

Prioritized Health Literacy and Clear Communication Practices For Health Care Professionals

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ABSTRACT

Background: Health care professionals need more and better training about health literacy and clear communication to provide optimal care to populations with low health literacy. A large number of health literacy and clear communication practices have been identified in the literature, but health professions educators, administrators, and policymakers have lacked guidance regarding which practices should be prioritized among members of the health care workforce. **Objective:** This study sought to prioritize recommended health literacy and clear communication practices for health care professionals. **Methods:** A Q-sort consensus method was used among 25 health literacy experts to rank a previously identified list of 32 health literacy and clear communication practices for health care professionals. Mean ratings for each of the 32 practices were compared using *t*-tests. **Key Results:** Mean ratings for the 32 practices fell along a spectrum from higher to lower importance. The eight top-rated practices formed a cluster, and seven of these items demonstrated clear consensus, whereas one item may have been influenced by one or more outlier rankings. **Conclusions:** Although a large number of health literacy and clear communication practices have been recommended in the literature for health care professionals, this is the first known study to rank such practices in terms of importance. The top-rated items can be considered a core set of practices that all health care professionals should learn and routinely use in clinical settings. These consensus opinion results will help health professions educators, administrators, and policymakers to direct potentially limited resources toward improving training in patient-centered communication, and when designing curricula, practice standards, care delivery models, and policies for health care professionals and systems to improve patient outcomes. Future studies should empirically confirm the relative value of the ranked items in terms of patient-centered outcomes. [*Health Literacy Research and Practice*. 2017;1(3):e90-e99.]

Plain Language Summary: This is the first study to rank the most important things that health care workers can do to communicate more clearly with patients. A group of 25 experts ranked 32 items in order of importance. The list can be used to improve training for health care workers.

Health literacy is defined as the degree to which people have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Ratzan & Parker, 2000). Low health literacy, which is associated with numerous adverse health outcomes (Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011), is considered an “educationally sensitive issue,” in that improved training for health care professionals to better understand, and effectively address patients’ low health literacy

skills, through clear communication techniques, is expected to improve outcomes for patients (Yin, Jay, Maness, Zabar, & Kalet, 2015). Clear health communication is defined as written or oral communication that helps patients understand and act on health care information (Pfizer Inc., 2013), whereas health literacy practices are defined as patient-centered protocols and strategies to minimize the negative consequences of low or limited health literacy (Barrett, Puryear, & Westpheling, 2008). Many clear communication

strategies and health literacy practices have been recommended (Coleman, Hudson, & Maine, 2013), but studies show that, in large part, these best practices are applied inconsistently (Schwartzberg, Cowett, Van Geest, & Wolf, 2007; Howard, Jacobson, & Kripalani, 2013), and medical students, physician assistant students, and resident physicians have reported feeling unprepared to help people with low health literacy (Ali, Ferguson, Mitha, & Hanlon, 2014).

The U.S. Institute of Medicine (now the National Academies of Sciences, Engineering, and Medicine) recommends that “professional schools and professional continuing education programs in health and related fields, including medicine, dentistry, pharmacy, social work, anthropology, nursing, public health, and journalism, should incorporate health literacy into their curricula and areas of competence” (Nielsen-Bohlman, Panzer, & Kindig, 2004). Improving health literacy training for health professionals is an important part of health systems becoming more patient-centered, and is a central component of the National Action Plan to Improve Health Literacy in the United States (U.S. Department of Health and Human Services, 2010). Although a variety of approaches to teaching health care professionals about health literacy and clear communication have been used, and curricula in this area are proliferating (Coleman, 2011), many health care professionals still do not receive formal training in this important area of health services delivery. For example, in the U.S., teaching about health literacy has been reported among 72% of allopathic medical schools (Coleman & Appy, 2012), 63% of baccalaureate undergraduate nursing programs (Scott, 2016), 42% of family medicine residencies (Coleman, Nguyen, Garvin, Sou, & Carney, 2016a), and 43% of community-based internal medicine residencies (Ali,

2012). Although the first three of these studies included representative sampling techniques, each had relatively low response rates of 47%, 38%, and 31%, respectively (the fourth study used a small, nonrepresentative sample), raising the concern that the results may overestimate the true prevalence of health literacy teaching in the fields studied (Coleman, et al., 2016a; Coleman & Appy, 2012).

A comprehensive list of health literacy and clear communication practices and competencies (knowledge, skills and attitudes) for U.S. health professionals was published in 2013 (Coleman, et al., 2013). This set of 32 recommended practices and 62 underlying educational competencies resulted from a consensus project involving U.S. health professions educators, and has since been replicated with similar results among health literacy experts in the field of nursing (Toronto, 2016), and among a European expert panel (Karuranga, Mahmud, Sørensen, & Coleman, 2106). It should be noted that many of the recommended practices and educational competencies identified in these consensus studies are supported primarily by expert opinion, and empirical evidence to support their effectiveness is often lacking (Coleman, et al., 2013). Although seen as an important first step toward improving health literacy and clear communication training for health professionals, the identified list of practices and competencies was deemed to be too long and lacking the prioritization needed to be most useful to health professions educators, administrators, personnel managers, and policymakers (Coleman, et al., 2013), who are often constrained by limited resources, including instructional hours, financial resources (West, et al., 2016), and faculty availability (Seidel & Crowe, 2017; Drowos, et al, 2017; Glaspie & Wong, 2015) and expertise (Seidel & Crowe, 2017; Coleman, et al., 2016a). Although data on the actual cost and time resources of integrating

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TABLE 1

Participant Demographics

Characteristic	Value (n = 25)
Gender	
Female	20 (80%)
Male	5 (20%)
Age (years)	
35-39	1 (4%)
40-44	4 (16%)
45-49	3 (12%)
50-54	6 (24%)
55-59	1 (4%)
60 or older	7 (28%)
Unknown	3 (12%)
Highest degree attained	
Bachelor's	3 (12%)
Master's	9 (36%)
Doctorate	13 (52%)
Ethnicity, self-identified	
Hispanic or Latino	1 (4%)
Not Hispanic or Latino	21 (84%)
Unknown	3 (12%)
Race(s), self-identified	
American Indian or Alaska Native	0 (0%)
Asian	0 (0%)
Black or African American	1 (4%)
Native Hawaiian or other Pacific Islander	1 (4%)
White	20 (80%)
Unknown	3 (12%)
Professional role	
Professor (Assistant/Associate/Clinical)	10 (40%)
Director of health literacy program	8 (32%)
Executive officer of health literacy organization	3 (12%)
Health literacy consultant	4 (16%)
Years working in the field of health literacy	12.7 (mean)
Number of health literacy publications	7.8 (mean)

health literacy in health professional education are lacking, the present study aimed to produce a prioritized list of health literacy practices for health professionals to aid decision-makers in the rational allocation of training resources, with the goal of improving health care through improved health communication.

METHODS

We conducted an in-person survey of a convenience sample of 25 health literacy experts attending one of two national health literacy conferences (the 13th Annual Institute for Healthcare Advancement's Health Literacy Conference, Irvine, CA, May 7, 2014 and the 6th Annual Health Literacy Research Conference, Bethesda, MD, November 2, 2014). People were initially identified from lists of conference registrants, from which two of the authors (C.C. and S.H., initials removed for blinded review) then identified prospective participants based on degree of health literacy expertise, determined by the number of related publications, years working in the field, job title, and/or peer referral, without specific *a priori* thresholds for these variables. Prospective panelists were then invited to participate via an introductory email message. This process was continued until a total of 25 participants were identified. People who attended both conferences were only allowed to participate once. Participants at each conference met as a group for an introductory presentation by two of the authors (C.C. and S.H., initials removed for blinded review) to describe the aim of the study and the Q-sort methodology to be used. The Q-sort method (described below) is a validated technique for gathering quantitative information about qualitative data (McKeown & Thomas, 2013), which has been used to prioritize educational competencies for resident physicians (Meade, et al., 2013) and has been described for use in nursing education (Barker, 2008). Food was provided for the meeting, but no other incentives were offered. After the introduction, participants worked independently to complete a Q-sort activity in which they each received a shuffled and randomized "deck" of 32 cards, each card printed with a single unique health literacy practice. The 32 practices had been developed based on expert opinion during a previous consensus study involving a panel of health professions educators (Coleman, et al., 2013). Participants placed each of the 32 cards into one of the 32 blank spaces on a Q-sort array, resembling an inverted pyramid (**Table A**), in order of importance, which we defined as "the potential to have the greatest positive impact for the greatest number of patients." Moving left to right across the Q-sort grid, each column is assigned a point value of decreasing weight (9 = most important, through 1 = least important). Items in any given column are assigned equal importance.

For each of the 32 practice items we calculated the mean rank order and standard deviation, with a range of possible scores from 1 to 9. Mean ratings for each practice were compared to the other 31 practices using two-tailed

TABLE 2

Health Literacy Practices Ranked by Mean Rating

Rank	Health Literacy Practice	Mean Rating (SD)
1	Consistently avoids using medical "jargon" in oral and written communication with patients, and defines unavoidable jargon in lay terms	6.9 (1.2)
2	Routinely uses a "teach back" or "show me" technique to check for understanding and correct misunderstandings in a variety of health care settings, including during the informed consent process	6.9 (1.3)
3	Consistently elicits questions from patients through a "patient-centered" approach (e.g., "what questions do you have?", rather than "do you have any questions?")	6.2 (1.2)
4	Consistently uses a "universal precautions" approach to oral and written communication with patients	6.2 (2.6)
5	Routinely recommends the use of professional medical interpreter services for patients whose preferred language is other than English	6 (1.9)
6	Consistently negotiates a mutual agenda with patients at the outset of encounters	6 (2)
7	Routinely emphasizes one to three "need-to-know" or "need-to-do" concepts during a given patient encounter	6 (1.2)
8	Consistently elicits the full list of patient concerns at the outset of encounters	5.9 (2.1)
9	Routinely ensures that patients understand at minimum: (1) what their main problem is, (2) what is recommended that they do about it, and (3) why this is important	5.9 (2.1)
10	Routinely uses short action-oriented statements, which focus on answering the patient's question, "what do I need to do" in oral and written communication with patients	5.8 (1.1)
11	Consistently locates and uses literacy-appropriate patient education materials, when needed and available, to reinforce oral communication, and reviews such materials with patients, underlining or highlighting key information	5.7 (1.2)
12	Routinely uses verbal and nonverbal active-listening techniques when speaking with patients	5.7 (1.7)
13	Routinely "chunks and checks" by giving patients small amounts of information and checking for understanding before moving to new information	5.6 (1.6)
14	Routinely conveys numeric information, such as risk, using low "numeracy" approaches, such as through examples, in oral and written communication	5.5 (1.5)
15	Routinely makes instructions interactive, such that patients engage the information, to facilitate retention and recall	5.4 (1.9)
16	Routinely elicits patients' prior understanding of their health issues in a nonshaming manner (e.g., asks "what do you already know about high blood pressure?")	5.3 (1.6)
17	Routinely selects culturally and socially appropriate and relevant visual aids, including objects and models, to enhance and reinforce oral and written communication with patients	5.2 (1.7)
18	Routinely anticipates and addresses navigational barriers within health care systems and shares responsibility with patients for understanding and navigating systems and processes; attempts to make systems and processes as transparent as possible	5.1 (2.2)
19	Consistently speaks slowly and clearly with patients	5 (1.7)
20	Consistently follows principles of easy-to-read formatting when writing for patients, including the use of short sentences and paragraphs, and the use of bulleted lists rather than denser blocks of text, when appropriate	4.8 (1.6)
21	Routinely uses analogies and examples, avoiding idioms and metaphors, to help make oral and written information more meaningful to patients	4.6 (1.4)
22	Routinely assesses adherence to treatment recommendations, and root causes for non-adherence, nonjudgmentally, before recommending changes to treatment plans	4.5 (1.9)
23	When preparing to educate patients, routinely asks about patients' preferred learning style in a nonshaming manner (e.g., asks "what is the best way for you to learn new information?")	4.3 (2)
24	Routinely arranges for timely follow-up when communication errors are anticipated	4.2 (1.7)

TABLE 2 (continued)

Health Literacy Practices Ranked by Mean Rating

Rank	Health Literacy Practice	Mean Rating (SD)
25	Routinely conducts medication reconciliation with patients, including use of “brown bag” medication reviews, when called for during regular duties	4 (1.3)
26	Routinely documents in the medical record that a “teach back,” or closed communication loop technique has been used to check the patient’s level of understanding at the end of the encounter	3.9 (1.4)
27	Routinely puts information into context by using subject headings in both written and oral communication with patients	3.9 (1.4)
28	Routinely writes in English at approximately the 5th-6th grade reading level	3.6 (1.7)
29	Consistently writes or rewrites (“translates”) unambiguous medication instructions when called for during regular duties	3.4 (1.7)
30	Routinely refers patients to appropriate community resources for enhancing literacy and/or health literacy skills (e.g., Adult Basic Literacy Education) within the context of the therapeutic relationship	3.2 (1.8)
31	Routinely encourages and facilitates patients to carry an updated list of their medications with them	3.1 (1.1)
32	Consistently treats the diagnosis of limited health literacy as “protected health information” requiring specific “release of information” for disclosure	2.5 (1.4)

Note. Results based on the rankings of 25 health experts.

Student’s t-tests, with significance set at 0.05. The study was approved by the Institutional Review Board at Oregon Health & Science University.

RESULTS

Twenty-five health literacy experts completed the Q-sort ranking. Most of the participants were White women, with median age 50 to 54 years, a doctoral degree, an average of 12.7 years working in the field of health literacy, and an average of 7.8 health literacy publications (Table 1). Mean column rankings (1 to 9) for the 32 health literacy practices ranged from a high of 6.9 for both the avoidance of medical jargon and routine use of “teach back,” to a low of 2.5 for treating information about patients’ health literacy as protected health information (Table 2). Table A shows these data organized onto the Q-sort grid, with highest mean ratings on the left and lowest mean ratings on the right. Because items in each column on the Q-sort grid are given equal value, we compared mean ratings for each practice item with that of all other items. This yielded an array showing a gradient from higher to lower mean ranking, and transition points where individual mean rankings became statistically significantly different between items (Figure 1). This allowed us to visually estimate approximate boundaries between clusters of items, which are indicated as Groups 1 to 3 in Figure 1. As can be seen in Table A, Group 1

includes items in the three most highly rated columns on the Q-sort grid (columns 9, 8 and 7); items in Group 2 (columns 6, 5, and 4) and Group 3 (columns 3, 2, and 1) in Table A closely align with the visually estimated divisions in Figure 1. To determine whether mean item ratings could be the result of a small number of unusually high or low ratings (i.e., outliers), we calculated the number and percentage of participants who rated each of the items in Group 1 at an importance level of ≥ 7 (out of 9). If the rank ordering achieved through the Q-sort methodology reflects valid consensus opinions and minimizes the potential effects of outlier opinions or widely distributed group opinions, then the number and percentage of people ranking any given item highly should correlate with the group’s mean rating of that item. With one exception (rank item number 3: “Consistently elicits questions from patients through a ‘patient-centered’ approach”), the percentage of participants who rated an item at the level 7 or above (i.e., who placed the item in Group 1 within his or her individual Q-sort array) declined consistently with the overall mean rating of each item, suggesting little influence from outlier opinions among seven of the eight top-rated items (Table 3), and providing an additional measure of internal consistency. For rank item number 3, the percentage of participants who rated it highly was lower than expected, suggesting that one or more outliers may have influenced its mean rating (Table 3).

Group 1																	Group 2																	Group 3																
P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24	P25	P26	P27	P28	P29	P30	P31	P32																			
1.00	1.00	0.07	0.22	0.05	0.05	0.04	0.04	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
1.00	0.07	1.00	0.22	0.05	0.05	0.04	0.04	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
	1.00		1.00	0.95	0.56	0.54	0.46	0.47	0.23	0.20	0.11	0.14	0.05	0.06	0.02	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
		1.00	0.95	0.56	0.54	0.46	0.47	0.23	0.20	0.11	0.14	0.05	0.06	0.02	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
			1.00	0.72	0.72	0.71	0.64	0.64	0.53	0.41	0.37	0.37	0.24	0.20	0.14	0.13	0.12	0.05	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
				1.00	1.00	1.00	0.89	0.89	0.80	0.61	0.56	0.54	0.35	0.29	0.20	0.18	0.17	0.07	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
					1.00	1.00	0.89	0.89	0.79	0.60	0.55	0.53	0.34	0.28	0.19	0.17	0.17	0.06	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
						1.00	0.89	0.89	0.78	0.59	0.53	0.52	0.32	0.27	0.17	0.16	0.16	0.06	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
							1.00	1.00	0.93	0.72	0.68	0.65	0.44	0.37	0.26	0.24	0.22	0.10	0.04	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
								1.00	0.93	0.72	0.68	0.65	0.44	0.37	0.26	0.24	0.22	0.10	0.04	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
									1.00	0.70	0.62	0.61	0.33	0.28	0.16	0.14	0.15	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
										1.00	1.00	0.93	0.66	0.54	0.40	0.37	0.33	0.15	0.06	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
											1.00	0.92	0.60	0.48	0.32	0.29	0.27	0.09	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
												1.00	0.72	0.58	0.43	0.40	0.35	0.16	0.06	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
													1.00	0.80	0.65	0.60	0.50	0.26	0.10	0.04	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
														1.00	0.87	0.82	0.68	0.44	0.23	0.13	0.13	0.11	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
															1.00	0.93	0.77	0.50	0.25	0.14	0.11	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
																1.00	0.83	0.57	0.30	0.18	0.14	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																		
																	1.00	0.78	0.51	0.36	0.27	0.17	0.09	0.03	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00																		
																		1.00	0.67	0.48	0.35	0.20	0.10	0.03	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00																		
																			1.00	0.77	0.57	0.35	0.20	0.10	0.06	0.04	0.04	0.01	0.01	0.00	0.00	0.00																		
																				1.00	0.73	0.46	0.27	0.10	0.06	0.06	0.06	0.02	0.01	0.00	0.00	0.00																		
																					1.00	0.71	0.52	0.26	0.20	0.20	0.07	0.04	0.02	0.00	0.00	0.00																		
																						1.00	0.82	0.50	0.41	0.41	0.17	0.11	0.06	0.01	0.00	0.00																		
																							1.00	0.64	0.52	0.52	0.21	0.13	0.06	0.01	0.00	0.00																		
																								1.00	0.83	0.84	0.35	0.22	0.11	0.01	0.00	0.00	0.00																	
																									1.00	1.00	1.00	0.46	0.31	0.16	0.03	0.00	0.00	0.00																
																										1.00	1.00	0.80	0.32	0.16	0.03	0.00	0.00	0.00	0.00															
																											1.00	1.00	0.80	0.51	0.24	0.02	0.00	0.00	0.00	0.00														
																												1.00	1.00	0.68	0.37	0.03	0.00	0.00	0.00	0.00														
																													1.00	1.00	0.70	0.10	0.10	0.10	0.10	0.10														
																														1.00	1.00	0.10	0.10	0.10	0.10															

Figure 1. P values for differences between mean rankings for 32 health literacy practice items. Shaded boxes represent statistically significant differences between compared means ($p \leq .05$).

TABLE 3

Agreement of Group 1 Health Literacy Practices Among Expert Participants

Mean Rank Order	Group 1 Health Literacy Practice	Number (%) of Participants (<i>n</i> = 25) Ranking Item ≥ 7 on Importance
1	Routinely uses a “teach back” or “show me” technique to check for understanding and correct misunderstandings in a variety of health care settings, including during the informed consent process	16 (64)
2	Consistently avoids using medical “jargon” in oral and written communication with patients, and defines unavoidable jargon in lay terms	15 (60)
3	Consistently elicits questions from patients through a “patient-centered” approach (e.g., “what questions do you have?”, rather than “do you have any questions?”)	9 (36)
4	Consistently uses a “universal precautions” approach to oral and written communication with patients	14 (56)
5	Routinely recommends the use of professional medical interpreter services for patients whose preferred language is other than English	12 (48)
6	Consistently negotiates a mutual agenda with patients at the outset of encounters	12 (48)
7	Routinely emphasizes one to three “need-to-know” or “need-to-do” concepts during a given patient encounter	10 (40)
8	Consistently elicits the full list of patient concerns at the outset of encounters	10 (40)

DISCUSSION

Although consensus agreement has previously been developed regarding health literacy practices for health professionals in the U.S. (Coleman, et al., 2013) and Europe (Karuranga et al., 2106) and separately among health literacy experts in the field of nursing (Toronto, 2016); until now, clinicians, health professions educators, administrators, and policymakers have lacked guidance regarding which practices to prioritize, and, therefore, where to direct limited resources (e.g., time, money, and expertise). This is the first known study to prioritize health literacy and clear communication best practices for health professionals. We believe that the eight top-rated items in Group 1 (**Table 3** and **Table A**) represent promising high-yield practices that should be promoted for routine use among all health care professionals to increase clarity of communication and to help mitigate the negative effects of low health literacy. Rank items 6 and 8 both relate to effective agenda-setting, and can be combined into a single item. Items in Group 1 can be considered a minimum or “core” set of practices. Although the items in Group 1 are considered to offer the greatest benefit for the greatest number of people, it must be emphasized that items in Groups 2 and 3 are also considered promising practices (Coleman, et al., 2013), and our results do not suggest that practices in Groups 2 and 3 are somehow unimportant. Indeed, items in Groups 2 and 3 may, in

fact, be as or more important in certain settings or situations. Prioritization may vary across health care professions, practice settings, or patient populations. Users of this prioritized list should consider the particular needs of their stakeholders, as well as their available resources, when determining which practices to promote and to what degree. Health professions educators and others should match selected health literacy practices with their own underlying competencies when designing learning activities. (Coleman, et al., 2013) It should be noted, however, that although a variety of educational studies have reported positive effects of health literacy and clear communication curricula on knowledge and skills for health professionals (Coleman, Peterson-Perry, & Bumsted, 2016b; Coleman & Fromer, 2015; Toronto & Weatherford, 2015; Green, Gonzaga, Cohen, & Spagnoletti, 2014; Mackert, Ball, & Lopez, 2011; Coleman, 2011), to our knowledge, no studies have reported an effect of such interventions on patient-centered outcomes. Furthermore, in the absence of information regarding the cost of implementing training interventions to achieve health literacy and clear communication practices, it is not possible to comment on the actual resources needed for such interventions.

This study has a number of important limitations. First, the original list of 32 health literacy practices was developed by consensus among a panel selected for expertise as health professions educators (Coleman, et al., 2013). Although 73%

of these educators indicated some degree of health literacy expertise, the list of practices may have been different if it had been generated by a group of experts selected specifically for their health literacy expertise, and thus, the prioritized list might have been different as well. Subsequent research has yielded somewhat different lists of practices (Toronto, 2016; Karuranga et al., 2016) that were not available at the time of this study. The fact that we did not modify items on the list prior to ranking them is evident in the results. For example, two of the top-rated items, practice item 6 (Consistently negotiates a mutual agenda with patients at the outset of encounters) and practice item 8 (Consistently elicits the full list of patient concerns at the outset of encounters), would likely have been combined into a single item. Second, as was described in the original consensus study (Coleman, et al., 2013), the evidence supporting items on the list of recommended health literacy practices is primarily based on expert opinion. Although some individual items, such as use of “teach back” (Schillinger, et al., 2003), and up-front agenda-setting (Mauksch, Dugdale, Dodson, & Epstein, 2008), are supported by limited amounts of empirical evidence, there are virtually no outcome studies comparing one health literacy practice to another in terms of relative value or importance. The results of our study comparing health literacy practices represent expert opinion only and should be interpreted as such. Future studies should empirically test the relative importance of individual (or collective) health literacy practices to patient-centered outcomes. Third, our expert panel was limited in terms of gender and racial and ethnic diversity, potentially limiting the generalizability of our results. In addition, we did not collect demographic information on how many participants worked directly in patient care, which could potentially affect their ability to determine the importance of practice items to patient outcomes. Lastly, there is no agreement on the optimal panel size for Q-sort studies. It is possible that a differently sized or composed panel would reach different conclusions. Despite these limitations, the present study provides an advancement for health professions educators, administrators, and policymakers attempting to improve health care delivery through communication-based interventions aimed at mitigating the effects of low health literacy through clear communication approaches. We hope that this prioritized list will help serve as an impetus for comparative outcome studies to further identify which health literacy and clear communication practices will be of most value to patients.

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Q-sort points (9 = most important, 1 = least important)								
Group 1			Group 2			Group 3		
9	8	7	6	5	4	3	2	1
P1. Consistently avoids using medical "jargon" in oral and written communication with patients, and defines unavoidable jargon in lay terms 6.9 (1.2)	P2. Routinely uses a "teach back" or "show me" technique to check for understanding and correct misunderstandings in a variety of health care settings, including during the informed consent process 6.9 (1.3)	P5. Routinely recommends the use of professional medical interpreter services for patients whose preferred language is other than English 6.0 (1.9)	P9. Routinely ensures that patients understand at minimum: 1) what their main problem is, 2) what is recommended that they do about it, and 3) why this is important 5.9 (2.1)	P14. Routinely conveys numeric information, such as risk, using low "numeracy" approaches, such as through examples, in oral and written communication 5.5 (1.5)	P20. Consistently follows principles of easy-to-read formatting when writing for patients, including the use of short sentences and paragraphs, and the use of bulleted lists rather than denser blocks of text, when appropriate 4.8 (1.6)	P25. Routinely conducts medication reconciliation with patients, including use of "brown bag" medication reviews, when called for during regular duties 4.0 (1.3)	P29. Consistently writes or re-writes ("translates") unambiguous medication instructions when called for during regular duties 3.4 (1.7)	P32. Consistently treats the diagnosis of limited health literacy as "protected health information" requiring specific "release of information" for disclosure 2.5 (1.4)
	P3. Consistently elicits questions from patients through a "patient-centered" approach [e.g., "what questions do you have?", rather than "do you have any questions?"] 6.2 (1.2)	P6. Consistently negotiates a mutual agenda with patients at the outset of encounters 6.0 (2.0)	P10. Routinely uses short action-oriented statements, which focus on answering the patient's question, "what do I need to do" in oral and written communication with patients 5.8 (1.1)	P15. Routinely makes instructions interactive, such that patients engage the information, to facilitate retention and recall 5.4 (1.9)	P21. Routinely uses analogies and examples, avoiding idioms and metaphors, to help make oral and written information more meaningful to patients 4.6 (1.4)	P26. Routinely documents in the medical record that a "teach back," or closed communication loop technique has been used to check the patient's level of understanding at the end of the encounter 3.9 (1.4)	P30. Routinely refers patients to appropriate community resources for enhancing literacy and/or health literacy skills [e.g., Adult Basic Literacy Education] within the context of the therapeutic relationship 3.2 (1.8)	
	P4. Consistently uses a "universal precautions" approach to oral and written communication with patients 6.2 (2.6)	P7. Routinely emphasizes one to three "need-to-know" or "need-to-do" concepts during a given patient encounter 6.0 (2.1)	P11. Consistently locates and uses literacy-appropriate patient education materials, when needed and available, to reinforce oral communication, and reviews such materials with patients, underlining or highlighting key information 5.7 (1.2)	P16. Routinely elicits patients' prior understanding of their health issues in a non-shaming manner [e.g., asks "what do you already know about high blood pressure?"] 5.3 (1.6)	P22. Routinely assesses adherence to treatment recommendations, and root causes for non-adherence, non-judgmentally, before recommending changes to treatment plans. 4.5 (1.9)	P27. Routinely puts information into context by using subject headings in both written and oral communication with patients 3.9 (1.4)	P31. Routinely encourages and facilitates patients to carry an updated list of their medications with them 3.1 (1.1)	
		P8. Consistently elicits the full list of patient concerns at the outset of encounters 5.9 (2.1)	P12. Routinely uses verbal and non-verbal active listening techniques when speaking with patients 5.7 (1.7)	P17. Routinely selects culturally and socially appropriate and relevant visual aids, including objects and models, to enhance and reinforce oral and written communication with patients 5.2 (1.7)	P23. When preparing to educate patients, routinely asks about patients' preferred learning style in a non-shaming manner [e.g., asks "what is the best way for you to learn new information?"] 4.3 (2.0)	P28. Routinely writes in English at approximately the 5 th -6 th grade reading level 3.6 (1.7)		
			P13. Routinely "chunks and checks" by giving patients small amounts of information and checking for understanding before moving to new information 5.6 (1.6)	P18. Routinely anticipates and addresses navigational barriers within health care systems and shares responsibility with patients for understanding and navigating systems and processes; attempts to make systems and processes as transparent as possible 5.1 (2.2)	P24. Routinely arranges for timely follow-up when communication errors are anticipated 4.2 (1.7)			
				P19. Consistently speaks slowly and clearly with patients. 5.0 (1.7)				

Table A. Q-sort grid with ranked health literacy practices in order of mean rating (standard deviation) by 25 expert participants. P = practice item.