

Spring 5-17-2018

Enhancing Health Literacy Using Teach Back Method to Increase Patient Adherence

Tram Mendoza
tram.ng88@gmail.com

Follow this and additional works at: <https://repository.usfca.edu/dnp>

 Part of the [Nursing Commons](#)

Recommended Citation

Mendoza, Tram, "Enhancing Health Literacy Using Teach Back Method to Increase Patient Adherence" (2018). *Doctor of Nursing Practice (DNP) Projects*. 144.
<https://repository.usfca.edu/dnp/144>

This Project is brought to you for free and open access by the Theses, Dissertations, Capstones and Projects at USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. It has been accepted for inclusion in Doctor of Nursing Practice (DNP) Projects by an authorized administrator of USF Scholarship: a digital repository @ Gleeson Library | Geschke Center. For more information, please contact repository@usfca.edu.

Enhancing Health Literacy Using Teach Back Method to Increase Patient Adherence

Tram Nguyen

University of San Francisco

N749A

Abstract

Health literacy is an important component of successful health care delivery and relies on both individual and systemic factors to achieve. For individuals not trained in the medical field, health literacy can be a complicated and perplexing web of information to navigate. Patients can have varying degrees of health literacy affecting their understanding of health conditions, especially the elderly, immigrants, minorities, and the low-income populations. Limited health literacy can pose risks on a patient's well-being, interfere with their self-care and health maintenance, and possibly create obstacles for the patient if health instructions are not clearly understood. One proven model of improving patient's understanding of their condition and needed care, is the teach back method. The teach-back method is easily accessible to all providers and effortless to use and is transferable across health care settings so that it can be utilized globally. The teach-back method consistently increases patient proficiency in health literacy and disease awareness, while minimizing the potential for misinterpretation (Agency for Healthcare Quality and Research [AHRQ], 2015). Given high rates of chronic and preventable diseases (Center for Disease Control, 2018), increased access to care, and limited time available to actively engage with patients, finding various ways of utilizing the teach back method effortlessly, can help patients better manage their health. In order to increase awareness of various methods of implementing teach back method and promoting quality outcomes for providers, this paper will review the teach back method; investigate the various methods of utilization; and highlight effective models to integrate teach back in every patient encounter.

Background

The Institute of Medicine (IOM) defines health care literacy as the degree and capacity that individuals have, to obtain, process, and understand basic health information and services required to make appropriate health decisions for themselves or loved ones (Institute of Medicine, 2018). In order to navigate the dense and technical American health care system, patients will need to have the appropriate reading, writing, speaking, listening, and critical analysis skills to take on an active role in making informed health related decisions, not only for themselves but possibly even loved ones. The level of health literacy a patient possesses, serves as a critical determinant of their health outcomes (IOM, 2018).

Low health literacy is a significant problem in the United States, affecting over 80 million Americans (AHRQ, 2015). Populations with disproportionately low health literacy include: older adults, immigrant populations, minorities, and low-income populations, putting them at risk for poorer health outcomes, reduced psychological well-being, increased hospitalizations, poorer use of healthcare services, and higher risk of mortality (AHRQ, 2015). Common reasons for limited health literacy rates include: lack of an educational opportunity, cognitive decline, or learning disabilities due to language barriers and cultural differences (AHRQ, 2015). This lack of education can lead to increased health expenditures secondary to treating the consequences of poor health maintenance in addition to unnecessary emergency room visits (National Assessment of Adult Literacy [NAAL], 2018). Health care providers have an implicit responsibility to educate patients and work with them to translate their desired goals and outcomes. How to help patients decipher health language accurately and have meaningful transformative health encounters remains a challenge.

The United States Department of Education National Assessment of Adult Literacy (NAAL) identifies 36% of adults in America at basic or below basic health literacy levels. Basic

health literacy is the ability to self-update, interpret, and evaluate information on the determinants of health, and make informed decisions based on these understandings (NAAL, 2018). Multiple domains have been determined as social determinants of health such as: stress, work, social support, addiction, unemployment, food, and transport, all of which can impact a patient's knowledge and aspect on health (Matsumoto & Nakayama, 2017). The NAAL recognizes that 55% of patients that are identified as having low health literacy did not graduate from high school, 44% did not speak English prior to starting school, 39% are Hispanic, 20% are Black adults, 26% are over 65 years of age, and 21% have multiple disabilities (2018). Significant consequences for low health literacy affect both health care providers and the patients.

Effective interventions such as the teach-back method are necessary to mitigate the consequences of low health literacy rates, which have been shown to lead to suboptimal use of health services, impacting health outcomes negatively (AHRQ, 2015). Corollaries of low health literacy rates are: lower vaccination rates, lower number of visits for health screenings such as mammography, lower use of hospital educational resources, and increased emergency room visits, consequentially resulting in higher mortality rates (AHRQ, 2015).

Low health literacy has significant health consequences for patients, but also impacts health care providers and the health care system. Addressing low health literacy rates can improve the economic well-being of the United States, but more importantly serve to equip and empower patients to better understand and manage their healthcare to improve health outcomes as a whole (National Assessment of Adult Literacy, 2018). The consequences of low health literacy rates in the United States are \$106 to \$238 billion dollars spent annually due to emergency room visits and illnesses, that could have been prevented had patients understood

how to better manage their health (NAAL, 2018). In an effort to improve the quality of care for patients, there is a great demand for the delivery of accurate and useful quality healthcare information issued by the Centers for Medicare & Medicaid Services (CMS), especially to aid in shared patient decision-making models and value-based payment and purchasing incentives (Centers for Medicare & Medicaid Services [CMS], 2017). Increasing patient knowledge of health can help to decrease health care cost, as patients will better manage and maintain their own health and can also help to promote quality outcomes for providers.

Health information can be overwhelming even for those who are well versed in its sphere due to the conglomeration of vocabulary that stems from not only the medical processes but insurance provisions and instructional guidance surrounding after visit care (NAAL, 2018). Limited health literacy will not only affect a person's ability to engage in self-care management but can deter them from sharing health information with their providers (Boland & Stacey, 2016). A patient's health literacy can be influenced by multiple factors including their own educational backgrounds- to how well health care providers work in educating and assisting them in learning about their own conditions. While there are certain risk factors that contribute to higher health literacy rates that cannot be influenced, there is significant room for improvement in patient provider relationships for those aspects that can be addressed. Factors such as age, culture, socioeconomic backgrounds, genetics, educational levels, are things beyond a provider's ability to control. However, the technique and approach utilized to assist these patients in learning new information, is something providers can guide.

While providers receive some type of formal training on communicating with patients during their education, not all may communicate effectively, especially in diverse settings as well as with limited time barriers per visit (Watts et al., 2017). Many providers report feeling

uncertainty and express barriers to communication while working with diverse patient populations, including minority groups (Watts et al., 2017). Among the strategies identified to improve better facilitation of communication, modifying speech in addition to spending more time with patients proved to improve communication skills, providing benefit to both the patient and providers (Watts et al., 2017).

The amount of time a provider has to spend with a patient during each visit may be challenging to utilize strategically to address the patient needs, answer patient questions, perform patient assessment, develop a plan to treat the patient, let alone providing clear and thorough patient education and ensuring the patient understood the education being communicated. With practice, the teach-back method can be performed promptly as part of the visit and eventually in a routine matter (AHRQ, 2015). AHRQ provides a scale known as the Conviction and Confidence Scale (Figure 1), to help providers identify ways to build their confidence using teach-back, in addition to a Teach Back Observation Tool (Figure 2), to be utilized by a designated observer as providers interact using teach-back, as a means to help guide and coach the providers to establish consistent habits of using the teach-back method. These tools will help healthcare providers to practice speaking to patients clearly, confidently, and in ways that patients may understand, helping to develop effortless communication while promoting meaningful use of time spent with the patient (AHRQ, 2015).



Conviction and Confidence Scale

Fill this out before you start using teach-back, and 1 and 3 months later.

Name: _____

- Check one: Before - Date: _____
 1 month - Date: _____
 3 months - Date: _____

1. On a scale from 1 to 10, how **convicted** are you that it is important to use teach-back (ask patients to explain key information back in their own words)?

Not at all important Very Important

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

2. On a scale from 1 to 10, how **confident** are you in your ability to use teach-back (ask patients to explain key information back in their own words)?

Not at all confident Very Confident

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

3. How often do you ask patients to explain back, in their own words, what they need to know or do to take care of themselves?

- I have been doing this for 6 months or more.
- I have been doing this for less than 6 months.
- I do not do it now, but plan to do this in the next month.
- I do not do it now, but plan to do this in the next 2 to 6 months.
- I do not do it now and do not plan to do this.

Conviction and Confidence Scale continued

4. Check all the elements of effective teach-back you have used **more than half the time in the past work week.**
- Use a caring tone of voice and attitude.
 - Display comfortable body language, make eye contact, and sit down.
 - Use plain language.
 - Ask the patient to explain, in their own words, what they were told.
 - Use non-shaming, open-ended questions.
 - Avoid asking questions that can be answered with a yes or no.
 - Take responsibility for making sure you were clear.
 - Explain and check again if the patient is unable to teach back.
 - Use reader-friendly print materials to support learning.
 - Document use of and patient's response to teach-back.
 - Include family members/caregivers if they were present.

Notes: _____



Figure 1.



Teach-back Observation Tool

Care Team Member: _____ Date: _____

Observer: _____ Time: _____

Did the care team member...	Yes	No	N/A	Comments
Use a caring tone of voice and attitude?				
Display comfortable body language, make eye contact, and sit down?				
Use plain language?				
Ask the patient to explain in their own words what they were told to do about: <ul style="list-style-type: none"> • Signs and symptoms they should call the doctor for? • Key medicines? • Critical self-care activities? • Follow-up appointments? 				
Use non-shaming, open-ended questions?				
Avoid asking questions that can be answered with a yes or no?				
Take responsibility for making sure they were clear?				
Explain and check again if the patient is unable to use teach-back?				
Use reader-friendly print materials to support learning?				
Document use of and patient's response to teach-back?				
Include family members/caregivers if they were present?				

1



Figure 2.

The teach-back method is designed to allow health care providers to confirm that patients understand the healthcare information being relayed to them. The method is meant for provider usage more than it is to test patient knowledge. The teach-back method is a simple and effective evidence-based approach that may be the first step in assisting patients towards improving health literacy in any type of patient encounter (AHRQ, 2015).

What is the Teach-Back Method?

The most essential and effective method in delivering health care information is via communication. It is said that communication that is timely, in addition to being accurate and unambiguous, can successfully reduce error and result in improved safety for patients if it is understood correctly by the patient (Marcus, 2014). The teach-back method helps to facilitate patient comprehension of health care information, by enabling providers to frequently evaluate whether or not learning has occurred. The teach-back method is also known as the “show me” method, essentially a coaching system for providers where they educate patients with information in small increments, and patients are then asked to repeat or demonstrate the information they have learned back to providers, in their own words (AHRQ, 2015). The teach-back method is not a test of the patient’s knowledge, but rather a valuable universal tool for any provider, in any health setting, to utilize with every patient interaction in an effort to broaden patient health literacy (AHRQ, 2015).

Effectiveness of the Teach Back Method in Healthcare

With chronic diseases on the rise worldwide, causing increased burden of care to those affected by it, community and outpatient educational programs alone do not provide effective outcomes as patients are not retaining the information in one sitting, or are memorizing it incorrectly (Ha, Bonner, Clark, Ramsbothan, & Hines, 2016). Implementing the teach-back

method has shown positive effects including: improving outcomes in disease-specific knowledge, improving patient adherence to medications and regimens, improving self-care and management, and has shown a reduction in hospital readmission rates (Ha et al, 2016). The teach-back method has demonstrated a positive association in information retention, for patients in many settings where it is used, whether it is inpatient or outpatient care, and in an array of departments from the emergency room to nursing homes (Limpahan, Baier, Gravenstein, Liebmann, & Gardner, 2013). The teach-back method's straightforward approach allows for it to be utilized in any healthcare setting, by any healthcare providers.

At Children's Hospital in Wisconsin, the evidence-based practice fellows designed and implemented a way for nurses to utilize the teach-back method in order to improve the discharge process and experience for patients and families (Kornburger, Gibson, Sadowski, Maletta, & Klingbeil, 2013). The fellows created a multi-component educational intervention to teach nurses how to incorporate the teach-back method into their discharge education. The intervention included creating a shame-free environment where patients and families would feel safe to engage and ask questions; teaching nurses to speak in simple terms when teaching patients and families; and limiting the amount of teaching being done at one time. Information overload between provider and patient interaction is common, therefore teaching in small blocks while asking the patients to repeat in their own words what they have understood, helps to reinforce key messages (Kornbuger, et al., 2013). Ninety-eight percent of participants found it useful and valuable, and 56.9% of nurses were able to personally clarify and correct misunderstandings by use of the teach-back method (Kornbuger, et. al., 2013). The use of this intervention for teach back, helped nurses feel empowered by ensuring patient understanding, correcting inaccurate

information, increasing patient health literacy, and promoting a safer transition to home (Kornbuger, et. al., 2013).

Asthmatic patients in two emergency rooms: pediatrics and adult care, of a tertiary care hospital where, participated in in-depth interviews regarding the teach-back technique in relation to health literacy amongst patients (Samuels-Kalow, Hardy, Rhodes, & Mollen, 2016). Adults and pediatric patients were included in the research if they were diagnosed with asthma, spoke English, and were under 11 years of age for pediatrics. Fifty-one interviews were completed, 31 adult parents of the pediatric population and 20 adults. Of the 31 adult parents, 48% had limited health literacy, 81% were African-American, and 85% had public insurance. Of the 20 adults, 60% had limited health literacy, 85% were African-American, 30% completed college, and 80% had public or no insurance. Between both groups, participants felt that the providers did a good job utilizing the teach-back method to help confirm their learning while reducing their chances of missing out on key information. Participants were overall satisfied with the outcomes of their increased health knowledge and clarification of medical instructions, and appreciative of the education it provided, expressing it assisted in improving their understanding and provided clarity on the information being received (Samuels-Kalow, Hardy, Rhodes, & Mollen, 2016). The teach back method is shown to be broadly accepted between different departments and patient populations in health care.

Another effective demonstration of teach back method, in postmenopausal women and self-care activities versus no education increases satisfaction and care. Bahri, Saljooghi, Noghabi, and Moshki, (2018) randomly selected and studied 80 post-menopausal women in Iran. There were no significant differences between the participants in terms of knowledge on menopause, self-care practices post menopause, demographics, or level of occupation ($p>0.05$).

These women were randomly placed into either a control or intervention group. The intervention group attended four 45-minute sessions of a training program based on the teach-back method, covering the principles of self-care during menopause. The first session taught self-care tips associated with diet and physical exercise, the second session taught of relaxation and stress control, the third session taught tips relate to maintaining a healthy lifestyle, and the fourth session taught about menopause associated with chronic diseases and complications. The control group received no teach-back associated with their condition. Knowledge of self-care post menopause was measured before the education and one month post educational intervention for both groups, via a questionnaire. The results concluded that the intervention group scored significantly higher in their knowledge on postmenopausal care compared to the control group ($p=0.001$). This shows that interventions based around the teach-back method improves self-care activities and is an effective educational method that providers can implement in any clinical population (Bahri, Saljooghi, Noghabi, & Moshki, 2018).

Mollazadeh and Maslakpak (2018), selected 84 kidney transplant patients via convenience sampling and randomly assigned them into a control and intervention group. The participants were ages 18-60 and at least three months post kidney transplant. In this study, the groups received educational content via five 60-minute sessions, with the intervention group receiving the teach-back method in conjunction with their education. The control group was not offered the teach-back method. Participants received a Self-Management Scale for Kidney Transplant Recipients with 24 questions assessing the patient's knowledge on self-monitoring, self-care, early detecting and coping with abnormalities after kidney transplantation, and stress management. The results showed that the intervention group scored significantly higher in their understanding of self-management after kidney transplant ($p=0.001$), compared to the control

group. The teach-back method proved effective and beneficial to the health of kidney transplant recipients who were able to perform self-care and management such as control of vital signs, medication management, and infection symptom identification, and is recommended to be utilized in provider and patient interaction to help patients successfully manage their care (Mollazadeh & Maslakpak, 2018).

Using Teach Back Method

In order to deliver the teach-back method effectively with every patient interaction, the teach-back tools should be utilized (refer to Figures 1 & 2) (AHRQ, 2018). The purpose of teach-back tools are to assist all health care providers to provide support to patients and their families throughout the care continuum. The tools combine the behavioral principles of coaching to assist patients in breaking their old habits and forming new habits, in addition to health literacy principles to confirm patient understanding (AHRQ, 2018). The interactive learning module provides videos and an interactive experience to help health care providers practice the teach-back method. The module takes the providers through mock scenarios from hospital discharges to home health visits and physician follow-ups (AHRQ, 2018). With tips and tools to master the teach-back method, medical assistants, nurses, doctors, nurse practitioners, case managers, social workers, and many more health care providers, are able to provide a meaningful educational experience with every patient interaction.

There are many methods for utilizing teach back method. The reality of time constraints in patient encounters does not allow for long sessions for teach back, hence leaves providers without an opportunity to explore other possible ways of incorporating teach back method regularly. Some innovative methods that can be used include: incremental teach back, teach back in phases, and utilizing ancillary staff for implementing teach back.

Incremental Teach Back

One approach to employ the teach-back method using short segments of time, is to break the teaching into increments during the visit and as part of the routine conversation. Providers simply would use their standard approach to provide medical knowledge and instructions to the patients in fundamental terms. Providers should not wait until the end of the visit or interaction to initiate the teach-back method and assess the patient's understanding but should be incorporating it throughout the conversation. Information should be provided in small segments and patients should be asked to reiterate what they understand about the information, in their own words (AHRQ, 2018). Throughout the interaction, the provider should take time to ask the patient to reiterate what was taught or said to them, in the patient's own words. This allows for meaningful use of the provider's time and technique towards teaching the patient as well as provides confirmation that the patient has retained the information desired.

During the interaction with the patients, providers should speak slowly and clearly, using simple terminology. Information should be provided in small intervals and important key concepts should be repeated. Providers should confirm understanding by asking questions such as "Can you please explain to me in your own words, what you understand about what I have just said? I want to make sure I have explained everything clearly." Confirmation of patient understanding occurs when the patient is able to demonstrate the grasp of the concept in their own words. If the patient is unsuccessful in doing so and fails to demonstrate understanding, the provider may try alternative methods such as utilizing illustrations or aids to demonstrate the concept (Rajah, Ahmad Hassali, Jou, & Murugiah, 2018). The provider should also then follow-up with another attempt of teach-back. An example of this might include a visit for hypertension. The provider can start with discussing today's blood pressure, and while reviewing this with the

patient, can state the expected goal (normal blood pressure ranges). Having the patient repeat this or reiterate it right away to verify understanding. As the provider continues to discuss how the patient is feeling in general; teaching of possible symptoms, side effects of medications, and general lifestyle contributing factors can occur. During the examination the provider may utilize teach back to discuss the health consequences and complications of uncontrolled hypertension and end organ damage, having the patient repeat what is being taught. At the end of the visit, having the patient repeat some key takeaways, and offering additional information or answering questions, will help reinforce the teaching. While all of this teaching can occur during the visit, it is broken into increments and most importantly, occurs with the provider, in the one visit, to promote adherence to self-management and the most effective utilization of patient and provider time.

Utilizing Teach-Back Across Visits

The teach-back method can and should be used in multiple visits and sessions to fulfill deeper learning outcomes. By breaking up large pieces of chronic health illness education and covering them during multiple visits, it allows patients more opportunities to ask questions and to improve their own self-management of their health by hearing and learning the information repeated times. For patients with more chronic illnesses and long-term conditions, splitting up the education in multiple visits allows health care providers to supply more education with each visit while also examining what the patients were able to recall from the previous visits (AHRQ, 2018). Chronic conditions require the most self-management and education and predispose patients to poorer outcomes. However, understanding the full scope of the disease, its impact on health, and the prevention of complications can be an overbearing task for patients, and likely a reason for noncompliance or lack of appropriate self-management (NAAL, 2018).

The teach-back method helps patients and their caregivers or family members to better manage their own chronic conditions via allowing the health care provider to focus on teaching about symptom recognition, medication adherence, diet control, weight control, and possibly the effects of using alcohol and tobacco. Self-management is a central point for chronic disease care as it may improve treatment via patient adherence, and improve the quality of life (Thi, Clark, Bonner, & Hines, 2013).

Teach Back Method in Team-Based Care

The teach-back method helps to close the loop in learning health care information as providers are actively assessing for comprehension. The results of successful teach-back method utilization not only serve to improve patient health literacy, but also promotes patient health care adherence. Up to eighty percent of patients forget medical information and instructions immediately after hearing it from their providers, whereas over nearly half of the information that is retained is incorrect (AHRQ, 2018). The teach-back method can help not only doctors but registered nurses, medical assistants, techs, pharmacists, case managers, social workers, ancillary staff, and anyone involved in the patient's care, capture a patient's attention and confirm that patients understand what they need to know, via engaging patients by having them reiterate in their own words, what they have heard and understood (The Teach Back Method, 2015). Medical assistants can utilize the teach back method during office visits to help patients to convey reminders about scheduled appointments, navigation of patient portals for increased compliance, training for self-medications, vital signs in the home setting, direct pre-post visit instructions, reviewing hand-outs pertinent to the patient's health care whether regarding vaccinations or procedures, and discuss directions on utilizing medical devices such as inhalers or glucometers. Social workers and case managers can utilize the teach-back method to ensure

patients know and understand their insurance plans, coverage, and benefits. Nurses can provide education related to the patient's diagnosis, on diet, and on procedural skills such as injection education or wound care.

Implications for Practice

Health literacy has been recognized as a determinant of patient health outcomes, where patients with low health literacy have more difficulty managing health issues such as chronic conditions, medication management, hence lower rates of health adherence (AHRQ, 2018). Since the teach-back method technique is structured, providers should not be taking more time out of their day to perform the technique if they simply incorporate the utilizing teach-back regularly as part of their dialogue when speaking to patients and family members. As these studies have shown, providers can help to drastically increase patients' understanding in managing their own health by use of the teach-back method. This allows for more intimate interaction with the patients, allows for providers to fix patient's misunderstandings about their health on the spot, and solidify patients' knowledge pertaining to their health prior to discharging them from care. While there are a variety of teaching methods out there, without implementing teach-back, the chances of a patient walking away after all the educational service efforts have been performed, without understand anything that had been communicated, will remain high and frequent.

Conclusion

When providers utilize the teach-back method, patients and their families benefit from the interaction, improving their health literacy skills and likelihood to adhere to recommended health regimens and advices. In clinical practice, emphasis should be placed on training health care providers to utilize teach-back method in all patient interactions. The teach back method can

further be embedded in the training and workflow for MA's, nursing staff, and other healthcare roles that partake in the patient's visit and care. Optimizing teach back, by incorporating the technique into the visit, rather than a separate encounter improves work flow and the ability to enhance patient outcomes. The effective use of teach-back method will improve health literacy, and can lead to a drastic reduced cost in healthcare expenditures and improved health outcomes.

References

- AHRQ, Use the Teach-Back Method: Tool #5. (2015, February 05). Retrieved from <https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlittoolkit2-tool5.html>
- Ahtisham, Y., & Jacoline, S. (2015). Integrating nursing theory and process into practice; henderson need theory. *International Journal of Caring Sciences*, 8(2), 443-450.
- Alberti, T. L., & Nannini, A. (2013). Patient comprehension of discharge instructions from the emergency department: A literature review. *Journal Of The American Association Of Nurse Practitioners*, 25(4), 186-194. doi:10.1111/j.1745-7599.2012.00767.x
- Almkuist, K. D. (2017). Using teach-back method to prevent 30-day readmissions in patients with heart failure: a systematic review. *MEDSURG Nursing*, 26(5), 309-351.
- Bahri, N., Saljooghi, S., Noghabi, A., & Moshki, M. (2018). Effectiveness of the teach-back method in improving self-care activities in postmenopausal women. *Przegląd Menopauzalny, Menopausal Review*. 17(1), 5-10. doi:10.5114/pm.2018.74896
- Boland, L., & Stacey, D. (2016). Health literacy in practice and research. *Canadian Oncology Nursing Journal*, 26(4), 359.
- Bowskill, D., & Garner, L. (2012). Medicines non-adherence: adult literacy and implications for practice. *British Journal of Nursing*, 21(19), 1156-1159.

- Brand, H., Fullam, J., Van den Broucke, S., Pelikan, J., Doyle, G., Slonska, Z., & Sørensen, K. (2012). Health literacy and public health: A systematic review and integration of definitions and models. doi:10.1186/1471-2458-12-80
- Centers for Disease Control and Prevention. (n.d.). Retrieved on September 18, 2018, from <https://www.cdc.gov/>
- Center for Medicare & Medicaid Services. (2017, July 28). Retrieved August 1, 2018, from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Core-Measures.html>
- Dalir, Z.),, Mazlom, S.),, Reihani, Z.),, & Vakilian, F.). (2016). Effect of training based on teach back method on self-care in patients with heart failure. *Journal Of Mazandaran University Of Medical Sciences*, 25(134), 209-220.
- Hahn, E., Garcia, S., Du, H., & Cella, D (2010). Patient attitudes and preferences regarding literacy screening in ambulatory cancer care clinics. United States, North America: Dove Medical Press.
- Haire, T. M. (n.d). Alleviating Discharge Confusion for Older Patients Using the Teach-Back Method.
- Kim, H., & Xie, B. (2017). Review article: health literacy in the eHealth era: a systematic review of the literature. *Patient Education and Counseling*, 1001073-1082.
doi:10.1016/j.pec.2017.01.015
- Kornburger, C., Gibson, C., Sadowski, S., Maletta, K., & Klingbeil, C. (2013). Using “Teach back” to promote a safe transition from hospital to home: an evidence-based

- approach to improving the discharge process. *Journal Of Pediatric Nursing*, 28282
291.doi:10.1016/j.pedn.2012.10.007
- Liang, L., & Brach, C. (2017). Health literacy universal precautions are still a distant dream: analysis of U.S. data on health literate practices. Retrieved August 1, 2018, from <https://www.healio.com/public-health/journals/hlrp/2017-10-1-4/{927b6af7-23ab-4c39994b-a11eea42e80f}/health-literacy-universal-precautions-are-still-a-distant-dream-analysis-of-us-data-on-health-literate-practices>.
- Limpahan, L. P., Baier, R. R., Gravenstein, S., Liebmann, O., & Gardner, R. L. (2013). Closing the loop: best practices for cross-setting communication at ED discharge. *The American Journal Of Emergency Medicine*, 31(9), 1297-1301. doi:10.1016/j.ajem.2013.04.017
- Madineh, D., Nasrin, E., Sahram, B., & Seyed, L., The effects of group education with the teach-back method on hospital readmission rates of heart failure patients. (2016). *Jundishapur J Chronic Dis Care*. doi:10.17795/jjcdc-30377
- Marcus, C. (2014). Strategies for improving the quality of verbal patient and family education: a review of the literature and creation of the educate model. *Health Psychology and Behavioral Medicine*, 2(1), 482–495. <http://doi.org/10.1080/21642850.2014.900450>
- Mathew, M. R., Mohan, L., Paul, M., Maideen, M., Jose, L., & Ommanakuttan, M. (2018). Evaluating effectiveness of patient counseling, teach back versus standard method. *International Journal of Basic & Clinical Pharmacology*, (1). 87. doi:10.18203/23192003.ijbcp20175680.
- Matsumoto, M., & Nakayama, K. (2017). Development of the health literacy on social determinants of health questionnaire in Japanese adults. *BMC Public Health*, 17, 30. <http://doi.org/10.1186/s12889-016-3971-3>

- Mollazadeh, F., & Hemmati Maslakpak, M. (2018). The effect of teach-back training on self management in kidney transplant recipients: a clinical trial . *International Journal of Community Based Nursing and Midwifery*, 6(2), 146–155.
- Miller, S. (2016). “Teach-back” from a patient’s perspective. *Nursing*, 46(2), 63
64. Doi:10.1097/01.NURSE.0000476249.18503.f5
- Morrison, M. (2015, September 13). Kurt Lewin change theory and three step model – Unfreeze Change-Freeze. Retrieved August 1, 2018, from <https://rapidbi.com/kurt-lewin-three-step-change-theory/>
- Ouyang, H. (2015). A piece of my mind. The art of discharge. *Journal of American Medical Association*, 313(20), 2027-2028. doi:10.1001/jama.2015.2569
- Rajah, R., Ahmad Hassali, M., Jou, L., & Murugiah, M. (2018). The perspective of healthcare providers and patients on health literacy: a systematic review of the quantitative and qualitative studies. *Perspectives in Public Health*, 138(2), 122-132.
doi:10.1177/1757913917733775
- Samuels-Kalow, M., Hardy, E., Rhodes, K., & Mollen, C. (2016). 'Like a dialogue': Teach-back in the emergency department. *Patient Education and Counseling*, 99(4), 549-554.
doi:10.1016/j.pec.2015.10.030.
- Slater, B. A., Huang, Y., & Dalawari, P. (2017). Brief report: The impact of teach-back method on retention of key domains of emergency department discharge instructions. *Journal Of Emergency Medicine*, 53e59-e65. doi:10.1016/j.jemermed.2017.06.032
- Tamura-Lis, W. (2013) Teach-back for quality education and patient safety. *Urologic Nursing*, 33(6), 267-298. Doi:10.7257/1053-816X.2013.33.6.267

Thi Thuy Ha, D., Clark, R., Bonner, A., & Hines, S. (2013). The effectiveness of health education using the teach-back method on adherence and self-management in chronic disease: a systematic review protocol. *JBI Database Of Systematic Reviews & Implementation Reports*, 11(10), 30-41. doi:10.11124/jbisrir-2013-900

The Teach Back Method : Home Healthcare Now. (n.d.). Retrieved from.

https://journals.lww.com/homehealthcarenurseonline/fulltext/2015/06000/The_Teach_Back_Method.13.aspx

Teach-Back Method: Tool #5. Content last reviewed February 2015. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlittoolkit2-tool5.html>

Watts, K.J., Meiser, B., Zilliacus, E., Kaur, R., Taok, M., Girgis, A., & ... Kissane, D. W. (2017). Communicating with patients from minority backgrounds: Individual challenges experienced by oncology health professionals. *European Journal Of Oncology Nursing*, 2683-90. doi:10.1016/j.ejon.2016.12.001

White, M., Garbez, R., Carroll, M., Brinker, E., & Howie-Esquivel, J. (2013). Is 'teach-back' associated with knowledge retention and hospital readmission in hospitalized heart failure patients?. *Journal Of Cardiovascular Nursing*, 28(2), 137-146. doi:10.1097/JCN.0b013e31824987bd