring¹
 Heerlette Löffler-Staska¹
 Swetlana Philipp²
 Katrin Rockenbach³
 Kai P. Schnabel⁴
 Anja Zimmermann⁵

- 1 Medizinische Hochschule Brandenburg Theodor Fontane, Dekanat für Studium und Lehre, Bernau/Havel, Brandenburg, Germany
- 2 Charité-Universitätsmedizin Berlin, Professur für Studien und Lehre, Bernau/Havel, Brandenburg, Germany
- 3 Universität Witten/Herdecke, Fakultät für Gesundheitswissenschaften, Lehrstuhl für die Ausbildung von Personal im Gesundheitswesen, Witten, Deutschland
- 4 Medizinische Universität Wien, Klinik für Psychiatrie und Psychotherapie und Teaching Center für Hochbegabte Programme, Wien, Österreich
- 5 Universität Jena, Universitätsklinikum Jena, Institut für Psychosoziale Medizin, Psychosoziale und Psychotherapie, Jena, Deutschland
- 6 Universität Leipzig, Fortschritt Bildung und Individualität, Projekt “Aufbruch im Transferpart”, Leipzig, Deutschland
- 7 Universität Bern, Medizinische Fakultät, Institut für Medizinische Lehre (IML), Bern, Schweiz



DGME Zeitschrift für Medizinische Ausbildung 2018, Vol. 33(3), ISSN 1439-8024

Patient Education and Counseling 100 (2017) 2054–2061

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateduocou

Dis-integration of communication in healthcare education: Workplace learning challenges and opportunities

Marcy E. Rosenbaum

Office of Consultation and Research in Medical Education, and Department of Family Medicine, University of Iowa Carver College of Medicine, 1204 MEB, Iowa City, IA 52242, USA

ARTICLE INFO

Article history:
 Received 6 January 2017
 Received in revised form 28 April 2017
 Accepted 30 May 2017

Keywords:
 Medical education
 Workplace learning
 Clinical communication
 Faculty development

ABSTRACT

The purpose of this paper, based on a 2016 Heidelberg International Conference on Communication in Healthcare (ICCH) plenary presentation, is to examine a key problem in communication skills training for health professional learners. Studies have pointed to a decline in medical students’ communication skills and attitudes as they proceed through their education, particularly during their clinical workplace training experiences. This paper explores some of the key factors in this disintegration, drawing on selected literature and highlighting some curriculum efforts and research conducted at the University of Iowa Carver College of Medicine as a case study of these issues. Five key factors contributing to the disintegration of communication skills and attitudes are presented including: 1) lack of formal communication skills training during clinical clerkships; 2) informal workplace teaching failing to explicitly address learner clinical communication skills; 3) emphasizing content over process in relation to clinician-patient interactions; 4) the relationship between ideal communication models and the realities of clinical practice; and 5) clinical teachers’ lack of knowledge and skills to effectively teach about communication in the clinical workplace. Within this discussion, potential practical responses by individual clinical teachers and broader curricular and faculty development efforts to address each of these factors are presented.

© 2017 Elsevier B.V. All rights reserved.

How can healthcare professionals be supported?

Best practice: Experience-based communication training

- oriented towards everyday clinical practice
- Participant-centred
- Practise concrete skills
- With simulated patients offering feedback and repeated practice
- Refresher for transfer



2013 Health Reform
Federal government • Provincial governments •
Social security institutions



Improving the quality of healthcare communication

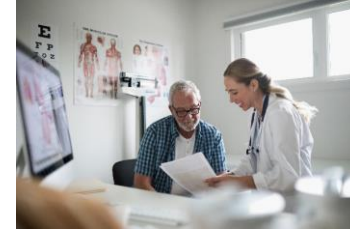
A national policy for establishing a
patient-centred culture of commu-
nication

Passed by the Federal Commission on Health System
Governance on 1 July 2016

Re-orienting healthcare towards a patient-centered culture of communication

- **overall strategic framework** by the main decision-making body of the Austrian health reform (2016)
- **Implementation** on behalf of the federal government, federal states and social insurance under the umbrella of the Austrian Health Literacy Alliance

Train the trainer-model

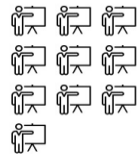


Teaching trainers

Certified comm. skills trainers

Healthcare professionals

Patients



Methods for curriculum development



Problem identification and general needs assessment:

searching relevant literature and interviewing experts and stakeholders



Needs assessment of the target group: assessment of trainee professional background, communicating with patients and communication skills teaching experience, individual needs and expectations



Broad curricular goals and specific measurable objectives were formulated for four domains



Educational strategies: based on evidence on how to effectively change behaviour in communication skills teaching



Implementation: pilot in close cooperation with tEACH, 4 cohorts since 2017



Evaluation and feedback: Global satisfaction with training and changes in self-efficacy among TTT-participants and their learners in the CST delivered were evaluated.

Train the trainer-programme (137h)

In-class courses (68 hours)

Introductory CST

What to teach

How to teach

Curriculum development (optional)

Refresher

Application homework & feedback (59 hours)

teaching video & feedback review

co-teaching & feedback review

Homework & peer work (10 hours)

review of course materials, a
practical facilitators' manual and
literature

preparation/follow-up work

exchange with peers

Communication skills training

teaser
format

Universit
y
courses

Impulse workshop (4 hours)

dealing with challenging
situations (e.g. conflicts,
strong emotions, time
pressure etc.)

Longitudinal training (12 – 16 – 20 hours)

M1: sharing information effectively

M2: dealing with strong emotions effectively

E1: breaking bad news

E2: motivational interviewing and dealing with resistance

E3: shared decision making

E4: overcoming language and socio-cultural differences

E5: psychosomatics

undergraduate

postgraduate and continuing education

Evaluation: RE-AIM-Framework

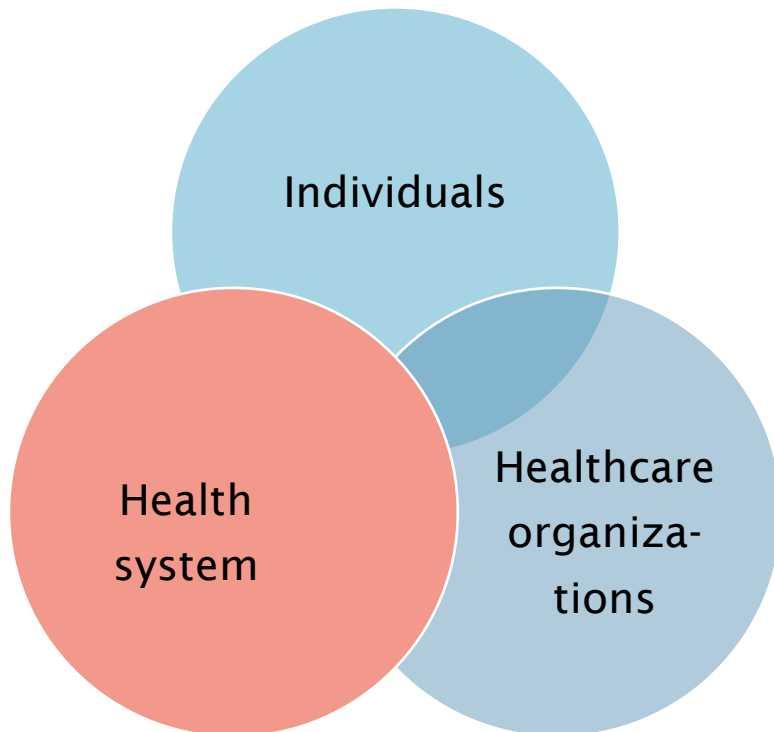
- **Reach:** *Number of participants*
 - 64 trainers, 20 SPs
 - 8.400 trained healthcare professionals
 - over 100 organizations reached
- **Effectiveness:** *Impact of the program*
 - very high levels of participant satisfaction
 - significant improvements of participant self-efficacy
- **Adoption:** *Number of settings who are willing to initiate a program*
 - about 66% plan to continue
- **Implementation:** *Delivering the program as intended*
 - quality standards
 - standard curricula
 - trainer (re-)certification
 - continuing education for trainers and SPs
- **Maintenance:** *Sustained delivery and effectiveness of the initiative*



Intervention levels

Fields of action

Aim & Measures



Workforce
development

Patient
Empowerment

Organizational
development

Health system
development

Promotion of evidence-based CST
for healthcare professionals
in Austria

- quality standards
- train the trainer-programme
- national network of trainers and SPs
- curricula for CST
- funding programmes and support for healthcare organizations

EACH and ICCH 2025



ICCH2025
INTERNATIONAL CONFERENCE
ON COMMUNICATION IN HEALTHCARE

OCTOBER 5TH - 8TH, 2025
OTTAWA, CANADA

ACH | Academy of
Communication
in Healthcare

EA|CH | International Association for
Communication in Healthcare

WHO Webinar Series

Enhancing trust through communication skills for healthcare professionals

A webinar series to transform healthcare delivery



Final Webinar on 19.11 3pm CEST

Thanks for your attention!

John Schlömer

**Gesundheit Österreich GmbH/ Austrian National Public Health Institute
Österreichische Plattform Gesundheitskompetenz (ÖPGK)/ Austrian
Platform for Health Literacy**

Stubenring 6, 1010 Wien

T: +43 676 848191 427

E: John.schloemer@goeg.at

<https://oepgk.at/schwerpunkte/gute-gespraechsqualitaet-im-gesundheitssystem/ggq-ressourcen/internationales/>

 Bundesministerium
Soziales, Gesundheit, Pflege
und Konsumentenschutz

 Gesundheit
Österreich GmbH

österreichische
plattform
gesundheits
kompetenz 

 Agenda
Gesundheitsförderung

 Kompetenzzentrum
Gesundheitsförderung
und Gesundheitssystem
Agenda
Gesundheitsförderung

 **GESUNDHEITS
ZIELE ÖSTERREICH**
Weiter denken. Weiter kommen.

 **SV**
Dachverband der
österreichischen
Sozialversicherungen

 **IfGP**
Institut für Gesundheitsförderung
und Prävention GmbH

 **EACHI** | International Association for
Communication in Healthcare

References

- (1) Trzeciak, S. and A. Mazzairelli, *Compassionomics: The revolutionary scientific evidence that caring makes a difference*. 2019, Pensacola: Studer Group.
- (2) Dwamena, F., et al., *Interventions for providers to promote a patient-centred approach in clinical consultations*. Cochrane Database Syst Rev, 2012. **12**(1469-493X (Electronic)): p. CD003267.
- (3) Cushing, A. *Patient-centered Communication*. 24.01.2023]; Available from: <https://staging.each.international/wp-content/uploads/2021/06/Patient-centred-communication-1.pdf>.
- (4) Mead, N. and P. Bower, *Patient-centredness: a conceptual framework and review of the empirical literature*. Social science & medicine, 2000. **51**(7): p. 1087-1110.
- (5) Stewart, M.A., et al., *Patient-Centered Medicine. Transforming the Clinical Method*. Vol. 1st Ed. 1995, Thousand Oaks, London, New Delhi: Sage Publications.
- (6) Papageorgiou, A., *Models of the doctor-patient consultation*, in *Clinical Communication in Medicine*, J. Brown, et al., Editors. 2016, Wiley Blackwell. p. 21-29.
- (7) Saha, S., M.C. Beach, and L.A. Cooper, *Patient centeredness, cultural competence and healthcare quality*. J Natl Med Assoc, 2008. **100**(11): p. 1275-85.
- (8) Rathert, C., et al., *Patient-centered communication in the era of electronic health records: What does the evidence say?* Patient Educ Couns, 2017. **100**(1): p. 50-64.
- (9) Neumann, M., et al., *Empathy decline and its reasons: a systematic review of studies with medical students and residents*. Academic medicine, 2011. **86**(8): p. 996-1009.
- (10) Cowell, R.N., *The Hidden Curriculum: A Theoretical Framework and a Pilot Study*. 1972, Cambridge: Harvard Graduate School of Education.
- (11) The Schwartz Center for Compassionate Healthcare. National Survey Data Presented at the Compassion in Action Conference Show Mixed Reactions on State of Compassion in U.S. Healthcare. 2017 24.01.2023]; Available from: <https://www.theschwartzcenter.org/media/2019/05/Natl-Poll-and-Conf-Press-Release-Final.pdf>.
- (12) Cartaxo, A., I. Eberl, and H. Mayer, MISSCARE-AUSTRIA STUDIE (II): Pflegepersonalressourcen auf Allgemeinstationen in österreichischen Krankenhäusern und ihr Einfluss auf Missed Nursing Care. 2022.
- (13) HLS-EU Consortium, Comparative Report of Health Literacy in Eight EU Member States. The European Health Literacy Survey HLS-EU. 2012, The international Consortium of the HLS-EU Project.
- (14) Griebler, R., et al., Gesundheitskompetenz in Österreich: Ergebnisse der Österreichischen Gesundheitskompetenz-Erhebung HLS19-AT. 2021, Gesundheit Österreich: Wien.
- (15) Stahl, K. and M. Nadj-Kittler, Picker Report 2016: Vertrauen braucht gute Verständigung - Erfolgreiche Kommunikation mit Kindern, Eltern und erwachsenen Patienten. 2016, Picker Institut Deutschland gGmbH. p. 44.

- (16) Egbert, L.D., et al., Reduction of postoperative pain by encouragement and instruction of patients: a study of doctor-patient rapport. *New England Journal of Medicine*, 1964. 270(16): p. 825-827.
- (17) Pereira, L., M. Figueiredo-Braga, and I.P. Carvalho, Preoperative anxiety in ambulatory surgery: The impact of an empathic patient-centered approach on psychological and clinical outcomes. *Patient education and counseling*, 2016. 99(5): p. 733-738.
- (18) Temel, J.S., et al., Early palliative care for patients with metastatic non-small-cell lung cancer. *New England Journal of Medicine*, 2010. 363(8): p. 733-742.
- (19) Sarinopoulos, I., et al., Patient-centered interviewing is associated with decreased responses to painful stimuli: an initial fMRI study. *Patient education and counseling*, 2013. 90(2): p. 220-225.
- (20) Fuentes, J., et al., Enhanced therapeutic alliance modulates pain intensity and muscle pain sensitivity in patients with chronic low back pain: an experimental controlled study. *Physical therapy*, 2014. 94(4): p. 477-489.
- (21) Dibbelt, S., et al., Patient-doctor interaction in rehabilitation: The relationship between perceived interaction quality and long-term treatment results. *Patient education and counseling*, 2009. 76(3): p. 328-335.
- (22) Attar, H.S. and S. Chandramani, Impact of physician empathy on migraine disability and migraineur compliance. *Annals of Indian Academy of Neurology*, 2012. 15(1): p. 94.
- (23) Kaptchuk, T.J., et al., Components of placebo effect: randomised controlled trial in patients with irritable bowel syndrome. *Bmj*, 2008. 336(7651): p. 999-1003.
- (24) Ambady, N., et al., Physical therapists' nonverbal communication predicts geriatric patients' health outcomes. *Psychology and aging*, 2002. 17(3): p. 452.
- (25) Hojat, M., et al., Physicians' empathy and clinical outcomes for diabetic patients. *Academic Medicine*, 2011. 86(3): p. 359-364.
- (26) Del Canale, S., et al., The relationship between physician empathy and disease complications: an empirical study of primary care physicians and their diabetic patients in Parma, Italy. *Academic medicine*, 2012. 87(9): p. 1243-1249.
- (27) Rakel, D.P., et al., Practitioner empathy and the duration of the common cold. *Family medicine*, 2009. 41(7): p. 501.
- (28) Kelley, J.M., et al., The influence of the patient-clinician relationship on healthcare outcomes: a systematic review and meta-analysis of randomized controlled trials. *PloS one*, 2014. 9(4): p. e94207.
- (29) Graser, J. and U. Stangier, Compassion and loving-kindness meditation: an overview and prospects for the application in clinical samples. *Harvard Review of Psychiatry*, 2018. 26(4): p. 201-215.
- (30) Laithwaite, H., et al., Recovery after psychosis (RAP): A compassion focused programme for individuals residing in high security settings. *Behavioural and Cognitive Psychotherapy*, 2009. 37(5): p. 511-526.
- (31) Braehler, C., et al., Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, 2013. 52(2): p. 199-214.
- (32) Kelly, A.C., et al., Group-based compassion-focused therapy as an adjunct to outpatient treatment for eating disorders: A pilot randomized controlled trial. *Clinical psychology & psychotherapy*, 2017. 24(2): p. 475-487.

- (33) Au, T.M., et al., Compassion-based therapy for trauma-related shame and posttraumatic stress: Initial evaluation using a multiple baseline design. *Behavior Therapy*, 2017. 48(2): p. 207-221.
- (34) Beaumont, E., et al., Using compassion focused therapy as an adjunct to trauma-focused CBT for fire service personnel suffering with trauma-related symptoms. *The Cognitive Behaviour Therapist*, 2016. 9: p. e34.
- (35) Johnson, S.B., et al., Compassion-based meditation in African Americans: Self-criticism mediates changes in depression. *Suicide and Life-Threatening Behavior*, 2018. 48(2): p. 160-168.
- (36) Noorbala, F., et al., Effectiveness of compassionate mind training on depression, anxiety, and self-criticism in a group of Iranian depressed patients. *Iranian journal of psychiatry*, 2013. 8(3): p. 117.
- (37) Graser, J., et al., Effects of a 12-week mindfulness, compassion, and loving kindness program on chronic depression: A pilot within-subjects wait-list controlled trial. *Journal of Cognitive Psychotherapy*, 2016. 30(1): p. 35-49.
- (38) Gilbert, P. and S. Procter, Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, 2006. 13(6): p. 353-379.
- (39) Judge, L., et al., An exploration of group-based compassion focused therapy for a heterogeneous range of clients presenting to a community mental health team. *International Journal of Cognitive Therapy*, 2012. 5(4): p. 420-429.
- (40) Kirby, J.N., C.L. Tellegen, and S.R. Steindl, A meta-analysis of compassion-based interventions: Current state of knowledge and future directions. *Behavior Therapy*, 2017. 48(6): p. 778-792.
- (41) Hollinger-Samson, N. and J.L. Pearson, The relationship between staff empathy and depressive symptoms in nursing home residents. *Aging & Mental Health*, 2000. 4(1): p. 56-65.
- (42) Fogarty, L.A., et al., Can 40 seconds of compassion reduce patient anxiety? *Journal of clinical oncology*, 1999. 17(1): p. 379.
- (43) van Osch, M., et al., Reducing patients' anxiety and uncertainty, and improving recall in bad news consultations. *Health Psychology*, 2014. 33(11): p. 1390.
- (44) Sep, M.S., et al., The power of clinicians' affective communication: how reassurance about non-abandonment can reduce patients' physiological arousal and increase information recall in bad news consultations. An experimental study using analogue patients. *Patient education and counseling*, 2014. 95(1): p. 45-52.
- (45) Verheul, W., A. Sanders, and J. Bensing, The effects of physicians' affect-oriented communication style and raising expectations on analogue patients' anxiety, affect and expectancies. *Patient education and counseling*, 2010. 80(3): p. 300-306.
- (46) Roter, D.L., et al., Improving physicians' interviewing skills and reducing patients' emotional distress: a randomized clinical trial. *Archives of internal medicine*, 1995. 155(17): p. 1877-1884.
- (47) Mercer, S.W., et al., General practitioner empathy, patient enablement, and patient-reported outcomes in primary care in an area of high socio-economic deprivation in Scotland—a pilot prospective study using structural equation modeling. *Patient education and counseling*, 2008. 73(2): p. 240-245.

- (48) Zachariae, R., et al., Association of perceived physician communication style with patient satisfaction, distress, cancer-related self-efficacy, and perceived control over the disease. *British journal of cancer*, 2003. 88(5): p. 658-665.
- (49) Lelorain, S., et al., A systematic review of the associations between empathy measures and patient outcomes in cancer care. *Psycho-Oncology*, 2012. 21(12): p. 1255-1264.
- (50) Roberts, C.S., et al., Influence of physician communication on newly diagnosed breast patients' psychologic adjustment and decision-making. *Cancer*, 1994. 74(1): p. 336-341.
- (51) Mager, W.M. and M.A. Andrykowski, Communication in the cancer 'bad news' consultation: patient perceptions and psychological adjustment. *Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer*, 2002. 11(1): p. 35-46.
- (52) Shanafelt, T.D., et al., The physician-patient relationship and quality of life: Lessons from chronic lymphocytic leukemia. *Leukemia research*, 2009. 33(2): p. 263-270.
- (53) Ong, L.M., et al., Doctor-patient communication and cancer patients' quality of life and satisfaction. *Patient education and counseling*, 2000. 41(2): p. 145-156.
- (54) Neumann, M., et al., Determinants and patient-reported long-term outcomes of physician empathy in oncology: a structural equation modelling approach. *Patient education and counseling*, 2007. 69(1-3): p. 63-75.
- (55) Viswanathan, M., et al., Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Annals of internal medicine*, 2012. 157(11): p. 785-795.
- (56) Zolnierak, K.B.H. and M.R. DiMatteo, Physician communication and patient adherence to treatment: a meta-analysis. *Medical care*, 2009. 47(8): p. 834.
- (57) Beach, M.C., J. Keruly, and R.D. Moore, Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV? *Journal of general internal medicine*, 2006. 21(6): p. 661-665.
- (58) Kim, S.S., S. Kaplowitz, and M.V. Johnston, The effects of physician empathy on patient satisfaction and compliance. *Evaluation & the health of professions*, 2004. 27(3): p. 237-251.
- (59) Francis, V., B.M. Korsch, and M.J. Morris, Gaps in doctor-patient communication: Patients' response to medical advice. *New England Journal of Medicine*, 1969. 280(10): p. 535-540.
- (60) Kerse, N., et al., Physician-patient relationship and medication compliance: a primary care investigation. *The Annals of Family Medicine*, 2004. 2(5): p. 455-461.
- (61) Mahmoudian, A., et al., Medication adherence in patients with hypertension: Does satisfaction with doctor-patient relationship work? *Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences*, 2017. 22: p. 48.
- (62) Ratanawongsa, N., et al., Communication and medication refill adherence: the Diabetes Study of Northern California. *JAMA internal medicine*, 2013. 173(3): p. 210-218.
- (63) Kahn, K.L., et al., Patient centered experiences in breast cancer: predicting long-term adherence to tamoxifen use. *Medical care*, 2007. 45(5): p. 431-439.
- (64) O'Malley, A.S., C.B. Forrest, and J. Mandelblatt, Adherence of low-income women to cancer screening recommendations. *Journal of general internal medicine*, 2002. 17(2): p. 144-154.

- (65) Flickinger, T.E., et al., Clinician empathy is associated with differences in patient–clinician communication behaviors and higher medication self-efficacy in HIV care. *Patient education and counseling*, 2016. 99(2): p. 220-226.
- (66) Slepian, M.L. and J.N. Kirby, To Whom Do We Confide Our Secrets? *Pers Soc Psychol Bull*, 2018. 44(7): p. 1008-1023.
- (67) Kaplan, J.E., et al., Aspects of patient and clinician language predict adherence to antidepressant medication. *The Journal of the American Board of Family Medicine*, 2013. 26(4): p. 409-420.
- (68) Heszen-Klemens, I. and E. Lapińska, Doctor-patient interaction, patients' health behavior and effects of treatment. *Social science & medicine*, 1984. 19(1): p. 9-18.
- (69) Fuertes, J.N., L.S. Boylan, and J.A. Fontanella, Behavioral indices in medical care outcome: the working alliance, adherence, and related factors. *Journal of general internal medicine*, 2009. 24(1): p. 80-85.
- (70) Shanafelt, T.D., et al., Burnout and self-reported patient care in an internal medicine residency program. *Annals of internal medicine*, 2002. 136(5): p. 358-367.
- (71) Shanafelt, T.D., et al., Burnout and medical errors among American surgeons. *Annals of surgery*, 2010. 251(6): p. 995-1000.
- (72) Dasan, S., et al., Prevalence, causes and consequences of compassion satisfaction and compassion fatigue in emergency care: a mixed-methods study of UK NHS Consultants. *Emergency Medicine Journal*, 2015. 32(8): p. 588-594.
- (73) West, C.P., et al., Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *Jama*, 2006. 296(9): p. 1071-1078.
- (74) McClelland, L.E. and T.J. Vogus, Compassion practices and HCAHPS: does rewarding and supporting workplace compassion influence patient perceptions? *Health services research*, 2014. 49(5): p. 1670-1683.
- (75) Wen, L. and S. Tucker, What do people want from their health care. A qualitative study. *Journal of Participat Medicine*, 2015. 7(10): p. e10.
- (76) Healthgrades, Patient sentiment report: an analysis of 7 million physician reviews 2018. 2018: www.healthgrades.com/content/patient-sentiment-report.
- (77) Menendez, M.E., et al., Physician empathy as a driver of hand surgery patient satisfaction. *The Journal of hand surgery*, 2015. 40(9): p. 1860-1865 e2.
- (78) Hojat, M., et al., A brief instrument to measure patients' overall satisfaction with primary care physicians. *Family Medicine-Kansas City*, 2011. 43(6): p. 417.
- (79) businesswire. Survey Reveals 85% Percent of Patients Choose Compassion Over Pricing When Choosing a Doctor. 2022 [17.01.2023].
- (80) Ogle, J., J.A. Bushnell, and P. Caputi, Empathy is related to clinical competence in medical care. *Medical education*, 2013. 47(8): p. 824-831.
- (81) Kraft-Todd, G.T., et al., Empathic nonverbal behavior increases ratings of both warmth and competence in a medical context. *PloS one*, 2017. 12(5): p. e0177758.
- (82) Comstock, L.M., et al., Physician behaviors that correlate with patient satisfaction. *J Med Educ*, 1982. 57(2): p. 105-12.
- (83) Trzeciak, S., et al., Association between Medicare star ratings for patient experience and Medicare spending per beneficiary for US hospitals. *Journal of patient experience*, 2017. 4(1): p. 17-21.
- (84) Slawson, P., Psychiatric malpractice: some aspects of cause. *The Psychiatric Hospital*, 1984. 15(3): p. 141-144.
- (85) Lieberman, J.K., *The Litigious Society*. 1985, New York: Basic Books.
- (86) Friedman, L.M., *Total justice*. 1985, New York: Russell Sage.
- (87) Eisenberg, H., New light on the costliest malpractice mistakes. *Journal of Medical Economics*, 1973. 16: p. 146-150.

- (88) Hicks, R., Ounces of prevention. I. New York state journal of medicine, 1973. 73(18): p. 2268-2269.
- (89) Vincent, C., A. Phillips, and M. Young, Why do people sue doctors? A study of patients and relatives taking legal action. The Lancet, 1994. 343(8913): p. 1609-1613.
- (90) Beckmann, H., et al., The doctor-patient relationship and malpractice — lessons from plaintiff deposition. Archives of Internal Medicine, 1994. 154(12): p. 1365-70.
- (91) Hickson, G.B., et al., Obstetricians' prior malpractice experience and patients' satisfaction with care. Jama, 1994. 272(20): p. 1583-1587.
- (92) Andel, C., et al., The economics of health care quality and medical errors. Journal of health care finance, 2012. 39(1): p. 50.
- (93) Bertakis, K.D. and R. Azari, Patient-centered care is associated with decreased health care utilization. The Journal of the American Board of Family Medicine, 2011. 24(3): p. 229-239.
- (94) Epstein, R.M., et al., Patient-centered communication and diagnostic testing. The Annals of Family Medicine, 2005. 3(5): p. 415-421.
- (95) Little, P., et al., Observational study of effect of patient centredness and positive approach on outcomes of general practice consultations. Bmj, 2001. 323(7318): p. 908-911.
- (96) Stewart, M., et al., The impact of patient-centered care on outcomes. Journal of Family Practice, 2000. 49(9): p. 796-804.
- (97) Brody, J.E., The cost of not taking your medicine. 2017: The New York Times, April 17, 2017.
- (98) Hajek, P., A. Siegl, and N. Dziendziel. Arbeitszufriedenheit von angestellten ÄrztInnen in Wien. 2023 24.01.2023]; Available from: https://www.aekwien.at/documents/263869/272591/Pr%C3%A4sentation_Arbeitszufriedenheit+Angestellte+%C3%84rztInnen_PK+10.Jan23.pdf/4cd15908-cd7e-6c26-45c7-f727c9d8995a?t=1673344537330.
- (99) Gleichgerrcht, E. and J. Decety, Empathy in clinical practice: how individual dispositions, gender, and experience moderate empathic concern, burnout, and emotional distress in physicians. PloS one, 2013. 8(4): p. e61526.
- (100) American Medical Association. Creating the Organizational Foundation for Joy in Medicine. 2023 17.01.2023]; Available from: <https://edhub.ama-assn.org/steps-forward/module/2702510>.
- (101) Shanafelt, T., J. Goh, and C. Sinsky, The business case for investing in physician well-being. JAMA internal medicine, 2017. 177(12): p. 1826-1832.
- (102) Shanafelt, T.D., et al. Longitudinal study evaluating the association between physician burnout and changes in professional work effort. in Mayo Clinic Proceedings. 2016. Elsevier.
- (103) Stürzlinger, H., R. Pentz, and I. Soede, Kosteneffektivität von Kommunikationstrainings für Gesundheitspersonal. Rapid Review zu ökonomischen Evaluationen. 2022, Gesundheit Österreich: Wien.
- (104) Riess, H., et al., Empathy training for resident physicians: a randomized controlled trial of a neuroscience-informed curriculum. Journal of general internal medicine, 2012. 27(10): p. 1280-1286.
- (105) Weiss, R., et al., Associations of physician empathy with patient anxiety and ratings of communication in hospital admission encounters. Journal of hospital medicine, 2017. 12(10): p. 805-810.

- (106) Bylund, C.L. and G. Makoul, Examining empathy in medical encounters: an observational study using the empathic communication coding system. *Health communication*, 2005. 18(2): p. 123-140.
- (107) Dempsey, C., *The Antidote to Suffering: How Compassionate Connected Care Can Improve Safety, Quality, and Experience*. 2017, New York: McCraw-Hill Education.
- (108) Wilkinson, H., et al., Examining the relationship between burnout and empathy in healthcare professionals: A systematic review. *Burnout research*, 2017. 6: p. 18-29.
- (109) Kim, K., To feel or not to feel: empathy and physician burnout. *Academic Psychiatry*, 2018. 42(1): p. 157-158.
- (110) Thirioux, B., F. Birault, and N. Jaafari, Empathy is a protective factor of burnout in physicians: new neuro-phenomenological hypotheses regarding empathy and sympathy in care relationship. *Frontiers in psychology*, 2016. 7: p. 763.
- (111) Klimecki, O.M., et al., Differential pattern of functional brain plasticity after compassion and empathy training. *Social cognitive and affective neuroscience*, 2014. 9(6): p. 873-879.
- (112) Cosley, B.J., et al., Is compassion for others stress buffering? Consequences of compassion and social support for physiological reactivity to stress. *Journal of Experimental Social Psychology*, 2010. 46(5): p. 816-823.
- (113) Pace, T.W., et al., Effect of compassion meditation on neuroendocrine, innate immune and behavioral responses to psychosocial stress. *Psychoneuroendocrinology*, 2009. 34(1): p. 87-98.
- (114) Engen, H.G. and T. Singer, Compassion-based emotion regulation up-regulates experienced positive affect and associated neural networks. *Social cognitive and affective neuroscience*, 2015. 10(9): p. 1291-1301.
- (115) Jazaieri, H., et al., Altering the trajectory of affect and affect regulation: The impact of compassion training. *Mindfulness*, 2018. 9(1): p. 283-293.
- (116) Jazaieri, H., et al., A randomized controlled trial of compassion cultivation training: Effects on mindfulness, affect, and emotion regulation. *Motivation and emotion*, 2014. 38(1): p. 23-35.
- (117) Weng, H.Y., et al., Visual attention to suffering after compassion training is associated with decreased amygdala responses. *Frontiers in psychology*, 2018. 9: p. 771.
- (118) Mongrain, M., J.M. Chin, and L.B. Shapira, Practicing compassion increases happiness and self-esteem. *Journal of Happiness Studies*, 2011. 12(6): p. 963-981.
- (119) James Kirby. Homepage. 2022 17.01.2023]; Available from: <http://jameskirby.com.au/>.
- (120) Tei, S., et al., Can we predict burnout severity from empathy-related brain activity? *Translational psychiatry*, 2014. 4(6): p. e393-e393.
- (121) Shanafelt, T.D., et al., Relationship between increased personal well-being and enhanced empathy among. *Journal of general internal medicine*, 2005. 20(7): p. 559-564.
- (122) Brazeau, C.M., et al., Relationships between medical student burnout, empathy, and professionalism climate. *Academic Medicine*, 2010. 85(10): p. S33-S36.
- (123) Hojat, M., et al., Underlying construct of empathy, optimism, and burnout in medical students. *International journal of medical education*, 2015. 6: p. 16.
- (124) Rosen, I.M., et al., Evolution of sleep quantity, sleep deprivation, mood disturbances, empathy, and burnout among interns. *Academic medicine*, 2006. 81(1): p. 82-85.
- (125) Mascaró, J.S., et al., Meditation buffers medical student compassion from the deleterious effects of depression. *The Journal of Positive Psychology*, 2018. 13(2): p. 133-142.

- (126) Zenasni, F., et al., Development of a French-language version of the Jefferson Scale of Physician Empathy and association with practice characteristics and burnout in a sample of general practitioners. *International Journal of Person Centered Medicine*, 2012. 2(4): p. 759-766.
- (127) Chen, K.-Y., et al., Burnout, job satisfaction, and medical malpractice among physicians. *International journal of medical sciences*, 2013. 10(11): p. 1471-1478.
- (128) Lamothe, M., et al., To be or not to be empathic: the combined role of empathic concern and perspective taking in understanding burnout in general practice. *BMC family practice*, 2014. 15(1): p. 15.
- (129) Krasner, M.S., et al., Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Jama*, 2009. 302(12): p. 1284-1293.
- (130) Weng, H.C., et al., Associations between emotional intelligence and doctor burnout, job satisfaction and patient satisfaction. *Medical education*, 2011. 45(8): p. 835-842.
- (131) Derksen, F., et al., Empathy: what does it mean for GPs? A qualitative study. *Family practice*, 2015. 32(1): p. 94-100.
- (132) Bourgault, P., et al., Relationship between empathy and well-being among emergency nurses. *Journal of Emergency Nursing*, 2015. 41(4): p. 323-328.
- (133) BMGF, Verbesserung der Gesprächsqualität in der Krankenversorgung. Strategie zur Etablierung einer patientenzentrierten Kommunikationskultur. Bundesministerium für Gesundheit und Frauen, Wien, Bundesministerium für Gesundheit und Frauen, Editor. 2016: Wien.
- (134) Härtl, A., et al., Desire and reality - teaching and assessing communicative competencies in undergraduate medical education in German-speaking Europe - a survey. *GMS Zeitschrift für medizinische Ausbildung*, 2015. 32(5): p. Doc56.
- (135) Hempel, L., et al., Special issue on teaching social and communicative competences - status quo. *GMS J Med Educ*, 2021. 38(3): p. Doc72; doi: 10.3205/zma001468.
- (136) Rosenbaum, M.E., Dis-integration of communication in healthcare education: Workplace learning challenges and opportunities. *Patient Education and Counseling*, 2017. 100(11): p. 2054-2061.
- (137) Davis, D.A., et al., Accuracy of physician self-assessment compared with observed measures of competence: a systematic review. *JAMA*, 2006. 296(9): p. 1094-102.
- (138) Marinopoulos, S.S. and M.H. Baumann, Methods and Definition of Terms: Effectiveness of Continuing Medical Education: American College of Chest Physicians Evidence-Based Educational Guidelines. *CHEST*, 2009. 135(3): p. 17-28.
- (139) Davis, D., et al., The science of continuing medical education: terms, tools, and gaps: effectiveness of continuing medical education: American College of Chest Physicians Evidence-Based Educational Guidelines. *Chest*, 2009. 135(3 Suppl): p. 8-16.
- (140) Kurtz, S., J. Silverman, and J. Draper, Teaching and learning communication skills in medicine. 2006, Oxford: Radcliffe. XIV, 369 S.
- (141) Rosenbaum, M.E. and J.D. Silverman, Training for Effective Communication in Healthcare Settings. *The Oxford Handbook of Health Communication, Behavior Change, and Treatment Adherence*, 2013: p. 109.
- (142) Silverman, J., S.M. Kurtz, and J. Draper, Skills for communicating with patients. 2013, London: Radcliffe. xviii, 305 p. ; 25 cm.
- (143) Ammentorp, J., et al., Upscaling communication skills training – lessons learned from international initiatives. *Patient Education and Counseling*, 2021. 104: p. 352-359.
- (144) Sator, M., P. Holler, and M. Rosenbaum, National train-the-trainer certificate programme for improving healthcare communication in Austria. *Patient Educ Couns*, 2021. 104(12): p. 2857-2866.
- (145) BMSGPK (2023): Sektorenübergreifende Patientenbefragung. Ergebnisbericht 2022. Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz, Wien
- (146) Sator M, Nowak P, Menz F. Verbesserung der Gesprächsqualität in der Krankenversorgung. Kurzbericht auf Basis der Grundlagenarbeiten für das Bundesministerium für Gesundheit und den Hauptverband der österreichischen Sozialversicherungsträger. Wien: Gesundheit Österreich GmbH, 2015.
- (147) WHO, Adherence to long-term therapies: evidence for action. 2003, World Health Organization: Geneva.
- (148) Sürth/Soffried 2023a
- (149) Sürth/Soffried 2023b

- (150) Pegg Jr, P. O., Auerbach, S. M., Seel, R. T., Buenaver, L. F., Kiesler, D. J., & Plybon, L. E. (2005). The Impact of Patient-Centered Information on Patients' Treatment Satisfaction and Outcomes in Traumatic Brain Injury Rehabilitation. *Rehabilitation Psychology, 50*(4), 366.
- (151) Yun, D., & Choi, J. (2019). Person-centered rehabilitation care and outcomes: a systematic literature review. *International journal of nursing studies, 93*, 74-83.
- (152) Guidetti, S., Gustavsson, M., Tham, K., Andersson, M., Fors, U., & Ytterberg, C. (2020). F@ ce: a team-based, person-centred intervention for rehabilitation after stroke supported by information and communication technology—a feasibility study. *BMC neurology, 20*(1), 1-12.
- (153) Dibbelt, S., Schaidhammer, M., Fleischer, C., & Greitemann, B. (2009). Patient–doctor interaction in rehabilitation: The relationship between perceived interaction quality and long-term treatment results. *Patient education and counseling, 76*(3), 328-335.
- (154) Farin, E., Gramm, L., & Schmidt, E. (2013). The patient–physician relationship in patients with chronic low back pain as a predictor of outcomes after rehabilitation. *Journal of behavioral medicine, 36*, 246-258.
- (155) Hall, A. M., Ferreira, P. H., Maher, C. G., Latimer, J., & Ferreira, M. L. (2010). The influence of the therapist-patient relationship on treatment outcome in physical rehabilitation: a systematic review. *Physical therapy, 90*(8), 1099-1110.
- (156) Henry, S. G., Fuhrel-Forbis, A., Rogers, M. A., & Eggly, S. (2012). Association between nonverbal communication during clinical interactions and outcomes: a systematic review and meta-analysis. *Patient education and counseling, 86*(3), 297-315.
- (157) Oliveira, V. C., Refshauge, K. M., Ferreira, M. L., Pinto, R. Z., Beckenkamp, P. R., Negrao Filho, R. F., & Ferreira, P. H. (2012). Communication that values patient autonomy is associated with satisfaction with care: a systematic review. *Journal of Physiotherapy, 58*(4), 215-229.
- (158) Dibbelt, S., Schaidhammer, M., Fleischer, C., & Greitemann, B. (2009). Patient–doctor interaction in rehabilitation: The relationship between perceived interaction quality and long-term treatment results. *Patient education and counseling, 76*(3), 328-335.
- (159) Lonsdale, C., Hall, A. M., Murray, A., Williams, G. C., McDonough, S. M., Ntoumanis, N., ... & Hurley, D. A. (2017). Communication skills training for practitioners to increase patient adherence to home-based rehabilitation for chronic low back pain: results of a cluster randomized controlled trial. *Archives of physical medicine and rehabilitation, 98*(9), 1732-1743.
- (160) Sliwa, J. A., Makoul, G., & Betts, H. (2002). Rehabilitation-specific communication skills training: improving the physician-patient relationship. *American journal of physical medicine & rehabilitation, 81*(2), 126-132.
- (161) Franz, S., Muser, J., Thielhorn, U., Wallesch, C. W., & Behrens, J. (2020). Inter-professional communication and interaction in the neurological rehabilitation team: a literature review. *Disability and rehabilitation, 42*(11), 1607-1615.
- (162) Pinto, R. Z., Ferreira, M. L., Oliveira, V. C., Franco, M. R., Adams, R., Maher, C. G., & Ferreira, P. H. (2012). Patient-centred communication is associated with positive therapeutic alliance: a systematic review. *Journal of physiotherapy, 58*(2), 77-87.
- (163) Heard, R., O'Halloran, R., & McKinley, K. (2017). Communication partner training for health care professionals in an inpatient rehabilitation setting: A parallel randomised trial. *International Journal of Speech-Language Pathology, 19*(3), 277-286.
- (164) Rhezaii, S., Hosseini, A. M., & Fallahi, M. (2006). Evaluating impact of communication skills training on level of job stress among nursing personnel working at rehabilitation centers in cities: Ray-Tehran-Shemiranat. *Tehran University Medical Journal TUMS Publications, 64*(1), 21-26.
- (165) Franz, S., Muser, J., Thielhorn, U., Wallesch, C. W., & Behrens, J. (2020). Inter-professional communication and interaction in the neurological rehabilitation team: a literature review. *Disability and rehabilitation, 42*(11), 1607-1615.
- (166) Street Jr., R.L., Makoul, G., Arora, N.K., Epstein, R. (2009). How does communication heal? Pathways linking clinician–patient communication to health outcomes. *Patient Education and Counseling, 74*, 295–301.