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**FORSCHEN
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Diagnostik und Therapie früher und fortgeschrittener Mammakarzinome

Gesundheitskompetenz und Kommunikation



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Gesundheitskompetenz

- **Versionen 2020-2024:**
Albert / Bauerfeind / Ditsch / Maass / Rhiem / Schmidt / Schütz
- **Version 2025:**
Friedrich / Heil

Beratende Patientenvertreter der AGO-Patienten-Taskforce:

R. Haidinger, Brustkrebs Deutschland e.V.

B. Welter, mamazone e.V.



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Gesundheitskompetenz

Definition

„Gesundheitskompetenz umfasst das Wissen sowie die Motivation und die Fähigkeiten von Menschen, Gesundheitsinformationen zu finden, zu verstehen, zu beurteilen und anzuwenden, um im Alltag in gesundheitsrelevanten Bereichen Entscheidungen treffen zu können.“

Sørensen et al., (2012)

1. Sørensen K, Van den Broucke S, Fullam J, et al. Health literacy and public health: A systematic review and integration of definitions and models. BMC Public Health. 2012, 12:80



Digital Health Literacy

Definition

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Digital health literacy is the ability to search for, find, understand and evaluate health-related information in relation to digital applications and digital information services and to apply the acquired knowledge to solve a health problem.

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1. Leitlinienprogramm Onkologie (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF): Psychoonkologische Diagnostik, Beratung und Behandlung von erwachsenen Krebspatient*innen, Langversion 2.1, 2023, AWMF-Registernummer: 032-051OL <https://www.leitlinienprogramm-onkologie.de/leitlinien/psychoonkologie/>; Zugriff am [03.01.2024]

Gesundheitskompetenz

Patient*innenzentrierte Kommunikation

Ziel der Arzt/Ärztinnen-Patientinnen/Patienten-Kommunikation: Ermöglichung der „eigen verantworteten“ Entscheidung auf der Basis einer ausreichenden Gesundheitskompetenz (Shared Decision Making)

Oxford

LoE	AGO
3a	+

Ein zentrales Mittel zum Erwerb der Gesundheitskompetenz stellt die Arzt/Ärztinnen-Patientinnen/Patienten-Kommunikation dar. Sie ist die Basis für eine gelungene onkologische Behandlung und Begleitung.

- **Nicht-direktive** Kommunikation – d. h. die Ratsuchenden haben das Recht, ihre Lebensziele selbst zu wählen, selbst wenn diese nach wohlbegründeter Abwägung allgemein anerkannten, auch evidenzbasierten Empfehlungen widersprechen.
- **Verständliche** Kommunikation – d. h. an den Wissensstand, die Rezeptionsgewohnheiten, die Kompetenzvoraussetzungen und die Präferenzen der Patientinnen / Patienten ausgerichtet.

1. Søndergaard SM, The impact of shared decision making on time consumption and clinical decisions. A prospective cohort study. Patient Education and Counseling, Volume 104, 2021.
2. Maes-Carballo M, Shared decision making in breast cancer screening guidelines: a systematic review of their quality and reporting. European Journal of Public Health, Volume 31, August 2021.
3. Pfob A, Towards Patient-Centered Decision-Making in Breast Cancer Surgery - Machine Learning to Predict Individual Patient-Reported Outcomes at 1-Year Follow-up. Annals of Surgery, March 18, 2021.
4. V, Mühlbauer, Berger-Höger B, Albrecht M, Mühlhauser I, and Steckelberg A. "Communicating Prognosis to Women with Early Breast Cancer - Overview of Prediction Tools and the Development and Pilot Testing of a Decision Aid." [In eng]. BMC health services research 19, no. 1 (2019-3-15 2019): 171. <https://doi.org/doi:> <https://pubmed.ncbi.nlm.nih.gov/30876414/>.
5. Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG) HTA-Bericht Behandlungsgespräche: Führt eine gemeinsame Entscheidungsfindung von Arzt und Patient bei der Therapiewahl zu besseren Ergebnissen? Projekt: HT22-01 Version: 1.0 Stand: 04.09.2023 https://www.iqwig.de/presse/pressemitteilungen/pressemitteilungen-detailseite_100418.html Abruf 03012024



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Health Literacy

Basic Principles of Patient-centered Communication

- **Communicate information truthfully and empathetically**
- **Impart medical evidence-based knowledge in lay language**
- **Critical debate of pseudo-scientific recommendations**
- **Active listening**
- **Showing empathy**
- **actively listening and expressing empathy**
- **Find out if and how the patient wants to be informed about his / her situation**
- **use understandable language avoiding or explaining technical terms**
- **Continuously improve understanding through e.g. repetitions, breaks, summary, comprehensible information material**
- **Encourage asking questions and expressing feelings**
- **Identifying individual stresses, problems and needs**
- **Motivating self-determination and personal activities ("empowerment")**
- **Giving hope for healing and relief**
- **Offer further assistance (e.g. psycho-oncology, self-help)**

1. Leitlinienprogramm Onkologie (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF): Psychoonkologische Diagnostik, Beratung und Behandlung von erwachsenen Krebspatient*innen, Langversion 2.1, 2023, AWMF-Registernummer: 032-051OL <https://www.leitlinienprogramm-onkologie.de/leitlinien/psychoonkologie/>; Zugriff am [03.01.2024]

Gesundheitskompetenz

Kommunikation

Eine nicht-direktive und evidenzbasierte Arzt/Ärztinnen-Patientinnen/Patienten-Kommunikation, die sich an den aktuellen Bedürfnissen, Werten, Problemen, Ressourcen und Präferenzen der Patientinnen/Patienten orientiert, hat günstige Auswirkungen:

	Oxford
	LoE
▪ Reduktion von Ängsten	2b
▪ Erhöhtes Vertrauen zum behandelnden Onkologen	2b
▪ Erhöhte Zufriedenheit von Patientinnen und Patienten	2a
▪ Verbesserte Therapieadhärenz	2a
▪ Verbesserte Entscheidungsfindung	2a
▪ Reduktion von psychischen Beschwerden	2a

1. Littell RD, Kumar A, Einstein MH, et al.: Advanced communication: A critical component of high quality gynecologic cancer care: A Society of Gynecologic Oncology evidence based review and guide. Gynecol Oncol. 2019;155(1):161–169. doi:10.1016/j.ygyno.2019.07.026

Angst, Vertrauen

1. Zwingmann J, Baile WF, Schmier JW, et al. Effects of patient-centered communication on anxiety, negative affect, and trust in physician in delivering a cancer diagnosis: A randomized, experimental study. Cancer 2017;123:3167-3175.
2. Elsner, K., Naehrig, D., Halkett, G., & Dhillon, H. M. (2017). Reduced patient anxiety as a result of radiation therapist-led psychosocial support: a systematic review. Journal of medical radiation sciences, 64(3), 220–231. doi:10.1002/jmrs.208
3. Curtis J, Back A, Ford D, et al. Effect of communication skills training for residents and nurse practitioners on quality of communication with patients with serious illness: a randomized trial. JAMA.2013;310:2271-2281
4. O. Husson, F. Mols, L.V. van de Poll-Franse The relation between information provision and health-related quality of life, anxiety and depression among cancer survivors: a systematic review Ann Oncol, 22 (2011), pp. 761-772
5. Tulskey, J.A., et al., Enhancing communication between oncologists and patients with a computer-based training program: a

randomized trial. *Ann Intern Med*, 2011. 155(9): p. 593-601.

Patientenzufriedenheit

1. A. Boissy, A.K. Windover, D. Bokar, M. et al. Communication skills training for physicians improves patient satisfaction. *J. Gen. Intern. Med.*, 31 (7) (2016), pp. 755-761
2. Venetis MK, Robinson JD, Turkiewicz KL, Allen M. An evidence base for patient-centered cancer care: a meta-analysis of studies of observed communication between cancer specialists and their patients. *Patient Educ Couns.* Dezember 2009;77(3):379–83.
3. J.B. Mallinger, J.J. Griggs, C.G. Shields. Patient-centered care and breast cancer survivors' satisfaction with information. *Patient Educ Couns.* 57 (2005), pp. 342-349
4. Zachariae R, Pedersen CG, Jensen AB, et al.: Association of perceived physician communication style with patient satisfaction, distress, cancer-related self-efficacy, and perceived control over the disease. *Br J Cancer.* 2003;88:658–65 (personal contact, medical aspects)
5. Arora, N.K., Interacting with cancer patients: the significance of physicians' communication behavior. *Soc Sci Med*, 2003. 57(5): p. 791-806.

Adhärenz

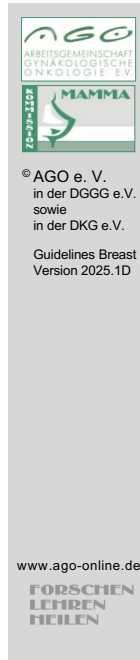
1. Miller TA. Health literacy and adherence to medical treatment in chronic and acute illness: A meta-analysis. *Patient Educ Couns.* 2016;99(7):1079–1086. doi:10.1016/j.pec.2016.01.020
2. Zolnierok, K.B. and M.R. Dimatteo, Physician communication and patient adherence to treatment: a meta-analysis. *Med Care*, 2009. 47(8): p. 826-34.
3. Kahn, K.L., et al., Patient centered experiences in breast cancer: predicting long-term adherence to tamoxifen use. *Med Care*, 2007. 45(5): p. 431-9.

Entscheidungsfindung

1. Edwards AG, Naik G, Ahmed H, et al. Personalised risk communication for informed decision making about taking screening tests. Cochrane Database Syst Rev. 2013;2013(2):CD001865. Published 2013 Feb 28. doi:10.1002/14651858.CD001865.pub3

Kommunikationsprobleme

1. Nicolaije KA, Husson O, Ezendam NP, et al. Endometrial cancer survivors are unsatisfied with received information about diagnosis, treatment and follow-up: a study from the population-based PROFILES registry. Patient Educ Couns. 2012;88(3):427–435. doi:10.1016/j.pec.2012.05.002



Gesundheitskompetenz

Kommunikationstraining

	Oxford	
	LoE	AGO
Die Teilnahme an qualifizierten Trainingsmaßnahmen können zur Förderung kommunikativer Kompetenzen beitragen.		+
Kommunikationstraining von Ärzt:innen kann u. a.		
▪ das Einfühlungsvermögen verbessern	2a	
▪ die Kommunikationskompetenzen erweitern	2a	
▪ die Zufriedenheit von Patientinnen und Patienten erhöhen	2b	
▪ die Informationsübermittlung verbessern	2b	

Förderung kommunikativer Kompetenzen

1. Barth J, Lannen P. Efficacy of communication skills training courses in oncology: a systematic review and meta-analysis. *Ann Oncol.* 2011;22(5):1030–1040. doi:10.1093/annonc/mdq441
2. Bos-van den Hoek DW, Visser LNC, Brown RF, Smets EMA, Henselmans I. Communication skills training for healthcare professionals in oncology over the past decade: a systematic review of reviews. *Curr Opin Support Palliat Care.* 2019;13(1):33-45. doi:10.1097/SPC.0000000000000409

Patientenzufriedenheit

1. Uitterhoeve, R.J., et al., The effect of communication skills training on patient outcomes in cancer care: a systematic review of the literature. *Eur J Cancer Care (Engl)*, 2010. 19(4): p. 442-57.

Einfühlungsvermögen

1. Moore PM, Rivera S, Bravo-Soto GA, Olivares C, Lawrie TA. Communication skills training for healthcare professionals working

with people who have cancer. Cochrane Database Syst Rev. 2018;7(7):CD003751. Published 2018 Jul 24.
doi:10.1002/14651858.CD003751.pub4

Training, coaching, OPL

1. A. Boissy, A.K. Windover, D. Bokar, M. et al. Communication skills training for physicians improves patient satisfaction. J. Gen. Intern. Med., 31 (7) (2016), pp. 755-761

Gesundheitskompetenz

Shared Decision Making – partizipative Entscheidungsfindung

	Oxford		
	LoE	GR	AGO
<ul style="list-style-type: none"> ▪ Patientinnen / Patienten wünschen frühzeitig und aktiv in Entscheidungen einbezogen zu werden, offene Gespräche zu Prognose, Behandlungsoptionen und Lebensqualität 	1b	A	
<ul style="list-style-type: none"> ▪ Ärztinnen / Ärzte sollen Patientinnen / Patienten motivieren, Fragen zu stellen, Klärung zu verlangen, Emotionen auszudrücken, Meinungen und Präferenzen zu äußern 	3b	C	+
<ul style="list-style-type: none"> ▪ Aktive Einbeziehung von Betreuungs-/Vertrauenspersonen (“caregivers”) 	4	C	+

Definition

1. Beauchamp, T.L. and J.F. Childress, Principles of biomedical ethics. 2001: Oxford University Press, USA.
2. Sieber, W.J. and R.M. Kaplan, Informed adherence: the need for shared medical decision making. Control Clin Trials, 2000. 21(5 Suppl): p. 233s-40s.
3. Weinstein, J.N., Editorial: The missing piece: Embracing shared decision making to reform health care. 2000, LWW.

Prognose, Behandlung, QoL

1. Hagerty RG, Butow PN, Ellis PM, Dimitry S, Tattersall MH. Communicating prognosis in cancer care: a systematic review of the literature. Ann Oncol. 2005; 16(7):1005–1053. [PubMed: 15939716]
2. Hagerty RG, Butow PN, Ellis PM, et al. Communicating with realism and hope: incurable cancer patients’ views on the disclosure of prognosis. J Clin Oncol. 2005; 23(6):1278–1288. [PubMed: 15718326]
3. Wright AA, Zhang B, Ray A, et al. Associations between end-of-life discussions, patient mental health, medical care near death, and caregiver bereavement adjustment. JAMA. 2008; 300(14):1665–1673. [PubMed: 18840840]

4. A Vodermaier 1, C Caspari, J Koehm, S Kahlert, N Ditsch, M Untch: Contextual factors in shared decision making: a randomised controlled trial in women with a strong suspicion of breast cancer. *Randomized Controlled Trial Br J Cancer*. 2009 Feb 24;100(4):590-7. doi: 10.1038/sj.bjc.6604916. Epub 2009 Feb 10.
5. Oprea N, Ardito V, Ciani O: Implementing shared decision-making interventions in breast cancer clinical practice: a scoping review. *BMC Med Inform Decis Mak*. 2023 Aug 23;23(1):164. doi: 10.1186/s12911-023-02263-8.

Zögern etc.

1. Frosch DL, May SG, Rendle KA, et al.: Authoritarian physicians and patients' fear of being labeled "difficult" among key obstacles to shared decision making. *Health Aff (Millwood)*. 2012; 31(5):1030–1038. [PubMed: 22566443]

Betreuungs-Vertrauenspersonen:

1. Cincidda C, Pizzoli SFM, Ongaro G, Oliveri S, Pravettoni G. Caregiving and Shared Decision Making in Breast and Prostate Cancer Patients: A Systematic Review. *Curr Oncol*. 2023 Jan 6;30(1):803-823. doi: 10.3390/curroncol30010061.
2. Recommendation ABC7, Lisbon, Portugal, Nov 2023



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Decision Aids

Decision aids address

- a wide range of preventive, diagnostic and therapeutic applications
- are offered as brochures, decision charts, videos or computer programs
- contain information on advantages and disadvantages, available options and instructions for individualized decision-making
- are used individually or as components of structured counseling or training.

The minimum quality standards are evidence-based, complete, unbiased and comprehensible.

Medical decision aids do not replace medical advice.

1. Lenz M, Buhse S, Kasper J, Kupfer R, Richter T, Mühlhauser I. Entscheidungshilfen für Patienten Decision Aids for Patients Dtsch Arztebl Int 2012; 109(22-23): 401-8; DOI: 10.3238/arztebl.2012.0401

Gesundheitskompetenz

Entscheidungshilfen für Patientinnen / Patienten - allgemein, nicht brustkrebspezifisch -

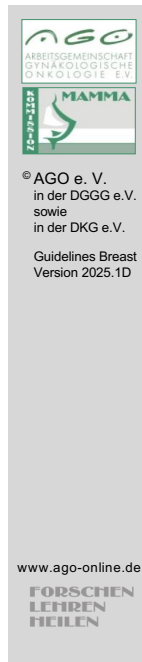
	Oxford	
	LoE	AGO
Einsatz von Entscheidungshilfen in der Arzt/Ärztinnen-Patientinnen/Patienten-Kommunikation		+
Dadurch wird:		
▪ das Wissen über Behandlungsoptionen verbessert	1a	
▪ der Entscheidungskonflikt verringert	1a	
▪ der Informationsgehalt erhöht	1a	
▪ die Klarheit für persönliche Werte erhöht	1a	
▪ eine aktivere Rolle bei der Entscheidungsfindung übernommen	2b	
▪ das eigene Risiko besser erkannt	2b	
▪ die Zufriedenheit der Patientin/des Patienten über die eigene Entscheidung verbessert	3a	

Entscheidungshilfen

1. Stacey D, Légaré F, Col NF, et al. Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev.* 2014;(1):CD001431. Published 2014 Jan 28. doi:10.1002/14651858.CD001431.pub4
2. Zdenkowski, Nicholas, Butow P, Tesson S, and Boyle F. "A Systematic Review of Decision Aids for Patients Making a Decision About Treatment for Early Breast Cancer." [In eng]. *Breast (Edinburgh, Scotland)* 26 (2016-4 2016): 31-45. <https://doi.org/doi:https://pubmed.ncbi.nlm.nih.gov/27017240/>.
3. Krassuski L, Vennedey V, Stock S, Kautz-Freimuth S. Effectiveness of decision aids for female BRCA1 and BRCA2 mutation carriers: a systematic review. *BMC Med Inform Decis Mak.* 2019;19(1):154. Published 2019 Aug 1. doi:10.1186/s12911-019-0872-2
4. V, Mühlbauer, Berger-Höger B, Albrecht M, Mühlhauser I, and Steckelberg A. "Communicating Prognosis to Women with Early Breast Cancer - Overview of Prediction Tools and the Development and Pilot Testing of a Decision Aid." [In eng]. *BMC health services research* 19, no. 1 (2019-3-15 2019): 171. <https://doi.org/doi:https://pubmed.ncbi.nlm.nih.gov/30876414/>.
5. Kautz-Freimuth S, Redaelli M, Isselhard A, et al. Evaluation of two evidence-based decision aids for female BRCA1/2 mutation carriers in Germany: study protocol for a randomised controlled parallel-group trial. *Trials.* 2022;23(1):157. Published 2022 Feb 16. doi:10.1186/s13063-022-06081-7
6. Salwei ME, Ancker JS, Weinger MB. The decision aid is the easy part: workflow challenges of shared decision making in cancer care. *J*

Natl Cancer Inst. 2023 Nov 8;115(11):1271-1277.

7. Kautz-Freimuth S, Redaelli M, Shukri A, Kentenich H, Simic D, Mildenerger V, Schmutzler R, Rhiem K, Stock S. Effectiveness of evidence-based decision aids for women with pathogenic BRCA1 or BRCA2 variants in the german health care context: results from a randomized controlled trial. BMC Med Inform Decis Mak. 2023 Oct 16;23(1):223
8. Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen (IQWiG) HTA-Bericht Behandlungsgespräche: Führt eine gemeinsame Entscheidungsfindung von Arzt und Patient bei der Therapiewahl zu besseren Ergebnissen? Projekt: HT22-01 Version: 1.0 Stand: 04.09.2023 https://www.iqwig.de/presse/pressemitteilungen/pressemitteilungen-detailseite_100418.html Abruf 03012024



Gesundheitskompetenz

Entscheidungscoaching

- allgemein, nicht brustkrebspezifisch -

	Oxford		
	LoE	GR	AGO
Der Einsatz von Entscheidungscoaching durch Gesundheitsexperten und –expertinnen, basierend auf evidenzbasierten Patienten-/Patientinneninformationen, kann den Entscheidungsprozess von Patienten/Patientinnen verbessern.			+
Ein solches Entscheidungscoaching kann			
▪ den Grad der Informiertheit von Patientinnen erhöhen	2a	B	
▪ die aktive Rolle von Patientinnen im Rahmen des Entscheidungsfindungsprozesses unterstützen.	2b	B	

Aktive Rolle:

- Berger-Höger B, Liethmann K, Mühlhauser I, et al. Nurse-led coaching of shared decision-making for women with ductal carcinoma in situ in breast care centers: A cluster randomized controlled trial. *Int J Nurs Stud.* 2019;93:141-152. doi:10.1016/j.ijnurstu.2019.01.013
- Isselhard A, Töpfer M, Berger-Höger B, et al. Implementation and evaluation of a nurse-led decision-coaching program for healthy breast cancer susceptibility gene (BRCA1/2) mutation carriers: a study protocol for the randomized controlled EDCP-BRCA study. *Trials.* 2020;21(1):501. Published 2020 Jun 8. doi:10.1186/s13063-020-04431-x
- Berger-Höger B, Vitinius F, Fischer H, et al. Nurse-led decision coaching by specialized nurses for healthy BRCA1/2 gene mutation carriers - adaptation and pilot testing of a curriculum for nurses: a qualitative study. *BMC Nurs.* 2022;21(1):42. Published 2022 Feb 10. doi:10.1186/s12912-022-00810-8

Informiertheit:

- Stacey D, Kryworuchko J, Bennett C, et al. Decision coaching to prepare patients for making health decisions: a systematic review of decision coaching in trials of patient decision aids. *Med Decis Mak.* 2012;32(3):E22–33.
- Stacey D, Kryworuchko J, Belkora J, et al. Coaching and guidance with patient decision aids: a review of theoretical and empirical evidence. *BMC Med Inform Decis Mak.* 2013;13(Suppl 2):S11. <https://doi.org/10.1186/1472-6947-13-S2-S11>

Allgemein:

1. Jull J, Köpke S, Boland L, et al. Decision coaching for people making healthcare decisions. Cochrane Database of Syst Rev. 2021;11(11):CD013385. <https://doi.org/10.1002/14651858.CD013385.pub2>.

Einsatz von eHealth bei BrustkrebspatientInnen

	Oxford		
	LoE	GR	AGO
▪ Anwendung von DiGA zur Verbesserung der Lebensqualität während und nach einer Brustkrebstherapie*	1b	B	+
▪ PRO-basiertes Management zur Reduktion von Therapie-assoziierten Nebenwirkungen und Verbesserung der Lebensqualität	1b	A	+
▪ PRO-basiertes Management zur Verbesserung des Überlebens in der metastasierten Situation	1b	B	+/-

* Siehe aktueller DiGA-Status, verschreibbar

DiGA aktuell: diga.bfarm.de

1. Wolff J, Seidel S, Wuelfing P et al. (2024). App-based support for breast cancer patients to reduce psychological distress during therapy and survivorship – a multicentric randomized controlled trial. *Frontiers in Oncology*,14. <https://doi.org/10.3389/fonc.2024.1354377>
2. Groene N and Schneck L (2023) Covering digital health applications in the public insurance system: how to foster innovation in patient care while mitigating financial risks— evidence from Germany. *Front. Digit. Health* 5:1217479. doi: 10.3389/fdgth.2023.1217479
3. Kramer U, Borges U, Fischer F, Hoffmann W, Pobiruchin M, Vollmar HC. DNVF-Memorandum – Gesundheits- und Medizin-Apps (GuMAs). *Das Gesundheitswesen* 2019; 81(10): 154 - 170. DOI: 10.1055/s-0038-1667451
4. Vollmar HC, Kramer U, Müller H, Griemert M, Noelle G, Schrappe M. Position Paper of The AG Digital Health DNVF on Digital Health Applications: Framework Conditions For Use in Health Care, Structural Development and Science. *Gesundheitswesen*. 2017 Dec;79(12):1080-1092. doi: 10.1055/s-0043-122233. Epub 2017 Dec 29.; 12/2017
5. Wanchai, A, Anderson EA, and Armer JM. "A Systematic Review of M-Health Apps on Managing Side Effects of Breast Cancer Treatment." [In eng]. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer* 31, no. 1 (2022-12-27 2022): 86. <https://doi.org/doi:10.1007/s00520-022-07464-x>. <https://pubmed.ncbi.nlm.nih.gov/36574048/>

6. Horn A, Jírů-Hillmann S, Widmann J, Montellano FA, Salmen J, Pryss R, Wöckel A, Heuschmann PU. Systematic review on the effectiveness of mobile health applications on mental health of breast cancer survivors. *Journal of Cancer Survivorship* <https://doi.org/10.1007/s11764-023-01470-6>
7. Singleton AC, Raeside R, Hyun KK, Partridge SR, Di Tanna GL, Hafiz N, Tu Q, et al. "Electronic Health Interventions for Patients with Breast Cancer: Systematic Review and Meta-Analyses." [In eng]. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology* 40, no. 20 (2022-7-10 2022): 2257-70. <https://doi.org/doi:10.1200/JCO.21.01171>. <https://pubmed.ncbi.nlm.nih.gov/35500200/>.
8. Cruz FOAM,, Vilela RA, Ferreira EB, Melo NS, and Reis PEDD. "Evidence on the Use of Mobile Apps During the Treatment of Breast Cancer: Systematic Review." [In eng]. *JMIR mHealth and uHealth* 7, no. 8 (2019-8-27 2019): e13245. <https://doi.org/doi:> <https://pubmed.ncbi.nlm.nih.gov/31456578/>.
9. Luo X, Chen Y, Chen J, Zhang Y, Li M, Xiong C, and Yan J. "Effectiveness of Mobile Health-Based Self-Management Interventions in Breast Cancer Patients: A Meta-Analysis." [In eng]. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer* 30, no. 3 (2022-3 2022): 2853-76. <https://doi.org/doi:> <https://pubmed.ncbi.nlm.nih.gov/34561732/>.
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