



Development and evaluation of innovate to communicate: a health literacy workforce training workshop

Carol Howe, Ashley Franklin, Tracine Adame & Teresa Wagner

To cite this article: Carol Howe, Ashley Franklin, Tracine Adame & Teresa Wagner (2024) Development and evaluation of innovate to communicate: a health literacy workforce training workshop, Health Literacy and Communication Open, 2:1, 2393592, DOI: [10.1080/28355245.2024.2393592](https://doi.org/10.1080/28355245.2024.2393592)

To link to this article: <https://doi.org/10.1080/28355245.2024.2393592>



© 2024 The Author(s). Published with license by Taylor & Francis Group, LLC



Published online: 29 Aug 2024.



Submit your article to this journal [↗](#)



Article views: 609



View related articles [↗](#)



View Crossmark data [↗](#)

Development and evaluation of innovate to communicate: a health literacy workforce training workshop

Carol Howe^a, Ashley Franklin^a, Tracine Adame^b and Teresa Wagner^{c,d}

^aHarris College of Nursing and Health Sciences, Texas Christian University, Fort Worth, Texas, USA; ^bResearch and Clinical Innovation, Medical City Dallas, Dallas, Texas, USA; ^cHealth Administration and Policy, School of Public Health, University of North Texas Health Sciences, Fort Worth, Texas, USA; ^dUNTHSC Texas State Certified CHW/CHWI Training Program, University of North Texas Health Sciences, Fort Worth, Texas, USA

ABSTRACT

Background: Healthcare professionals have been slow to adopt health literacy practices. With the focus on organizational health literacy increasing, there is a need for accompanying workforce training. **Aims:** The Innovate to Communicate workshop aimed to increase participants' knowledge and skills to (1) communicate using evidence-based health literacy practices e.g., plain language, chunking information, teach back, medicine review, and (2) integrate health literacy into structures, processes, and quality measures.

Methods: Health Literacy Collaborative of the Dallas Fort Worth Hospital Council, developed the ITC modules and workshop informed by the 10 Attributes of a Health Literate Organization and adult learning principles. We developed an interactive, engaging workshop that includes a didactic slide deck, exemplar videos, role-play scenarios, a Kahoot® game, and the Agency for Healthcare Research and Quality [AHRQ] Communication Observation Form.

Results: The ITC workshop was delivered at 7 virtual or in-person conferences with 250 participants. Of the total participants, 104 completed the workshop evaluation. Most reported that they see themselves using health literacy strategies in direct patient care (90%) with many participants feeling mostly or completely confident about using health literacy strategies such as plain language, chunking information, and teach back (81%) and doing one health literacy action in the next week (89%). The majority (92%) reported that the ITC workshop introduced them to at least one new health literacy resource that they had not used before. Most (93%) reported that they see themselves using the ITC workshop to train others and almost all (97%) reported that they were likely to recommend the ITC workshop to their colleagues. While 89% reported that the 1½ h workshop was the right amount of time, 11% reported that it was too short.

Discussion: The ITC was an interactive, engaging workshop that is available at no cost to others who are training healthcare professionals in health literacy.

PLAIN LANGUAGE SUMMARY

The Innovate to Communicate (ITC) workshop helps clinicians improve how they talk to patients. Developed by the Health Literacy Collaborative of the Dallas Fort Worth Hospital Council, the workshop is based on adult learning principles and the 10 Attributes of a Health Literate Organization. The workshop includes slides, videos, role-playing, and interactive games. It's been delivered at 7 conferences with 250 participants. After attending, participants felt confident with using plain language and teach-back. Most planned to use what they learned and would recommend the ITC workshop to others. The ITC workshop is a valuable resource for training healthcare professionals in health literacy, available at no cost.

ARTICLE HISTORY

Received 4 March 2024

Revised 28 June 2024



Accepted 12 August 2024

KEYWORDS

Health literacy; competencies; training workshop; teach back; medication review

One in three adults in the US and Europe is reported to have low levels of health literacy, representing a concerning public health challenge (Baccolini et al., 2021; Parker & Ratzan, 2010). Patients with low compared to those with adequate health literacy have

higher rates of emergency department visits (Balakrishnan et al., 2017) and increased 30-day readmissions (Kanejima et al., 2022). Rasu et al. (2015) reported associations between low health literacy and increased costs from emergency room visits, hospital

CONTACT Carol Howe  carol.howe@tcu.edu  Harris College of Nursing and Health Sciences, Texas Christian University, Fort Worth, TX, USA.

© 2024 The Author(s). Published with license by Taylor & Francis Group, LLC

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

admissions, and prescription medications, resulting in an estimated cost of low health literacy of \$215 billion per year in the United States.

Although health literacy was originally defined as a person's skill or deficit, health literacy has now become appreciated as a health determinant within the context of healthcare delivery. Accordingly, health literacy has become a shared responsibility, a function of an individual patient's capacity and the skill of clinicians and health systems to reduce complexity when providing health information to their patients (Farmanova et al., 2018). In the United States, the Institute of Medicine Roundtable on Health Literacy introduced the concept of the health literate organization, describing a set of 10 attributes that healthcare organizations should aspire to that make it easier for people to navigate, understand, and use health information to take care of their health (Brach et al., 2012). For the first time, Healthy People 2030, which sets national objectives to improve health in the U.S., included health literacy as one of the five overarching goals and expanded the definition of health literacy to include both (1) personal health literacy, the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others and (2) organizational health literacy, the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others. With this expanded definition, Healthy People 2030 is driving action in the U.S., acknowledging the role of providers, staff, and healthcare systems in making health care more understandable for patients and families. To ensure that health information is simple and clear, clinicians are advised to use health literacy practices such as using plain language, limiting information to 3–5 key points, chunking information into manageable bits, checking for comprehension using teach back, and conducting medicine reviews with patients such as the Agency for Healthcare Research and Quality (AHRQ) Brown Bag Medicine Review (Agency for Healthcare Research and Quality, 2024).

Teach back is a patient education strategy to check that patients are understanding health information. Rather than a test of patients, the clinician confirms whether they explained things in a way that the patient can understand, "I've gone over a lot of information and I want to make sure I did a good job, can you tell me in your own words what you need to know or do about _____." (Shersher et al., 2021) Should the clinician identify misunderstandings, they have an opportunity to re-teach and check again for

comprehension. Teach back reinforces patient education, improving knowledge recall and self-management, patient satisfaction (Yen & Leasure, 2019), medication adherence, and patient-centered communication (Talevski et al., 2020). A recent meta-analysis found that teach back resulted in a 45% decrease in 30-day readmissions rates (Oh et al., 2021). Training, education, and support of clinicians have been effective to implement teach back (Talevski et al., 2020). After teach back training, nurses showed increased knowledge of the teach back method and reported high rates of clarifying misunderstandings, mostly about medicines and self-care skills (Klingbeil & Gibson, 2018).

The Brown Bag Medicine Review, a U.S. AHRQ initiative, plays a critical role in medicine safety as clinicians may identify discrepancies and duplications of medicines, simplify medicine regimens, and provide education about the purpose and common side effects of medicines (De Baetselier et al., 2022; Mardani et al., 2020). For a Brown Bag Medicine Review, patients are asked to bring all of their prescription, over the counter (OTC), and complementary medicines in a "bag" to review. Through discussion, the clinician verifies how the patient is currently taking their medicine, including their understanding of the dose, schedule, and any special instructions for each medicine. Weiss et al. (2016) tested the pre-post effectiveness of implementing the Brown Bag Medication Review in two clinics in the American Academy of Family Physicians' National Research Network. After implementation of medication reviews, they reported a doubling of the number of identified drug therapy problems and the number of revised medication regimens. Similarly, James et al. (2020), implementing this practice in a free clinic, discovered problems with three-quarters of the medicine reviews. They reported issues with the medicine list with over half of the patients bringing medicines that were not included in the health record. More than half had duplicate medicines and almost half brought contraindicated medicines that had the potential for adverse drug interactions. They also reported issues with how patients were taking their medicines, with about ¼ of patients reporting that they stopped their medicine on their own and ¼ described not taking their medicine according to the drug label. Almost ¼ of patients had a change in medicine post-review. In a pre-post patient survey, patients reported greater knowledge of their medicine, including when and how to take their medicine and safety issues related to both their prescription and over-the-counter medicines.

Sorenson introduced a health literacy capacity-building framework, highlighting the need to develop

a health literate workforce and health literate organizations (Sørensen et al., 2021). To foster a health literate workforce, Coleman et al. (2013), using Delphi methods, identified competencies in health literacy for health professionals across knowledge, skills, and attitudes domains. More attention, however, is needed to develop these identified competencies of frontline clinicians (Sørensen et al., 2021). Health literacy practices should be a core skill, yet many clinicians reported feeling uncomfortable with teaching patients with low health literacy (Wittenberg et al., 2018) and most have not had formal training to adapt their teaching for low health literacy patients and families (Nantsupawat et al., 2020). Previous health literacy needs assessments in hospitals have reported a lack of health literacy workforce training (Farmanova et al., 2018; Howe et al., 2020). Training programs to increase health literacy knowledge, awareness, and application have shown positive results, but historically have limited effectiveness to scale because they involve multiple, lengthy education sessions (Kaper et al., 2018) that may no longer be feasible due to staffing shortages, time limitations, and patient acuity. To meet this need, the XXX Health Literacy Collaborative, including clinicians, leaders, and educators from partner organizations, developed Innovate to Communicate (ITC).

Methods

The GREET checklist (Guideline for reporting evidence-based practice educational interventions and teaching) guided the development of this paper (Phillips et al., 2016).

Target population

The target population includes frontline clinical staff, mid-level managers, and leadership employed in hospitals, ambulatory care centers, and healthcare systems. Although the original plan was to deliver ITC in hospital and ambulatory settings, this became impossible with high patient acuity and staff shortages during and immediately after the COVID-19 pandemic. Instead, the ITC workshop was delivered in virtual or face-to-face formats to groups attending health literacy/communication or clinically focused conferences.

Framework and learning objectives

Our team used the Institute of Medicine Health Literate Organization framework to guide the development of

the ITC workshop, focusing on 4 of the 10 aspirational attributes of a health literate organization (Brach et al., 2012):

- Prepares the workforce to be health literate and monitors progress,
- Integrates health literacy into planning, evaluation measures, patient safety, and quality improvement,
- Uses health literacy strategies in interpersonal communications and confirms understanding at all points of contact,
- Addresses health literacy in high-risk situations, including care transitions and communications about medicines.

The ITC learning objectives focus on clinician and leader health literacy practices towards a health literate organization, including: (1) communicate using evidence-based health literacy practices and (2) ways to integrate health literacy into structures, processes, and quality measures.

ITC instructors

The ITC instructors included nurses and a dietitian, experts in the field of health literacy, who delivered the workshop at in-person and virtual conferences. For health literacy and communication-focused conferences, instructors framed the workshop in a train-the-trainer format to grow the instructor base. The ITC authors report no competing interests to declare.

Innovate to communicate curriculum

ITC includes two self-learning modules and a 90-min multimedia, interactive workshop via Zoom and/or in person workshop that encourages not only learning but more importantly attitudinal and behavioral change towards a health literate organization. The modules are introduced as additional resources, separate and independent from the ITC workshop. Module 1, Health Literacy 101: Frontline Healthcare Workers focuses on basic health literacy knowledge, including the definitions of health literacy, those at risk for low health literacy, associated health outcomes with low health literacy, and health literacy best practices. Module 2, Leading a Health Literate Healthcare Organization adds more information about the aspirational aspects of a health literate organization. Learners complete each ITC module in approximately 1 h, earning one free continuing education credit.

For the ITC workshop, instructors use several teaching strategies, including a short didactic lecture, discussion, video exemplars, role play scenarios, and an interactive game. The workshop materials include a detailed lesson plan, slide deck, brown bag medicine review video and role play scenario (adult), teach back video and role play scenario (pediatric), a Kahoot® interactive game, and the Communication Observation form from the AHRQ Health Literacy Universal Toolkit.

Videos for health literacy training existed, however, many were developed years ago and appeared outdated (Foundation AMA, 2010). In response, the ITC team created professionally produced videos of exemplary clinician-patient interactions for a brown bag medicine review with an adult patient and a teach back scenario with a pediatric patient. The team also developed role-play scenarios to accompany the videos that include descriptions of the clinical situation and issues, the provider perspective, and the patient perspective, providing enough information for participants to discuss and to develop a patient teaching plan while incorporating health literacy practices. For example, for the teach back role play, the workshop attendees are divided into groups of 3–4 participants, with one acting as the health care provider, one as the parent, and 1–2 as observers. The health care provider reviews the information provided for them. They will provide teaching to a parent whose child underwent tonsillectomy and adenoidectomy. The goal is for the parent to understand and to be able to give their child pain medicine at home to control post-operative pain. The participant will instruct the parent to give these medicines in an alternating schedule so that the child will have pain medicine every 3 h. As well, the parent reviews their information for the role play, that they will soon be bringing their 9-year-old son home after surgery. The 1–2 observers are instructed to use the AHRQ Communication Observation Form to provide feedback to the health care provider on their health literacy practices. See links at the end of the paper for more information included in the lesson plan and workshop materials. Although the ITC materials includes developed role play scenarios, at clinically focused conferences, instructors encouraged attendees to use exemplars from their own clinical practice.

One important driver of a health literate organization is integrating health literacy into evaluation measures and quality improvement (Brach, 2017). An appointed individual within an organization may conduct routine observations of clinical interactions, using the AHRQ Communication Observation Form, to track progress of clinician uptake of health literacy

practices. During the role play scenarios, participants were coached to use the AHRQ Communication Observation Form (Agency for Healthcare Research and Quality, 2024).

Evaluation

The National Networks Library of Medicine (NNLM) provided a prescribed, standard evaluation plan that participants were requested to complete at the end of the workshop. Questions included participant ratings on a 4-point Likert scale on their confidence with and intentions to use health literacy strategies, their overall rating of the ITC workshop, and their intention to use the ITC materials to train others.

Results

We delivered the ITC workshop at four national or international health literacy/communication conferences and three clinically focused conferences; five were held virtually and two were in person. In addition, the ITC workshop was delivered to Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) staff by a trainer who attended one of the original workshops. Over 250 participants participated in ITC workshops from May 2021 to December 2023; evaluations were completed by 104 of these participants (42% response rate) at the end of the workshop. The workshop instructors did not ensure that participants accessed and completed the evaluations and no follow-up was done with the non-responders.

Most participants saw themselves using health literacy strategies in direct patient care, feeling mostly or completely confident about using health literacy strategies such as plain language, chunking information, and teach back, and that they would use one health literacy action in the next week (Table 1). Many participants ($n=96$, 92%) reported that the ITC workshop introduced them to at least one health literacy resource or tool that they had not used before (e.g., National Library of Medicine, Agency for Healthcare Quality and Research, and Center for Disease Control health literacy sites), 93% ($n=97$) reported that they saw themselves using the ITC workshop to train others, and 97% ($n=101$) reported that they were likely to recommend the ITC workshop to their colleagues. While 89% ($n=93$) reported that the 1–1½ h workshop was the right amount of time, 11% ($n=11$) reported that it was too short. The data supporting the findings of this study are available from the corresponding author, Dr. Carol Howe, upon reasonable request.

Table 1. Characteristics of ITC participants with completed evaluation.

Characteristic	<i>n</i>	%
Role		
Nurse	24	23.1
Pharmacist	5	4.8
Dietician	9	8.6
Physician	4	3.8
Psychologist	1	1.0
Other ^a	61	58.6
Years in role		
0–3 years	42	40.3
4–8 years	16	15.4
8–12 years	12	11.5
13 years of more	34	32.7
How confident do you feel using a health literacy strategy e.g. plain language, chunking information, or teach back?		
Not confident	2	1.9
A little confident	16	15.4
Pretty confident	60	57.7
Completely confident	26	25.0
How confident do you feel about doing one health literacy action in the next week?		
Not confident	0	0
A little confident	11	10.6
Pretty confident	54	51.9
Completely confident	39	37.5
I see myself using health literacy communication techniques in direct patient care.		
Unlikely	6	5.7
Somewhat unlikely	1	.96
Somewhat likely	17	16.3
Likely	80	76.9

^aCommunity Health Workers, Health Communication, Librarians, Students.

Discussion

Innovate to Communicate provides much needed training and detailed action steps to ensure a culture of health literacy within health care organizations. Health literacy actions learned and practiced during the workshop are feasible and scalable within workshop participant's clinical units and overall healthcare systems.

Brief training workshops such as ITC may be effective to increase awareness and intent to use health literacy practices. Given the time constraints in daily clinical practices, clinicians are only available for short periods to learn and practice new skills. Other brief health literacy programs have been shown to be effective. For example, Muscat et al. (2021) reported that participants after a 2-h health literacy training program had increased confidence and intent to use health literacy practices. Similarly, Klingbeil and Gibson (2018) showed improvement in teach back knowledge following a 45–60 min multidisciplinary teach back training program in a pediatric healthcare system with follow-up reports of discovering patient misunderstandings with the use of teach back.

Participants in the ITC workshops were engaged and responsive during the interactive training. The ITC incorporated multiple teaching strategies, similar to previously reported training sessions on the use of teach back (Gibson et al., 2022). Providing opportunities to see one (video exemplar) and do one (role play) may be an effective method to reinforce health literacy knowledge and skills.

Limitations

Innovate to Communicate has several limitations. The evaluation relied on self-report immediately following the ITC workshop. Although participants reported their intentions to use health literacy practices, actual changes in practice were not examined or observed. Differences in learning and engagement for virtual compared to face to face workshops were not evaluated but should be considered in future offerings. Although pre-post testing of knowledge, attitudes, and behaviors would demonstrate more rigor, scientific research that required institutional review board review was not allowable with NNLM funding.

Clinical implications

The Innovate to Communicate team invites others to use and share at no cost the learning modules and workshop materials. ITC modules may be accessed at [Health Literacy 101: Frontline Healthcare Workers and Leading a Health Literate Healthcare Organization](#). ITC workshop materials are available at [Innovate to Communicate](#). Links to the videos, role-play scenarios, Kahoot® game, quality tools, and workshop evaluation are embedded in the slide deck to make workshop logistics easier. Healthcare systems may use a train-the-trainer model to implement the Innovate to Communicate workshop in person or virtually to scale use of health literacy strategies. To accommodate time constraints in busy clinical settings, trainers may divide the workshop into 20–30 min sequential lessons.

Conclusion

Despite positive patient outcomes found during controlled trials, clinicians have been slow to adopt health literacy practices (Howe et al., 2020). Health literacy workforce training is a first step towards becoming a health literate organization. The ITC team created modules and a workshop toolkit that may be a valuable resource to persons who are planning and delivering health literacy training to healthcare professionals. ITC resources are available, free to the public.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by the Network of the National Library of Medicine.

References

- Agency for Healthcare Research and Quality. (2024). *AHRQ health literacy universal precautions toolkit* (3rd ed.). AHRQ.
- Baccolini, V., Rosso, A., Di Paolo, C., Isonne, C., Salerno, C., Migliara, G., Prencipe, G. P., Massimi, A., Marzuillo, C., De Vito, C., Villari, P., & Romano, F. (2021). What is the prevalence of low health literacy in European Union member states? A systematic review and meta-analysis. *Journal of General Internal Medicine*, 36(3), 753–761. <https://doi.org/10.1007/s11606-020-06407-8>
- Balakrishnan, M. P., Herndon, J. B., Zhang, J., Payton, T., Shuster, J., & Carden, D. L. (2017). The association of health literacy with preventable emergency department visits: A cross-sectional study. *Academic Emergency Medicine*, 24(9), 1042–1050. <https://doi.org/10.1111/acem.13244>
- Brach, C. (2017). The journey to become a health literate organization: A snapshot of health system improvement. *Studies in Health Technology and Informatics*, 240, 203–237.
- Brach, C., Keller, D., Hernandez, L. M., Baur, C., Parker, R., Dreyer, B., Schyve, P., Lemerise, A. J., & Schillinger, D. (2012). Ten attributes of health literate health care organizations. Participants in the workgroup on attributes of a health literate organization of the IOM Roundtable on Health Literacy. NAM Perspectives.
- Coleman, C. A., Hudson, S., & Maine, L. L. (2013). Health literacy practices and educational competencies for health professionals: A consensus study. *Journal of Health Communication*, 18(SUPPL. 1), 82–102. <https://doi.org/10.1080/10810730.2013.829538>
- De Baetselier, E., Dilles, T., Feyen, H., Haegdorens, F., Mortelmans, L., & Van Rompaey, B. (2022). Nurses' responsibilities and tasks in pharmaceutical care: A scoping review. *Nursing Open*, 9(6), 2562–2571. <https://doi.org/10.1002/nop2.984>
- Farmanova, E., Bonneville, L., & Bouchard, L. (2018). Organizational health literacy: review of theories, frameworks, guides, and implementation issues. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 55, 0046958018757848.
- Foundation AMA. (2010). *Health literacy and patient safety: Help patients understand*. https://www.youtube.com/watch?v=cGtTZ_vxjyA
- Gibson, C., Smith, D., & Morrison, A. K. (2022). Improving health literacy knowledge, behaviors, and confidence with interactive training. *Health Literacy Research and Practice*, 6(2), e113–e120. <https://doi.org/10.3928/24748307-20220420-01>
- Howe, C. J., Adame, T., Lewis, B., & Wagner, T. (2020). Assessing organizational focus on health literacy in north Texas hospitals. *The American Journal of Nursing*, 120(12), 24–33. https://journals.lww.com/ajnonline/Fulltext/2020/12000/Original_Research__Assessing_Organizational_Focus.26.aspx?context=FeaturedArticles&collectionId=1
- James, C., Mason, S., Vardaman, S., & Spurlock, A. Y. (2020). Brown bag review for identification of discrepancies in patient medication use. *Online Journal of*, 2(2), 3. <https://repository.ulm.edu/ojihp/vol2/iss2/3/%0Ahttps://repository.ulm.edu/cgi/viewcontent.cgi?article=1018&context=ojihp>
- Kanejima, Y., Shimogai, T., Kitamura, M., Ishihara, K., & Izawa, K. P. (2022). Impact of health literacy in patients with cardiovascular diseases: A systematic review and meta-analysis. *Patient Education and Counseling*, 105(7), 1793–1800. <https://doi.org/10.1016/j.pec.2021.11.021>
- Kaper, M. S., Sixsmith, J., Koot, J. A. R., Meijering, L. B., van Twillert, S., Giammarchi, C., Bevilacqua, R., Barry, M. M., Doyle, P., Reijneveld, S. A., & de Winter, A. F. (2018). Developing and pilot testing a comprehensive health literacy communication training for health professionals in three European countries. *Patient Education and Counseling*, 101(1), 152–158. <https://doi.org/10.1016/j.pec.2017.07.017>
- Klingbeil, C., & Gibson, C. (2018). The teach back project: A system-wide evidence based practice implementation. *Journal of Pediatric Nursing*, 42, 81–85. <https://doi.org/10.1016/j.pedn.2018.06.002>
- Mardani, A., Griffiths, P., & Vaismoradi, M. (2020). The role of the nurse in the management of medicines during transitional care: A systematic review. *Journal of Multidisciplinary Healthcare*, 13, 1347–1361. <https://doi.org/10.2147/JMDH.S276061>
- Muscat, D. M., Cefrnja, D., Hobbs, K., Gibson, J.-A., Blumenthal, C., Milad, R., Burns, C., Lau, T., & Flood, V. (2021). Development and evaluation of a health literacy training program for allied health professionals: A pre-post study assessing impact and implementation outcomes. *Health Promotion Journal of Australia*, 32(S1), 88–97. <https://doi.org/10.1002/hpja.350>
- Nantsupawat, A., Wichaikhum, O. A., Abhicharttibutra, K., Kunaviktikul, W., Nurumal, M. S. B., & Poghosyan, L. (2020). Nurses' knowledge of health literacy, communication techniques, and barriers to the implementation of health literacy programs: A cross-sectional study. *Nursing & Health Sciences*, 22(3), 577–585. <https://doi.org/10.1111/nhs.12698>
- Oh, E. G., Lee, H. J., Yang, Y. L., & Kim, Y. M. (2021). Effectiveness of discharge education with the teach-back method on 30-day readmission: A systematic review. *Journal of Patient Safety*, 17(4), 305–310. <https://doi.org/10.1097/PTS.0000000000000596>
- Parker, R., & Ratzan, S. C. (2010). Health literacy: A second decade of distinction for Americans. *Journal of Health Communication*, 15(sup2), 20–33. <https://doi.org/10.1080/10810730.2010.501094>
- Phillips, A. C., Lewis, L. K., McEvoy, M. P., Galipeau, J., Glasziou, P., Moher, D., Tilson, J. K., & Williams, M. T. (2016). Development and validation of the guideline for reporting evidence-based practice educational interventions and teaching (GREET). *BMC Medical Education*, 16(1), 237. <https://doi.org/10.1186/s12909-016-0759-1>

- Rasu, R. S., Bawa, W. A., Suminski, R., Snella, K., & Warady, B. (2015). Health literacy impact on national healthcare utilization and expenditure. *International Journal of Health Policy and Management*, 4(11), 747–755. <https://doi.org/10.15171/ijhpm.2015.151>
- Shersher, V., Haines, T. P., Sturgiss, L., Weller, C., & Williams, C. (2021). Definitions and use of the teach-back method in healthcare consultations with patients: A systematic review and thematic synthesis. *Patient Education and Counseling*, 104(1), 118–129. <https://doi.org/10.1016/j.pec.2020.07.026>
- Sørensen, K., Levin-Zamir, D., Duong, T. V., Okan, O., Brasil, V. V., & Nutbeam, D. (2021). Building health literacy system capacity: A framework for health literate systems. *Health Promotion International*, 36(Supplement_1), I13–I23. <https://doi.org/10.1093/heapro/daab153>
- Talevski, J., Shee, A. W., Rasmussen, B., Kemp, G., & Beauchamp, A. (2020). Teach-back: A systematic review of implementation and impacts. *PloS One*, 15(4), e0231350. <https://doi.org/10.1371/journal.pone.0231350>
- Weiss, B. D., Brega, A. G., LeBlanc, W. G., Mabachi, N. M., Barnard, J., Albright, K., Cifuentes, M., Brach, C., & West, D. R. (2016). Improving the effectiveness of medication review: Guidance from the health literacy universal precautions toolkit. *Journal of the American Board of Family Medicine: JABFM*, 29(1), 18–23. <https://doi.org/10.3122/jabfm.2016.01.150163>
- Wittenberg, E., Ferrell, B., Kanter, E., & Buller, H. (2018). Health literacy: Exploring nursing challenges to providing support and understanding. *Clinical Journal of Oncology Nursing*, 22(1), 53–61. <https://doi.org/10.1188/18.CJON.53-61>
- Yen, P. H., & Leasure, A. R. (2019). Use and effectiveness of the teach-back method in patient education and health outcomes. *Federal Practitioner: For the Health Care Professionals of the VA, DoD, and PHS*, 36(6), 284–289. <http://www.ncbi.nlm.nih.gov/pubmed/31258322%0Ahttp://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC6590951>