



Poster Presentations

IHA's Eighth Annual Health Literacy Conference "Health Literacy: Bridging Research and Practice"

**May 7-8, 2009
Irvine, CA**

Following are abstracts from posters accepted for presentation at the Eighth Annual IHA Health Literacy Conference, May 7-8, 2009. Posters marked with an asterisk (*) were accepted but the project team was not in attendance to present at the conference.

Doing the Right Thing for the Patient through Health Literacy Education

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Presenter(s) biography

Lisa Alexander has a Bachelor of Arts Degree in Psychology from Hampton University and a Masters Degree in Public Health from the University of Pittsburgh. Upon the completion of graduate school, Lisa took a position at the Prince George's County Health Department under the Center for Healthy Lifestyle Initiatives (CHLI) program, where she served as a Outreach Coordinator for 2 1/2 years. After which, Lisa took a position with Kaiser Permanente Mid-Atlantic Region as a project manager for prevention within the Population Care Management Department, where she has worked for the past 7 months with current projects centered on cancer screenings, pediatric care, immunizations, infectious diseases and HIV/AIDS. Lisa thoroughly enjoys her work in prevention and always looks forward to opportunities to promote health education.

Project Description

Kaiser Permanente of the Mid-Atlantic States (KPMAS) provides culturally competent, affordable healthcare to over 480,000 members in the Northern Virginia, Washington DC, Southern Maryland and Baltimore area. Our members have the option of care from 29 Kaiser medical centers, which offer services such as primary care and specialty care, including health education programs and nationally recognized programs in diabetes, cardiovascular disease and asthma. Though we provide accurate and reader-friendly health education materials to our members, we still face the crippling impact of low health literacy in our region. The National Center for Education Statistics estimates that 33% of people in the United States are marginally or functionally illiterate.¹ The affects of low literacy is sobering and constantly requires the collective efforts of physicians, nurses and health educators to convey vital health information to our patients in a way they understand. In recognition of this problem, the Population Care department took action by developing materials, guidelines and trainings that would help improve communication with patients. Our approach to improving communication with patients is by employing some of the following materials, tools, and programs to address low health literacy. Material Guidelines: The purpose of the material guideline is to provide recommendations for developing health education materials. Currently used as our standard tool of measure, the document contains a readability checklist for layout, content and graphics; recommendations and tips for formatting materials; as well as other sources of information, tools and text inserts. In-service meetings: On an annual basis, pharmacists, nurses, registered dietitians, and health educators meet to define the impact and determine the at-risk population for low literacy as well as identify strategies to help improve communication with their patients. The course expressed the importance of using Visual Aids, Teach Back techniques, Ask Me 3, and others tools, to foster a comfortable learning environment where people at low literacy levels can ask questions and gain clarification on topics they do not comprehend. TV Turnoff Week: Every

year thousands of schools, libraries, and community groups nationwide join Kaiser Permanente in encouraging millions of Americans to turn off their TV sets, computers, and videos games during National TV Turnoff Week. During the week, all KPMAS medical centers turn off waiting room televisions and offering reading materials while patients wait for their appointment. KPMAS Educators Trainer Competencies Program: Due to our role on the Regional Learning Council's Trainer Competency Subcommittee, we developed competencies for all individuals within KPMAS who deliver training or education to either KP members or staff in order to standardize our process for teaching adult learners. Conversation Maps: Cited as one of our most effective tools, Conversation Maps are interactive tools used in our diabetes self-management class, InSTEP for Diabetes. They give participants an opportunity to engage in discussion with a health professional and other diabetics to address questions, discuss concerns and learn how to modify their lifestyle in order to manage their diabetes. The desired outcome is that newly diagnosed diabetic members will significantly reduce their A1C levels, improve their lifestyle habits, and increase overall knowledge of diabetes-through our use of clear, simple and positive health education tools.

Target Population The most effective patient communication occurs on the front line. Therefore, we create tools and materials that focus on improving the health literacy competencies of our pharmacists, diabetes educators and registered dietitians.

Outcomes/Impact:

Our approach to low literacy yielded some of the following results: . To date, over 400 health education materials, designed with the input from our health professionals, are available to members through their healthcare teams or by visiting our website. . Several medical departments now request assistance with the development of content for their in-reach and outreach efforts. We develop materials at a 6-grade reading level for medication adherence materials and direct mailings to members. . In-service meeting participation has greatly increased, due to positive feedback from previous attendees. Over 35 of our registered dietitians, nurses and pharmacists attend the 2008 meeting. . All diabetes educators are trained and confidently implementing the Conversation Maps in the InSTEP for Diabetes classes. Data from our participant evaluation will be ready in April 2009.

Implications for Policy, Delivery or Practice

Patient safety and patient-centered care are major priorities for KPMAS and they depend on our ability to communicate with cultural competence and provide information and tools patients can use regardless of their level of literacy. By working with our front line-particularly our healthcare providers and health educators -we have the opportunity to reach our patients at their level of comfort and empower them to take an active role in their health and wellbeing.

Assessment of Health Promotion Model Measures for Use with Sheltered Homeless Women

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Presenter(s) biography

Ms. Ballard is a doctoral candidate at the School of Nursing, University of North Carolina @ Greensboro. She evaluated the measures that have been used with Pender's Health Promotion Model for use with sheltered homeless women in North Carolina and used the measures in her dissertation.

Project Description

Background: Homelessness is rapidly growing in the U.S. and is challenging society and the health care system. Homeless persons are at a greater risk for acute and chronic mental and physical health problems than people with permanent dwellings. Homeless women, often found in community shelters, have health problems that may have led to their homelessness, but they also are faced with many health issues as a result of being homeless. While previous research has examined illness and barriers to illness care of homeless women, there is a gap in scientific knowledge relevant to the health-promoting behaviors of homeless women and factors associated with these behaviors. If factors associated with health-promoting behaviors of sheltered homeless women were known, health professionals could better develop interventions to improve health promotion in this unique population and advocate for legislative policy changes and money to support programs to meet the women's health-related needs. Surveys have been developed to measure lifestyle behaviors and factors associated with these behaviors, but there is no information available to support their use with homeless women. Purpose: The purpose of the study was to assess a questionnaire for readability, clarity, and ease of administration for use with homeless women in North Carolina. Methods: A convenience sample of 25 homeless women living in shelters was recruited by flyers placed in 3 shelters. Qualitative data were collected using a structured interview developed by the investigator to assess/ elicit data about the potential literacy, difficulty, and acceptability of the Health Promoting Lifestyle Profile II (HPLPII, Walker et al., 1995), Self-Rated Abilities for Health Practices Scale (SRAHP, Becker et al., 1993), and a Personal Health Form (PHF, adapted from the BRFSS, 2006) by homeless women.

Target Population A convenience sample of 25 homeless women living in shelters was recruited.

Outcomes/Impact:

Results: The questionnaire was answered in 10 to 45 minutes. Only one participant stated she thought the questionnaire took too much time (25-30 minutes) to answer. One participant stated she did not know the meaning of "target heart rate" in relation to exercise and another participant was not familiar with the word "intimacy". One participant wanted to know why "Black or African American" was used to identify race. Another participant stated she found it offensive to

be asked about age. Suggestions for adding to the demographic sheet included adding prison and another shelter to the list of where participant lived prior to present shelter. Two participants found it difficult to distinguish between the words often and routinely and suggested that "always" be substituted for "routinely". Questions that were identified as confusing were 15 and 37 on HPLP II. Questions 4, 28, and 37 were identified as "overlapping." Conclusions: Overall, the women found the questionnaire easy to read, clear, and easy to follow.

Implications for Policy, Delivery or Practice

The Health Promoting Lifestyle Profile II (HPLPII, Walker et al., 1995), Self-Rated Abilities for Health Practices Scale (SRAHP, Becker et al., 1993), and a Personal Health Form (PHF, adapted from the BRFSS, 2006) are appropriate for use with sheltered homeless women in North Carolina. The measures were used in a larger dissertation study that examined health promoting behaviors of sheltered homeless women, and results will be presented.

An Evaluation of “Sweet Temptations” a Fotonovela for Diabetes Education targeting Low-literate Latinos

Project Dates: November 5, 2007 – November 8, 2007

Project Team: Melvin Baron, Pharm.D., Gregory B. Molina, B.A., Victoria Serna, MPH, CHES, Nai Kasick, MPH, CHES, Jennifer B. Unger, Ph.D., Sandra Contreras, MPH

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Background of the Project:

The Latino/Hispanic population in the United States suffers from very high rates of Type 2 diabetes. According to the Centers for Disease Control and Prevention (CDC) the prevalence of diabetes is approximately two times higher among Hispanics than among non-Hispanic whites. A genetic tendency to develop insulin resistance and abdominal obesity, along with multiple nutritional, lifestyle, socio-economic and cultural factors influence the development and course of Type 2 diabetes among Latinos. Unfortunately, Latinos have lagged behind Whites in preventative health behaviors, diabetes screening, and adherence to diabetes treatment regimens. Although some Latinos have a good understanding of the causes, risk factors and treatment of diabetes, many lack complete knowledge or hold erroneous beliefs about the disease. Some of these beliefs include the belief that insulin is the cause of some of the complications of diabetes such as blindness and that diabetes is not preventable and may be caused by sudden frights. Cultural and language barriers can prevent healthcare providers from successfully educating Latinos about effective prevention and treatment of diabetes (Cabellero, 2006). Culturally competent education and outreach interventions are needed to help Latinos learn about diabetes and adopt diabetes-preventive habits (Whitmore, 2007).

A fotonovela is a dramatic comic book story composed of photographs and captions that represent a popular entertainment medium in the Latino community. The project team chose to develop a fotonovela entitled “Sweet Temptations” that would communicate a health education message about diabetes and would be culturally and linguistically appropriate for the Latino population. The fotonovela was written below the 6th grade reading level targeting low literate Latino audiences. The fotonovela was printed in Spanish and English to appeal to bilingual audiences as well. Fotonovelas have the potential to be an effective health education tool because they are attractive, engaging, can use role models to demonstrate desirable behaviors, and have the potential to communicate information to low-literate audiences. “Sweet Temptations” is about Ramon Mendoza, a Latino middle-aged man with diabetes and his family’s struggle to gain control over his disease and their own unhealthy lifestyles.

Target Population: Low-literate adult Latinos of low socioeconomic status

Project Description:

The objectives of the study were to evaluate the fotonovela entitled “Sweet Temptations” for its ability to increase diabetes knowledge and induce diabetes-prevention behaviors in its readers. Participants in the evaluation study were students at a local adult school in East Los Angeles. A study population of 311 students participated in the study during their evening classes. Students who agreed to participate completed a pre-test survey about their demographic

characteristics, diabetes knowledge, and intentions to perform diabetes-preventive behaviors. Surveys were available in Spanish or English. After reading the fotonovela, they completed a post-test survey with the same knowledge and intentions questions and additional questions about their specific reactions to the fotonovela. A diabetes knowledge scale was created for this study, with items assessing the facts that were intended to be conveyed by the fotonovela. Behavioral intentions were assessed with four questions addressing diet, exercise, seeking medical care and discussing diabetes with family members. Demographic covariates included age, gender, ethnicity, marital status, education, language spoken at home and health insurance status.

Outcomes/Impact:

The study reported that 100% of the 311 participants found the fotonovela to be informative, while 90% thought it was the right size, 87% thought it had an attractive cover, 86% thought it was entertaining, and 86% thought it was the right length. Change in diabetes knowledge was increased from 66% pre-test to 86% post-test. Behavioral intentions such as the intention to exercise more, eat more fruits and vegetables, and talk to doctors and family about diabetes were moderately high (averages of 3.2-3.6 on a 4-point scale) at pre-test and significantly higher (3.7-3.8 on a 4-point scale) at post-test. The study's findings provided statistically significant evidence that the fotonovela, "Sweet Temptations" can be a useful medium for health education among Latinos that in turn may improve their health literacy.

References:

- Cabellero, A.E. (2006). Building Cultural Bridges: Understanding Ethnicity to Improve Acceptance of Insulin Therapy in Patients With Type 2 Diabetes. *Ethnicity and Disease*, 16: 559-568.
- Whitmore, R. (2007). Culturally Competent Interventions for Hispanic Adults with Type 2 Diabetes: A Systematic Review. *Journal of Transcultural Nursing*, 18: 157-16

A Way with Words: Guidelines for Writing Oral Health Materials for Audiences with Limited Literacy

Ruth Barzel

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Presenter(s) biography

Ruth Barzel is senior editor at the National Maternal and Child Oral Health Resource Center at Georgetown University. Ms. Barzel received her B.A. in English from the University of Washington and her M.A. in creative writing from the University of Houston. Ms. Barzel writes and edits materials produced by the resource center, handles copyright questions and the permissions process, and provides editorial direction. Ms. Barzel's special area of interest is health literacy.

Project Description

This poster is based on a fact sheet that provides ideas to help those who produce oral health educational materials make materials easier for individuals with limited literacy to read. The fact sheet offers easy-to follow techniques to make writing clear; create effective sentences, paragraphs, lists, and headings; and explain technical or unfamiliar terms. The fact sheet also contains a list of resources.

Target Population Organizations or individuals who produce oral-health-related materials.

Outcomes/Impact: The intended outcome of this fact sheet is to help make oral health materials more accessible to audiences of all reading levels.

Implications for Policy, Delivery or Practice

Producing oral health materials that clearly and simply communicate concepts is key to improving oral health, especially among underserved populations. If the guidelines provided in this fact sheet are followed, oral health materials will become more accessible to consumers, especially those with limited literacy skills. As a result, preventive oral health practices will improve, resulting in better oral health and an improved quality of life for our nation's families.

Using the Internet to Outreach to Multilingual Populations: Helping Expand Access to Family Planning Services for Californians with Limited English Proficiency

PROJECT DATE: January, 2008 to the present

PROJECT TEAM: Donna Bell Sanders, MPH, Veronica Estrella Murillo, MPH and Robin Lowney Lankton, MPH all of California Family Health Council, Inc. in collaboration with Laurie Weaver, Chief of Office of Family Planning, Department of Public Health, California.

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BACKGROUND OF THE PROJECT:

California is being dramatically reshaped by immigration. Access to high quality information is essential for immigrants and all Californians struggling to find needed family planning services as well as to learn more about their reproductive health. The barriers to access are particularly acute for people with Limited English Proficiency. Thus, the Office of Family Planning's Family PACT (Planning, Access, Care, and Treatment) Program, has responded to the changing demands and expectations of California's multilingual populations by introducing an innovative, new multilingual website.

TARGET POPULATION:

Family PACT clients and others who need basic information on Birth Control and Reproductive health in 6 different languages: English, Spanish, Chinese, Korean, Vietnamese, and Russian.

PROJECT DESCRIPTION :

The website features information on how clients can access Family PACT services; provides basic information on birth control methods and STIs; and highlights various websites and helpful client health education materials on other topics. The website outreaches to family planning clients in 6 different languages: English, Spanish, Chinese, Vietnamese, Korean, and Russian. Participants in the poster session will be able to:

- List the steps needed to develop a website for multilingual populations.
- Analyze the relationship between access to information services and access to health and health-related services.

OUTCOMES / IMPACT:

Family PACT, as a publicly funded system, provides access to services for 1.5 million Californians every year. These family planning services are provided on the basis of need, not the ability to pay. This new website is one more way the Office is meeting the needs of California's diverse populations.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

This presentation will explain and discuss the practical aspects of marshalling such an effort and emphasizes the importance of pre-testing and providing culturally appropriate information to potential family planning clients. Implications for best practices in the design and management of information services aimed at multilingual populations include an increased capacity for a

broader outreach to vulnerable, underserved populations; ability of family planning providers to use the web as a teaching tool for clients; and the empowerment of populations typically lacking in website information and access.

Egal Shidad—Multimedia Mental Health Literacy and English Language Learning (ELL) Resources for Somali Adults.

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Presenter(s) biography

Susan Bockrath is the English Language Learning (ELL) Partner to the Egal Shidad Project and the Health Literacy Coordinator at the Lincoln Literacy Council in Nebraska where she designs, oversees, and teaches health literacy classes for adult ELLs. Previously, she directed a social service agency for migrant farmworkers and worked for several years evaluating health and education programs serving language minority communities. Susan holds Master's Degree in Public Health Education from Emory University.

The Egal Shidad Project is a partnership between the Confederation of Somali Community in Minnesota, three media organizations (ECHO Minnesota, KFAI Community Radio, and Saint Paul Neighborhood Network), and an ELL-health literacy consultant. Together, partners have developed interrelated, web-based health education media and resources that build mental health literacy in the Somali community. Primary among these resources are an hour-long video program about mental health and a corresponding collection of English language acquisition activities.

The hour-long video stars Egal Shidad, a humorous character from Somali folktales. The Somali audience's familiarity with Egal helps to "break the ice" around the stigmatized issue of mental health. In the video, Egal's story illustrates how a family can work together to identify and confront mental illness. The story follows efforts to gather advice and information about mental health from Somali community members, religious leaders, a traditional healer, and from two mental health professionals who work with Somali's. The video originally aired on television in Minneapolis-St. Paul in October 2008 followed shortly thereafter by two call-in radio programs, in Somali, devoted to mental health.

The Egal Shidad Project has also developed English Language Learning (ELL) activities to be used in conjunction with the mental health video and other project media—all of which are available at <http://newroutes.org/projects/egalshidad>. The ELL activities address the health literacy constructs of knowledge and communication. Their objectives are to (1) develop adult Somalis' knowledge related to mental health and mental healthcare *and* (2) develop their English language communication skills specific to mental health. Lessons rely on students viewing and reviewing key segments of the Egal Shidad mental health video, thereby increasing exposure to the content. Students build mental health-related English language skills through activities that incorporate the language acquisition domains of listening, speaking, reading, and writing. As examples: student listen to short clips of an English-speaking provider's interview and identify and discuss key vocabulary they hear; students engage in dialogs based on conversations

between characters in the video; students read English transcripts of a sheikh's and an mental health provider's advice and answer comprehension questions; students complete cloze activities based on key points made in the video.

The Egal Shidad Project resources available at project website have been used to and are available to continue to build mental health literacy in a variety of settings: individuals listening to a car radio, families watching television, group English classes, and presentations at community health fairs and festivals to name a few. Although these media and ELL materials reference Somali cultural ideas and icons, many of their messages and language acquisition activities are relevant to other immigrant and ELL populations. These resources can also inform interested receiving community members.

Poster Objectives: This poster presentation will (1) describe the Egal Shidad Stories of Somali Health Project, (2) outline the health literacy goals, objectives and content of the Egal Shidad ELL Activities, (3) explain how selected lessons can be used for non-Somali's and (4) demonstrate the online Egal Shidad ELL Activities and accompanying media.

Outcomes:

The Egal Shidad Stories of Somali Health project just completed its first production year. The mental health television broadcast and two related call-in radio shows (all in Somali) aired in October 2008. ELL materials were piloted with Somali students at a community-based literacy center in Minneapolis in January 2009. The video and lessons were well-received by students and teachers who offered useful feedback that was incorporated in the final ELL materials and that are informing production during year-two. All mental health-related media and lesson materials from year-one are available online at <http://newroutes.org/projects/egalshidad>. Via the project website, over 300 individuals/organizations (located all over the US and as far away as Sweden and South Africa) have requested the Egal Shidad mental health DVD. Efforts to advertise and collect feedback on the project media, resources, and ELL materials are ongoing via the New Routes to Community Health website and blog.

Implications for practice:

The Egal Shidad Project is a community-driven effort to identify and address pressing health education needs in the Somali community, specifically in Minnesota. However, the nature of the Somali diaspora makes the project materials relevant to Somalis elsewhere—as evidenced by the demand for Egal Shidad materials across the US and internationally. This model of creating web-based, multimedia health literacy resources tailored to a specific cultural group can be a useful method of addressing health concerns of communities, even those scattered across the globe. Addressing health information in English classes helps to engage and retain adult learners because such classes simultaneously address two topics that immigrant learners universally recognize as important. However, a limitation of such work is that it can place a language instructor in the difficult position of appearing to their students as a source of health information themselves. The Egal Shidad project provides an effective model for enabling English instructors to stay within their expertise while addressing important health content with their students. Since all lesson content is derived directly from the Egal Shidad video, the video serves as an expert presenter—helping to clarify the line between the language acquisition expertise of an English instructor and the health education expertise of the video. This dynamic protects the

English instructor from being viewed as the messenger of content that some of his/her students may find difficult or offensive it also limits the expectation that the English teacher will be able further elaborate on content (that they often are not trained in).

Multi-tasking for Cross Cultural Health Literacy: Combining adult English language instruction and health education.

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Presenter(s) biography

Susan Bockrath currently works as the Health Literacy Coordinator at the Lincoln Literacy Council in Nebraska and as the English Language Learning Partner to the Egal Shidad Project in Minnesota. Previous work includes directing a social and legal service agency for migrant farmworkers in Missouri before spending several years as an evaluator for health and education programs serving language minority populations in the Northeast. Susan holds Master's Degree in Public Health Education from Emory University.

Project Description

Since the 1970s, Lincoln, Nebraska has been in the top tier of U.S. cities receiving immigrants and refugees from Asia, Latin America, East Africa, the Middle East, and Eastern Europe. Today, the local population of immigrant newcomers is estimated at over 25,000 with over 100 different languages spoken in the homes of Lincoln's public school children. The Lincoln Literacy Council (LLC) addresses English language acquisition needs of over 700 adult immigrant newcomers each year, relying on over 200, ProLiteracy-trained, community volunteers supported by a small agency staff. Since 2006, LLC has served over 250 immigrant, adult, English language learners (ELLs) in health literacy programs that combine English language and literacy instruction with basic health education. The goals of these classes are to build students' health knowledge-especially related to preventive behaviors which can be engaged in regardless of insurance status-while also building students' related English language skills. With the assistance of interpreters, health practitioners and/or health educators deliver bilingual health content for roughly 30 minutes of each two-hour health literacy class. Classes run either weekly during the school-year, or for 12-week evening sessions. Students gain knowledge connected to nutrition, physical activity, oral health, appropriate use of the health care system, and other health content. LLC has developed and used a Health Status Survey tool to measure student health literacy based on our program objectives. In addition to helping LLC evaluate its program, this tool (coupled with in-class health screenings) allows us to tailor each class's curriculum to address health issues or concerns prevalent in a specific student group. The health information presented as part of each class provides the content for the 90 minutes of English tutoring that follow. Tutors engage students in activities that incorporate the language acquisition domains of listening, speaking, reading, and writing. Tutors tailor their lessons to their students' skill-level-building from activities developed by LLC and from other appropriate lesson resources and curricula. To the extent they are able, students listen, talk, read, and write about the health topic of the day.

Poster Objectives: This poster presentation will (1) outline the structure and content of LLC's health literacy program and curriculum, (2) describe how key stakeholders (students, tutors,

community partners) benefit from this health literacy program, (3) describe lessons learned during the 2+years that LLC has been implementing its health literacy program, (4) list examples of lesson activities and resources used in this health literacy program.

Target Population Adult English Language Learners from Sudan, Burma, Mexico and Guatemala, Iraq, Afghanistan, Vietnam, and elsewhere.

Outcomes/Impact:

Students: Since 2006, LLC has served over 200 health literacy students from Sudan, Burma, Mexico and Guatemala, Iraq, Afghanistan, and Vietnam. In addition to the obvious cultural diversity between class groups, within groups we see an incredible range in traits such as: formal education experience, English language ability, baseline health literacy, etc. LLC has assisted students with acute medical needs and helped place students in a medical homes. LLC has also helped students improved their language skills, particularly related to describing symptoms and anatomy. Tutors: LLC's health literacy tutors report that they improve their own health literacy by way of participating the health content presentations. Noting that tutors sometimes struggled to deal with the health questions that naturally arise in a class of this nature, LLC developed guidelines and a well-received training specific to health literacy tutoring. Partners: LLC partners successfully with health care providers and other community based organizations to implement its health literacy programs. The mutual benefit of these collaborations-outreach and access to immigrant students, leveraging financial and in-kind support, and sharing expertise in different domains-is clear to LLC, its partners, and within adult ESL literature. LLC's health care community partners also report that presenting to and working with the range of cultural and linguistic student groups has increased their cultural competence.

Implications for Policy, Delivery or Practice

Addressing health information in English classes helps to engage and retain adult learners because such classes simultaneously address two topics that immigrant learners universally recognize as important. When community-based literacy centers and local health care providers partner to offer ELL health literacy classes, the partnership benefits all stakeholders: students improve their language skills and health knowledge; literacy center tutors and instructors improve their own health literacy; and community partners (1) gain access to and increase their cultural competence related to immigrant student groups, (2) leverage financial and in-kind support together, and (3) share expertise in different domains. These multiple benefits should be highlighted when considering similar programs in other communities.

Providing Tobacco Education while Teaching Basic Literacy Skills: An Innovative Model for Reaching Young Adults

** Did not attend/present*

Martha Bradley, MS

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Presenter(s) biography

Martha Bradley, MS has 15 years experience in public health, disease prevention and health promotion ranging from coordinating a statewide public education and outreach campaign targeting low income women to developing community education programs for a local hospital. She has developed and delivered training statewide to NH physicians, dentists and allied health professionals to provide evidence-based tobacco treatment to their patients.

Project Description

Young adults with low household incomes and less than a high school education-population groups at high risk for smoking-related illness-are precisely the populations served by adult basic education (ABE) programs. The ABE system is well positioned to be an active partner in helping reduce tobacco and health disparities. Adult educators understand that literacy develops more effectively when situated in a specific context of interest to students such as personal or family health, while health literacy research indicates that people with limited reading skills are poorly informed about the health effects of tobacco use and resources for cessation. ABE programs thus hold great promise for delivering tobacco education to a young adult population that is both more likely to use tobacco, and less likely to understand its hazards. JSI Research & Training Institute, Inc. (JSI), a public health consulting firm headquartered in Boston, MA, along with its NH office, the Community Health Institute, collaborated with adult education programs in New Hampshire to develop and field test a series of tobacco education lessons for adult learners in ABE, GED and high school diploma programs. The project was funded by the American Legacy Foundation as part of its Small Innovative Grants Initiative. The project's goal was to bring accurate and compelling information on tobacco use health effects and cessation resources to a young adult population with both high rates of tobacco use and low levels of tobacco knowledge, through a channel not traditionally utilized by tobacco educators.

The project objectives were:

- 1) adult learners would increase their knowledge of the health effects and other impacts of tobacco use and of cessation resources.
- 2) adult learners would rate the lessons as useful for learning about tobacco use hazards AND for improving reading/writing and math skills, and
- 3) participating teachers would indicate their intention to use the lessons again in future adult education classes.

JSI worked with the New Hampshire Department of Education, Bureau of Adult Education to recruit four adult education programs to pilot test a set of three tobacco education lessons in adult literacy education classrooms. Adult education instructors taught the lessons with students during

regularly scheduled class time. Both teachers and students were given multiple opportunities to provide feedback and suggestions regarding the utility, efficacy, and relevance of the lessons. The stand-alone lessons were designed to fit easily into key segments of the standard adult education curriculum, such as language arts and math, simultaneously facilitating the development of core literacy skills and conveying essential information about the hazards of tobacco use. The lessons and all related materials were created by JSI health educators in consultation with an advisory group of New Hampshire adult education teachers and adult learners. All lessons were developed in accordance with adult learning theory, and included information on how to access tobacco cessation resources. The lessons were designed to be participatory, to provide basic skills practice, and to convey tobacco and health information relevant to all students, both smokers and nonsmokers.

Target Population The target population for the project was low income young adults between the years of 18 - 25 with less than a high school education.

Outcomes/Impact:

For participating adult learners, evaluation findings showed significant gains in understanding of tobacco use dangers and secondhand smoke exposure health effects, and in knowledge of local smoking cessation programs. Half of the adult learners indicated that they had shared knowledge about the dangers of smoking with family members and others in their communities. As for the instructors, all said they would use the lessons again in their adult education classes. Adult learners and teachers agreed that the lessons were useful for building, practicing and reviewing basic skills in language arts, math and Internet research. The lessons were disseminated to adult literacy instructors and tobacco educators nationwide via professional listservs and the Health & Literacy Special Collection (www.healthliteracy.worlded.org), a website that provides instructional resources and easy-to-read health information to ABE teachers and health educators. Workshops on the project were offered at the ME and NH Annual Adult Education Conferences in 2008 and at the 6th Biennial Conference of the Moffitt Cancer Center, Cancer, Culture and Literacy. A poster session on the project will be presented at the Tobacco or Health Biennial Conference in June 2009.

Implications for Policy, Delivery or Practice

Delivering tobacco information via adult education classes represents an innovative, highly targeted and replicable strategy for providing individual and community education around tobacco use hazards and how to obtain quit-smoking assistance. While this project focuses on the health effects of tobacco use, education on many other health topics could be provided via this model which uses health examples to teach basic literacy skills. This model allows for the easy integration of health information and health literacy promotion into ABE and GED classes.

The Five Rights of Patient Education

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Presenter(s) biography

Danene received a Bachelor in Art and Master of Science in Education from Southern Illinois University Carbondale. She received her Bachelor in the Science of Nursing from Saint Louis University and is completing her Doctorate in Philosophy from Walden University. She is also board certified in staff development and as a health education specialist. Presently Danene is a Professional Clinical Educator/Patient Education Specialist at Advocate Lutheran General Hospital. In her dual role she develops education for nurses regarding patient education, and teaches orientation classes. She also maintains the patient education computer system for the hospital and plans hospital wide education for nurses regarding patient education and health literacy.

Project Description

Throughout literature health literacy and patient education has been shown to have an impact on the health outcomes of patients in healthcare settings. This poster presentation was conceptually designed to translate the Five Rights of Patient Medication Administration (The Right: Patient, Medication, Dose, Route and Time) into the Five Rights of Patient Education (The Right: Patient, Education, Amount of Education, Presentation of Education and Timing of Education). The conceptual lecture/poster meshes adult learning principles and health literacy principles with patient education materials. Considerations for each of the "Five Rights" are discussed in detail, to assist in the design and development of educational materials. When these avenues of education and health literacy are properly addressed, patients receive tailored education that assists in positive health outcomes.

Target Population Target Population: This poster board presentation information pertains to any health care provider or educator developing education materials for patients and their families.

Outcomes/Impact:

Purpose/Goal: To illustrate the importance and impact of health literacy in patient education materials

Implications for Policy, Delivery or Practice

The ability to recognize the "silent epidemic" of low literacy skills in our patients directly affects the health outcomes of our patients. As healthcare providers we follow standards such as "universal precautions" and the "five rights to safe medication administration" in order to protect and keep our patients safe. This poster presentation offers a different perspective in adapting these standards to the development of patient education materials using health literacy strategies.

An Innovative Model for Success in Patient-Centered Navigation-What Our Research Shows

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Presenter(s) biography

David Correa, RN, Adm. Dir., University Family Health Center--Southwest, has responsibility for 50,000 patients on San Antonio's west side. At UHS he has served as emergency room staff nurse and patient care coordinator, telephone triage manager, acute care clinic supervisor, and director, patient satisfaction. He orients every new UHS employee in cultural, linguistic, and literacy awareness. He received the NurseWeek Nurse Excellence 2004 Award for Patient Advocacy.

PROJECT DATES: 2007-present

PROJECT TEAM: Multi-disciplinary staff from University Health System, including Grants and Applied Research, Outcomes and Evaluation, Pharmacy, Administration, Health Education, Learning Resources, and CareLink; University of Texas Health Science Center at San Antonio Patient Navigators

BACKGROUND OF THE PROJECT: This project draws upon the work of Dr. Rima E. Rudd in *The Health Literacy Environment of Hospitals and Health Care*, regarding the impact of patient navigation as a critical element in making a healthcare facility literacy-friendly. The multi-disciplinary project team implemented a study on the barriers related to healthcare access and navigation, focusing on the entrance, lobby, signs, postings, hallways, ease of navigation, staff assistance, service and specialty areas (medical records, pharmacy, etc.) and the telephone system. Mystery shoppers, using an environmental assessment tool based on Dr. Rudd's work (adapted for this clinic), assessed the above mentioned environmental components. Survey results demonstrated a need for a focused initiative to eliminate literacy-related barriers in this primary care neighborhood clinic.

PROJECT DESCRIPTION: Based on the data attained from the surveys, the project team implemented a multi-year action plan with timelines for making changes to the facility. The project's focus on improvements in the initial phase included: Consistent symbols/graphics (hablamos juntos universal symbols) used on signs throughout the facility. Color-coded hallways to mark paths to and from various sections of the facility. Signs written in English and language of the primary population served (Spanish). Signs in English and Spanish Braille. Reduction of intimidation and confusion through systematic analysis and removal of unnecessary posting, signs, etc. Throughout the process, the team provided updates and solicited feedback from key stakeholders, such as, the Executive staff of the Health System and the Community Advisory

Council. Before any improvements were implemented, they were presented to focus groups for validation.

Target Population According to the Bexar County Community Health Collaborative in 2006, the patients and families of the University Family Health Center-Southwest come from a population that is 90% Hispanic, with fewer than 50% having a high school education, and with a median family income of \$26,000 for a family of four.

Outcomes/Impact:

A survey was designed by the team's researcher to measure the effectiveness of the changes. Survey response rates were high, with more than 100 surveys turned in each month. Respondents indicated: . 87% used the signs in the lobby to find areas they needed to get to . 88% used pictures/symbols that showed what part of the clinic they were in . 94% indicated the signs in the area(s) visited were easy to read . 99% rated as easy or very easy finding the area(s) they needed to visit . 93% rated as easy or very easy finding their way around the clinic Based on the success of this first phase of the implemented changes, the Community Advisory Board wholeheartedly endorsed the project's continuation into the next phases of implementation and the Health System executive staff asked that this model be replicated in all clinics across the System.

Implications for Policy, Delivery or Practice

Navigating a health care facility can be a daunting challenge to those with low literacy skills and/or Limited English Proficiency. Acknowledging the physical complexity of the health care environment and taking steps to simplify navigation can produce a more satisfied patient population. The very act of adding color, using symbols, and reducing unnecessary signs, postings, etc., can send a strong signal to the community that the facility is sensitive to their preferences for clear communication. Patient who are more at ease and less frustrated in accessing care will have a positive impact on a health system's bottom line by empowering people to better health.

More than One: Community-Based Plan to Change Low Health Literacy's Impact in a North Texas Community

Project Dates: September 15, 2008 – ongoing

Project Team: Anita J. Coyle PhD RN, Midwestern State University

Marilyn Massey-Stokes Ed.D, Texas Woman's University

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Target Population: Adults in a rural health care community and providers of healthcare, nursing students, and faculty.

Background of the Project Nurses returning to the university for their Baccalaureate Degree selected health literacy and understandable health communication as one of the most important indicators of patient care and safety. The students' experience and awareness of their community's lack of health literacy initiated this project. Throughout the student's planning process it was evident that the success of the project was dependent upon more than one community partner. The students found that the project was strengthened by this community participative approach. Two goals began the community-based project: 1.) Increase awareness of low health literacy's impact on the community's health and 2.)

Establish health literacy principles as the standard in written and spoken health communication. Participatory planning has been described as systematic inquiry with the collaboration of those affected by the issue for purposes of education and action effecting change. University faculty and students invited community members of organizations to partner in the project. The consequence of the inability to read, understand, and apply health information in the community was evident as confirmed in the February 2009 report from the *Annals of Internal Medicine*. "Patients, who have a clear understanding of their after-hospital care instructions, including how to take their medicines and when to make follow-up appointments, are 30 percent less likely to be readmitted or visit the emergency department than patients who lack this information." (Jack, et al., 2009), The AHRQ-funded study found that total costs (a combination of actual hospitalization costs and estimated outpatient costs) were an average of \$412 lower for the patients who received complete information than for patients who did not.

Faculty discussion in university nursing courses noted that health literacy is complex involving more than one individual and more than one approach. University students and faculty designed the project to include: nursing students and faculty, adult community members, community service organizations, healthcare providers, and health systems as equals in collaboration. This was achieved with the leadership of the university faculty who served as the central link of the community collaborative. As each step of the project was reached, planned change was discussed and consensus reached before moving forward. Guiding the project to reach the populations who have access to care through private insurance or to reach the populations neither who have little access to care nor a medical home was determined in the beginning of the planning process. Adults who were recent consumers of healthcare were identified and surveyed about their difficulty in understanding health communications. Students interviewed 20 individual consumers who stated that they received health care from a medical home (primary care

physician, community clinic, or private health care provider). These adults reported difficulty in understanding instructions 97% of the time. Additionally, nurses, allied health professionals, and physicians were surveyed about their difficulty in communicating health information, especially in discharge planning and prevention and health promotion messages. Findings revealed that 95% of the health professionals surveyed reported difficulty in communicating health instructions. Those families who had no access to care did require health information to navigate community health resources. Navigating the health systems was established as a community need as well. Medical Staff of an acute care facility requested faculty speak at the year-end medical staff meeting. Health literacy was presented to 160 attendees. Feedback from the participants was surprising. The audience was not aware of the health literacy strategies and current prevalence of individuals with low health literacy throughout the United States. University students participated by sharing current research on the impact of low health literacy on health outcome and cost. The introduction of health literacy as an essential skill was a successful strategy. Next, the project focused upon professional and peer interactions within the collaboration. The university faculty continued a leadership role and was essential in integrating all partners' perspectives and goals into networking with the community. Additional collaboration with acute care systems, home health organizations, rehabilitative facilities, medical supply systems, and pharmacies required clear communication with customers. The integration with policy needs of each organization was not difficult because health literacy was no longer an innovation. A growing awareness had begun. The need for resources was evident. The *AMA Health Literacy Kit* was an important element. The video, a part of the kit, showed East Texas people telling their stories and created an atmosphere that was familiar and real to the project members. Additionally, resources from organizations and web links were utilized in small group education sessions. Whether considering an individual's health outcome or viewing the community's cost related to the lack of health literacy, the burden of low health literacy could no longer be ignored. The final strategies for action, built through participatory planning, engaged the community to assess the readability of health communication. Students were trained by faculty to use SMOG and FLECH readability scales to assess written materials found in the community health care facilities. A variety of materials were assessed. Reading level for 100% of the materials ranged from 6th to above 12th grade. Throughout the project, English was only language considered. Families who spoke and read only Spanish were considered for a future initiative.

Lessons learned by the university participants included: the difference in student-driven and organization-driven change, the need to build a library of resources for Spanish speaking families, and the voices of those individual health care consumers who were affected were essential to the planning, implementation, and evaluation of the project. This community-based project is ongoing through collaborative work establishing a new vision of health literacy from a community perspective to create a community solution. The vision: Where do we want to go in terms of measuring health literacy: Measuring adolescent's health literacy? What policy pursuits remain: Establishing plain language as a standard in the community for health communication and establishing health literacy education as a curricular element in the schools.

Health Literacy and YOU

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Biographies

Linda Crippen, MSN, CRNA has been an anesthetist more than 20 years and a nurse for 33 years. She was introduced to the issue of health literacy while pursuing her MSN. For her graduate school project, Linda sought to initiate a universal approach to health literacy at UPMC St. Margaret Hospital. She brings a fresh outlook and a firm commitment to the topic of health literacy. Linda has spent her career as a hands-on provider.

Bonnie B. Anton RN MN has over 20 years experience as a registered nurse in acute care settings and experience as Adjunct Faculty University of Pittsburgh School of Nursing. She holds a master's degree in nursing as a Cardiovascular Clinical Nurse Specialist. Bonnie is directly involved in the development of cardiology patient education for the UPMC website and has a long time interest in the effects of health literacy on patient care outcomes.

Ruth Tarantine DNP, RN, CCRN is currently an Advanced Practice Nurse at UPMC St. Margaret. She maintains adjunct faculty positions at several Pittsburgh area universities, as well as current faculty at the Winter Institute for Simulation, Education, and Research. Her doctorate research focus is on using Simulation in Healthcare Education

Project Description

Limited health literacy remains unrecognized by many health care providers and unaddressed by numerous health systems. Change is imperative. Health Literacy impacts every patient-provider interaction. Therefore, all providers must understand this issue. A large scale educational effort is necessary.

“Health Literacy & YOU” is an intervention that was implemented at a community hospital and focused on an in-service presentation to both inpatient and outpatient clinical staff. This poster presentation will explain the planning, implementation, content and research results of the “Health Literacy and YOU” interactive in-service that was provided to 161 clinical staff members.

In this research study, 93% of the attendees completed a Likert-scale questionnaire. When looking at the strongly agree and agree responses, 92% reported this was their first educational session related to Health Literacy; 96% reported that health literacy is an issue at this hospital and 97% reported they will change their practice based on information presented at this inservice. These results and other reported data will be explained more fully at this presentation.

Target Population: Clinical staff in an acute health care institution

Implications for Policy, Delivery or Practice

The follow up data received from this presentation demonstrated the clinical staff is now aware, concerned and ready to act on the issue of health literacy.

An Innovative Low Literacy Tool Set for Diabetes Patient Education

**** Did not attend/present***

Project Dates: Initiated Spring 2006

Project Team: Minnesota Diabetes Collaborative (Presenter: Mary Beth Dahl)

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Background of the Project: Minnesota has experienced an explosive growth in non-English speaking residents. These new immigrants and refugees are at high risk for chronic conditions such as type 2 diabetes. Clinicians treating these patients found few low literacy diabetes educational tools and asked the Minnesota Diabetes Collaborative (MN-DC) for help.

The MN-DC involves 15 health care organizations with a stake in improving diabetes care. We initially came together to develop diabetes messages we could all use in communicating to consumers and health professionals. Our combined reach includes most primary care clinicians in the state and over 80 percent of Minnesotans with diabetes.

By meeting monthly since June 2000, we have produced numerous communications, including an award winning “Control your diabetes for life!” exam room poster. Most recently, we transformed the exam room poster into a low literacy educational tool set. A one-page handout uses pictures and very few words (in English, Spanish and Somali) to describe 10 essential self-care activities. A scripted version in the form of a tabletop flipchart is written in “living room” language for health educators and community health workers (CHWs) who themselves may have low English proficiency. We accomplished this with no operating budget and limited expertise in health literacy. The materials have been piloted and are now used in a variety of settings.

Target Population: The low literacy educational tool set addresses two forms of low literacy: poor English reading skills and poor understanding of diabetes and good health practices. Target Minnesota patient populations include Latino and Somali community members, recent immigrants, the deaf and hard of hearing, and the elderly.

The tool set is used by lay health educators and health professionals. These include clinic nurses, medical assistants, case managers, CHWs, social services, parish and home health nurses, local public health agencies, healthy aging programs and community centers. The one-page handout is downloadable at no cost from our website (www.mn-dc.org). We recently reproduced several hundred flip charts for distribution to Minnesota-based health educators.

Project Description :

Outline

- How the MN-DC developed this with few resources:
 - Involved key stakeholders
 - Convened monthly meetings
 - Two individuals shared the bulk of the work
 - Relied on expertise of end users
 - Obtained several small grants to fund production
- Elements of the “Control Your Diabetes for Life!” low literacy patient education tool set

- Handout with graphically illustrated self-care recommendations
 - Tabletop flipchart describing daily self-care activities and their importance
- What makes the tool set valuable as an instructional aid for patients with low English literacy
 - Handout with pictures and few words (translated into Spanish and Somali)
 - Scripted flip chart written in plain language for use by lay educators
- How the tool set can be used
 - For previously diagnosed patients
 - By professional and lay educators with their patients
 - For lay educators who typically have little diabetes training

Outcomes / Impact: A 2008 pilot of the flipchart with clinics, CHWs, diabetes educators and local public health agencies demonstrated that the tool set is effective in facilitating the educational process and helping patients understand how to manage their diabetes. Even patients with good English reading skills preferred the low literacy materials. We continue to assess the tool set's reach, uses, and user satisfaction. A recent focus group with deaf CHWs gave us greater insight into what types of graphics work best for those who communicate visually.

With this effort, diverse partners and even competitors, worked together successfully to achieve common goals. By pooling our resources, each participating organization has seen progress on its priorities from a relatively small investment of staff time. This partnership has provided clear, effective and coordinated messages statewide, and multiplied the impact of our limited resources.

Implications for Policy, Delivery or Practice: Diabetes management is expensive, complex and difficult, especially for people of limited means and for those with a poor understanding of health and/or Western medicine. Clinics that serve these populations also have limited resources and lack low literacy educational tools. The practice implications of this project include affordable patient instructional tools, better educated patients with improved health outcomes and quality of life, reduced diabetic complications, and improved care delivery and health equity due to more effective patient communication. We hope that our collaborative approach can serve as a model for responding effectively to health literacy needs with limited resources.

Health Literacy as a Predictor of Homework Compliance among Patients in Cognitive Behavioral Treatment for Alcohol Dependence

Project Team: Ronda L. Dearing, Rebecca J. Houston, Gerard J. Connors,

Project Dates: Recruitment began in January 2008 for both projects. Recruitment was completed in October 2008 for Study 1 and is ongoing and expected to be complete in March 2009 for Study 2. Follow-up assessments are ongoing for both studies.

Research Institute on Addictions, University at Buffalo, The State University of New York. 1021 Main St., Buffalo, NY 14203

BACKGROUND OF THE PROJECT: Participants were recruited into 2 abstinence-based cognitive behavioral treatment programs via newspaper and radio advertisements. Both NIAAA-funded studies are investigating mechanisms of change during alcohol treatment. Study 1 (PI Connors) is investigating the therapeutic alliance as a mechanism of change; 76 participants completed the baseline assessment for this study. Study 2 (PI Houston) is investigating impulsivity as a mechanism of change; 53 participants have completed the baseline assessment for this study (recruitment is ongoing). Weekly homework was assigned to all participants and is considered an integral part of the manual-based Cognitive Behavior Therapy (CBT) skills training that was used in the projects (Kadden et al., 1992).

TARGET POPULATION: Men and women with a DSM-IV diagnosis of alcohol dependence were recruited via advertisements for a research study that includes alcohol treatment. To participate in either study, participants must be between 18 and 65 years of age, live within commuting distance of the Research Institute, have completed at least a 6th grade education, and have consumed alcohol within the past 30 days. Individuals with active psychosis or severe cognitive impairment were not eligible for participation.

The analyses for this investigation will include data for approximately 120 participants who have attended at least one treatment session and whose 12-week treatment window has passed. (In other words, participants may not have attended all 12 sessions, but the timeframe for treatment completion must have elapsed, so that we have complete data for whether the offered sessions were attended and whether homework was completed.) One session was considered necessary for inclusion because those who did not attend any treatment sessions were never assigned homework. To date, 111 participants (69 Study 1 and 42 Study 2) meet this inclusion criteria.

PROJECT DESCRIPTION : Health literacy was measured prior to the beginning of treatment using two well-established instruments, the Short Test of Functional Health Literacy in Adults (S-TOFHLA; Baker, Williams, Parker, Gazmararian, & Nurss, 1999) and the Rapid Estimate of Adult Literacy in Medicine-Short Form (REALM-SF; Arozullah et al., 2007). Two variables were used to assess weekly homework completion: completed and attempted. The more stringent criteria of “completed” only applied to assignments where the client seemed to have accurately understood the assignment and made a “good attempt” (as rated by the therapist) at completing the assignment. In the our more lenient assessment, homework was considered “attempted” if patients brought the assignment with them to the next appointment and there was some indication that they had worked on the assignment, even if it was not fully or correctly

completed, or if the attempt appeared to be “half-hearted” (as rated by the therapist). As a result, fully/correctly completed assignments would also count toward “attempted.” It is anticipated that patients with lower health literacy would be less likely to either attempt or complete the weekly homework assignments. Because the two studies provided identical treatment, the analyses for this poster will combine data from participants in both studies who completed at least one treatment session.

OUTCOMES / IMPACT: We will use regression analyses to investigate whether health literacy predicts number of homework assignments attempted or completed (two separate outcomes) while controlling for session attendance and years of education. Each outcome will be evaluated using separate regression equations, one using the S-TOFHLA as the independent variable and the other using the REALM-SF as the independent variable. Results of the analyses will be available at the time of the poster presentation.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE: Cognitive Behavior Therapy is a well-established and frequently used approach for the treatment of alcohol disorders. Because homework is an integral part of learning and practicing the skills associated with CBT, it is likely that non-completion of homework assignments may compromise successful treatment outcomes. However, health literacy may be necessary for understanding the instructions for and purpose of the assignments and low levels of health literacy may make completion of the assignments more difficult. As such, patients with low health literacy may be less likely to understand, see the importance of, and complete the assignments. We are unaware of any published studies of health literacy among patients in treatment for alcohol dependence.

Building Wellness™: A Youth Health Literacy Program Targeting NYC's Youth Living in Public Housing, an Initiative of the Eugene M. Lang Foundation

Project Dates: 2005 - present

Project Team: Catherine Diamond, MPH; Lauren McGrail; Adeline Azrack, MS

"I Have A Dream" Foundation – NY 330 Seventh Avenue, 20th Floor, New York, NY 10001

BACKGROUND OF THE PROJECT: The "I Have A Dream"® Foundation (IHDF), founded by Eugene Lang in 1982, sponsors entire cohorts of 50-100 students in under-resourced public schools or housing developments, and works with these "Dreamers" from early elementary school all the way through high school and provides them with a dynamic, long-term program of mentoring, tutoring, and enrichment. Upon high school graduation, each Dreamer receives guaranteed tuition assistance for higher education.

While Dreamers were graduating at rates comparable to their better resourced peers, they still had higher rates of asthma, obesity and other health conditions than their better resourced peers. Based on the experience of IHDF sites, and under the advisory of Dr. Rima Rudd, the Eugene M. Lang Foundation began creating a six-year (3rd -8th grade) youth health literacy program, Building Wellness™ in 2005.

TARGET POPULATION: Building Wellness is piloted through three "I Have A Dream" Foundation – New York Metro Area sites which are currently serving youth in the 3rd through 6th grade who live in public housing developments. Building Wellness is a sequential program that will see Dreamers through the 8th grade. By virtue of living in a New York City Housing Authority development, all families are low-income and receive an automatic rent subsidy. Of the New York metro area Dreamer population, 44% are African American, 48% are Latino/a, 5% are Caucasian and 3% are Asian. One hundred percent of our Dreamers are eligible for the free and reduced breakfast/lunch program at school. Seventy-five percent reside in single parent homes and over 50% percent of parents have not completed high school. Nearly 30% of the Dreamers speak a language other than English at home.

PROJECT DESCRIPTION : Building Wellness is created in response to surveys, interviews and focus groups of Dreamers, parents and staff members. Through experiential learning with games, activities and medical professionals as guest speakers, the six-year program endeavors to encourage and empower Dreamers to seek, question, process and integrate health information as to obtain the highest standard of health. With family and community support, the program seeks to support Dreamers' self-efficacy and sense of well-being in conditioning their lives to extend their ambitions and fulfill their aspirations. Ultimate goals of the program are:

- to reduce obesity rates;
- to reduce hospitalization due to asthma;
- to reduce alcohol and drug use and abuse; and
- to reduce accidental injury rates.

Curricula are written as scripts to include all information the instructor may need to ensure easy implementation by instructors regardless of level of health knowledge. Curricula include possible questions Dreamers may pose as well as appropriate answers. Each curriculum is accompanied by individual workbooks for each Dreamer to promote the collection of lessons so that Dreamers may bring home their learning at the completion of the program.

Building Wellness is intended to be a low-budget (there are virtually no expenses involved with program implementation) and highly feasible program with flexibility to meet site needs while maintaining the fidelity of the program.

OUTCOMES / IMPACT: Each curriculum includes a pre and post evaluation to measure Dreamers' progress. Questions are mainly multiple-choice and include one to two questions pertaining to the previous year's material to measure information retention.

The first four years of the six-year program have been developed and implemented by two to three sites (one site started one year behind the other two pilot sites). Evaluation results have shown consistent increases in knowledge and anecdotal reports from instructors show positive behavior change and an increase in curiosity about their health and bodies. Dreamers are retaining information from each lesson and across curriculum despite often having a summer and a semester between Building Wellness years.

Lessons have also changed the culture of the sites in which Building Wellness is implemented. Dreamers recognize and request healthier snacks, they are aware of the hazards surrounding them, and they take action to keep themselves healthy by washing their hands properly.

Dreamers self-report the importance of Building Wellness and enjoy learning about their bodies and minds and ways that they can prevent illness and injury.

A major strength of piloting Building Wellness through IHDF is the long-term relationship IHDF has with the Dreamers. Dreamers remain in the program through college and will be available for data collection through college and beyond. BMI and very basic health information have been collected on participating Dreamers and a plan for a more detailed evaluation structure is currently in development.

Additionally, process evaluations are conducted with instructors after each year's implementation. This provides feedback on structure, lesson content, time management and site needs. Adjustments are made to the curricula in order to meet the needs of instructors and sites (e.g., workbook development). The program receives positive reviews from instructors who cite the need for health information and skill-building but also face intense time restraints to plan lessons on their own. Instructors find Building Wellness to be valuable, easy to execute and effective in meeting the needs of their Dreamers.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE: As the first long-term youth health literacy program created for under-resourced children in an afterschool program, Building Wellness has shown the feasibility of conveying these messages and skills to low income children in the New York area and soon throughout the country. The "I Have A Dream" National Foundation has program sites across the country and plans to institute Building Wellness in all future sites. This has the potential to reach thousands of Dreamers and their families.

In addition, Building Wellness is not created solely for IHDF sites. Building Wellness could be adjusted to fit the needs of other afterschool program models and can also be used in classrooms. The success of Building Wellness continues to show the promise of low-budget, feasible, and effective ways to close the gap between the health of under-resourced youth and their better resourced peers. The success of Building Wellness demonstrates an inexpensive solution to a very expensive problem.

CIGNA's Health Literacy Initiatives

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Presenter(s) biography

Crystal Duran, MPH, CHES is a Clinical Program Manager for CIGNA HealthCare. She reports through the Cultural and Linguistics Department under Clinical Strategy and Policy. In her current role, she provides leadership and direction for the development and implementation of a health education and health literacy strategy throughout CIGNA. She coordinates a large workgroup with members representing over 20 business units. These members participate in various projects to promote health literacy awareness and best practices.

Project Description

BACKGROUND OF THE PROJECT: CIGNA is seriously committed to our imperative to 'Make Helpful Information Easy to Obtain'. To address this imperative, CIGNA has embarked on several initiatives focusing on best practices in plain language. This abstract focuses on the phased approach and accomplishments of CIGNA's health literacy work group in helping to assess, plan, design and implement health literacy initiatives across the enterprise. In conjunction with the health literacy working group, other CIGNA business units have begun leading activities such as a collateral simplification project and re-defining the collateral development process, to promote plain language in a complimentary manner.

PROJECT DESCRIPTION : In 2006, CIGNA created a position under Medical Strategy and Policy in order to focus on developing and leading a health literacy strategy. Initially, a brief business case was presented to senior leadership along with the proposal of creating a multi-disciplinary health literacy working group. With senior leadership support, CIGNA established a multi-disciplinary health literacy working group from across a few dozen business units in early 2008. We began with a high level needs assessment which informed our focus for 2008 and 2009. Our first priority was to establish awareness. During 2008, we presented to approximately 1,000 employees raising awareness of health literacy and it's impact on the health, well-being and security of the people we serve. We collected feedback based on the following objectives: understand how low health literacy impacts the health, well-being and security of the people we serve; identify cues that indicate a potential for low health literacy; and identify resources to assist you in promoting the use of plain language. Feedback was overwhelmingly positive and it was clear from the qualitative feedback that energy was generated around reducing gaps caused by low health literacy. In addition, many staff volunteered and became active participants in health literacy related activities. In early 2009, we began translating our awareness education presentation into an online module so that it may be expanded in a more efficient manner. This module will roll out in Quarter 2 of 2009. Our second priority was to develop staff skills in order to improve written communication. As a large organization it is often difficult to implement standardized processes across the enterprise, but we found that we could leverage and capitalize on other internal efforts to reach our imperative of Making Helpful Information Easy to Obtain.

We began by researching and developing curriculum for writers across the organization. Our focus was on the overall tone, plain language and material assessment tools. In the end, we are using content from two main sources Teaching Patients with Low Literacy Skills (Doak, Doak & Root 2007) and from www.plainlanguage.gov. The plain language training course includes two 90 minute modules with some required pre-work. We have a formalized evaluation plan to test knowledge, skills and application of those skills. We are hopeful that we can obtain funding to translate our writers training course into an online module in the future. This would enable a much larger audience to take the training at a faster pace. In order to help ensure that these plain language skills are being used, our next phase involves rolling out a focused plain language policy. This policy is under development as of March 2009. We envision that our plain language training course will be included as a mandated course for some staff, details are forthcoming. In addition, participants in the health literacy workgroup have taken the message to our Customer Experience business unit where work has begun on several initiatives including: an inventory and assessment of all collaterals; re-defining the process of reviewing or re-writing collaterals for health literacy, cultural appropriateness and translation quality; and a 'words we use' guidelines for all staff based on customer research. For example, avoid the word 'provider' and use doctor, nurse, hospital or lab instead. In addition to internal activities we worked to raise awareness through external partnerships. In 2007, the CIGNA Foundation sponsored a free Health Literacy Thought Forum for the community raising awareness and promoting thought leadership. For the past several years the CIGNA Foundation has sponsored the annual American College of Physicians Foundation Health Literacy conference and in 2008, CIGNA sponsored the Institute for Healthcare Advancement's Health Literacy Conference. CIGNA has been an active member of the Americas Health Insurance Plans (AHIP) Health Literacy Taskforce and the Disparities workgroup. During 2008, CIGNA worked with AHIP so that we could share examples of CIGNA's interactive pharmacy website in the Health Plan User Friendly Web Development and Design Webinar with over 200 participants. We also presented CIGNA's health literacy initiatives at the annual AHIP Communications Conference.

Target Population National Health Plan Staff

Outcomes/Impact:

Evaluations from the awareness training show that most staff understood the impact of health literacy; could identify potential cues of low health literacy; and could identify resources to assist them in using plain language. In addition, many staff became volunteers and active participants in health literacy working group activities. Evaluations from the writers training are not yet available. However, the following will be assessed prior to class, immediately after class and 90 days after class: practices, knowledge and skills related to plain language, readability assessments and suitability assessment of materials (SAM) tool.

Implications for Policy, Delivery or Practice

Theme - Don't feel overwhelmed. Take a phased approach. As a large national health plan, it is challenging to implement standardized policies and procedures across hundreds of business units. However, if you take a phased approach and work from the grass roots level while you are working from the senior leadership level, significant progress can be made. Senior leadership support is essential and by creating energy and awareness at a grass roots level the required buy-in from these senior level stakeholders is enhanced. Small successes help garner support.

Spending time with smaller groups and helping to solve for their challenges will generate a volunteer base that can help drive the enterprise work. It is important to involve all stakeholders so that their voice may be heard.

Do individuals understand what they are told? An overview of the development of an instrument to assess spoken cancer prevention messages.

Project Dates: May 2007-April 2012

Project Team: Bridget Gaglio¹, Kathleen Mazor^{2,3}, Sarah Greene⁴, Josephine Calvi⁵, Mary Costanza², Erica Cove^{2,3}, Rebecca Cowan⁶, Terry Field³, Paul Han⁷, Douglas Roblin⁵, Laura Saccoccio^{2,3}, Andrew Williams⁶

1 Kaiser Permanente – Colorado, 2 University of Massachusetts Medical School, 3 Meyers Primary Care Institute, 4 Group Health, 5 Kaiser Permanente Georgia, 6 Kaiser Permanente Hawaii, 7 National Cancer Institute

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Background of Project:

The Institute of Medicine's (IOM) report on health literacy in conjunction with the recently updated results from the National Assessment of Adult Literacy (NAAL) have spotlighted health literacy as a national problem. While the issue of health literacy continues to be studied, as evidenced by the growing body of literature available, one thing remains constant – the emphasis continues to be on printed materials. While we know that individuals with lower print health literacy levels present at more advanced stages of disease and find self-management of diseases problematic, we do not know if the same holds true for verbally (orally) transmitted messages. One of the reasons being is that no validated instrument exists such as the ones to assess print literacy levels. The goal of this project is to develop a high quality, psychometrically sound, validated instrument to fill the existing gap.

Target Population:

The target population will consist of 1080 individuals from 4 different health plans and regions of the United States. Participants will be recruited from the Fallon Clinic in MA, Kaiser Permanente – Georgia, Kaiser Permanente – Colorado, and Kaiser Permanente – Hawaii. These sites were selected to obtain a diverse participant population. Participants are ages 40 to 70, able to understand spoken English, have adequate hearing and vision, and have no physical or mental disability that would interfere with attending to a computer-based test for 60 minutes.

Project Description:

The goal of this study is to develop and validate a test of comprehension of orally transmitted health messages. A set of realistic vignettes (video and audio) communicating cancer-related health messages were identified and compiled into a computer-based program. The test consists of 17 video segments each followed by 4 or 5 questions to assess comprehension. The video segments contain messages related to cancer prevention and screening with an emphasis on

breast, prostate, lung, colorectal, and skin cancers. The test is administered via a touch-screen computer and requires no reading and no computer proficiency.

Outcomes/ Impact:

Currently this study is in the pilot phase. The computer-based test is developed and is being pilot tested at all 4 sites. There has been a positive response thus far from participants, who have found the program user friendly and engaging. Data on patients' health literacy (for print messages), health beliefs, health knowledge, and cancer screening utilization will be collected simultaneously. Future presentations will report on the relationships between these variables, as well as findings from reliability and validity studies.

Implications for policy, delivery, or practice:

The results of this study will be important as there is very little information currently on the factors that affect people's understanding of verbally transmitted health information. The product of this study will include not only a better understanding of health literacy, but will also provide a test to assess oral health literacy.

Health Literacy and Physical Therapists: Feedback from the Field

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Presenter(s) biography

Dr. Pauline Hamel teaches in Boston University's online Master of Science in Health Communication and Northeastern University's Health Sciences programs. A physical therapist, educator, former healthcare administrator, geriatric specialist, and consultant, she was formerly director of clinical education in Northeastern's DPT program, and has taught courses in communication skills for health professionals, geriatrics, U.S. healthcare systems, health promotion, ethics, professional development, and intergenerational service-learning. Interests include teaching, consulting, writing, and interdisciplinary research in related areas.

BACKGROUND OF PROJECT: With the increasing complexity and number of medical errors in the delivery of health care today, the purpose of this research was to explore the level of awareness and identify gaps in knowledge of health literacy (within the broader scope of health communication) among physical therapists (PTs) and doctoral physical therapist (DPT) students. Though patient-centered communication lies at the center of physical therapy practice, this research further explored current levels of knowledge, the meaning of health literacy, and communication methods used by PTs with their patients/clients in various settings.

TARGET POPULATION: Practicing physical therapists and DPT students in their last year of graduate education were interviewed for this qualitative research in academic, practice, conference, and home settings, but lessons learned could apply to clinicians and students from other health care disciplines as well.

PROJECT DESCRIPTION: Participants were selected and interviewed in academic, practice, conference, and home settings. Based upon in-depth interviews with physical therapists and DPT students, as well as communications industry consultants and instructional designers, findings demonstrated gaps in awareness and knowledge of health literacy, the need for formal health literacy training in academic and clinical settings, as well as the development of industry standards and competencies for future practice and training purposes.

OBJECTIVES: .To increase understanding of current levels of knowledge of health literacy among physical therapist clinicians and DPT students; .To identify the "meaning of health literacy" among physical therapist clinicians and DPT students; .To identify relevant industry standards and recommendations regarding health literacy; .To explore aspects of patient-provider communication, patient comprehension, and compliance; .To identify communication methods currently used by physical therapists in academic and clinical settings

APPROACH: Qualitative research methods were used to assess current levels of knowledge of health literacy as well as exploration of current communication methods and approaches used by

physical therapists in academic, clinical, and practice settings with their patients/clients to ascertain future educational and training needs.

Target Population Physical Therapists, DPT students, [other] health providers, and patients/clients

OUTCOMES/IMPACT: Findings from informant interviews revealed gaps in knowledge of health literacy among practicing physical therapists and DPT students. Some participants were unfamiliar with the term "health literacy" itself, and in many cases, gave educated guesses when asked to define this term. The terms communication, health communication, and health literacy were often used interchangeably. Some expressed that misinterpretation of health information could adversely affect health outcomes, and recommended the use of medical interpreters to increase comprehension and compliance. As part of the rehabilitation toolbox, participants described communication approaches and techniques such as specialized equipment, devices, and ancillary aids for specific diagnoses and/or special situations, as well as demonstration/teach-back techniques and methods that included visual aids, computer printouts, digital photographs, and drawings for use in the professional workplace environment. Regarding patient/client comprehension, many referred to issues surrounding language barriers, but also considered the impact of culture, health beliefs, age, and gender on patient/clients' ability to understand physical therapy instructions. Several stressed the importance of patient education and providing specific rationale for treatment in order to increase patient understanding and compliance.

IMPLICATIONS FOR POLICY, DELIVERY, OR PRACTICE: This research illustrates the close relationship between research and practice and the need for future development of more extensive communication and health literacy policies and training programs for both health care students and experienced clinicians in academic, clinical education, and practice settings, as well as ongoing professional development arenas. Additionally, health providers are urged to collaborate with non-health disciplines, including policymakers, educators, communications experts, and instructional designers to promote effective health literacy methods and materials, increased awareness, competency standards, and renewed commitment to health literacy concerns in academic, clinical, and other practice settings.

Providing Easy-to-Read, Trilingual Health Information for Hospital Patients: An Outcome of the Health Information Literacy Research Project.

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Presenter(s) biography

Andrea has been a practicing librarian for 12 years, and has spent the last 4 1/2 as the solo librarian for Good Samaritan Hospital in downtown Los Angeles. Her recent initiative to start a consumer health facility in the medical library led to her participation in the NLM/MLA Health Information Literacy Research Pilot Project, 2008. She will be a co-presenter of the paper "Culture, Health, and Literacy: An Outcome of the Health Information Literacy Research Project" at MLA's national conference, May 2009.

Project Description

My objective was to provide easy-to-read, trilingual patient health information to all the nursing stations in the hospital. I recognized a need among our nurses for hospital patient education materials in Korean, as well as English and Spanish when I was asked for help by one of our cardiology nurses. This led me to create a trilingual binder of general, easy-to-read, wellness/health information handouts that the cardiology nurses can photocopy. The response from the nurses was positive so I decided to create binders of trilingual health information that targeted each of our hospital departments, for each nursing station. I have also been approached by doctors who expressed a need for easy-to-read and trilingual health information for their patients. My latest objective is to offer and provide a similar service to our physician offices that are attached to the hospital.

Target Population Nurses, Patient Educators, Librarians, Physicians, Hospital Administration

Outcomes/Impact:

Through this project, nurses now have access to easy-to-read, trilingual health information in print that they can use to educate patients about diseases, conditions, diagnostic tests, surgeries and general wellness. The profile of the medical library has been raised by providing library-created binders to each of the nursing stations which serve to remind nurses, physicians, hospital staff and administration to utilize the library for research needs and for help with finding health information in other languages and that is easy-to-read. Additionally, the relationship between the librarian and health care providers has been strengthened. I intend to work with the physicians to provide similar health information for patients during office visits; and to engage hospital administration in finding ways to simplify and promote access to easy-to-read, trilingual health information.

Implications for Policy, Delivery or Practice

The main governing body for hospital accreditation and policy guidelines is the Joint Commission. A number of new initiatives are targeting the hospitals ability to meet the language and culture needs of its diverse population. Joint Commission Standard RI.2.100 requires that the organization "respects the patient's right to and need for effective communication." This Standard is being developed and expanded with numerous recommendations for how to implement changes and comes under the heading of Patient Safety. My project also ties into another Joint Commission Standard: PC.6.30 which requires the organization to provide "education and training specific to the patient's abilities as appropriate to the care, treatment, and services," and that, "The content is presented in an understandable manner," and "Comprehension is evaluated." Providing easy-to-read, trilingual health information addresses a number of compliance issues in relation to patient safety. These printed materials are available for photocopying at all of the nurses' stations. Because hospitals have security concerns due to the privacy we maintain around patients' records, our nurses' stations do not have internet access. This is why I created the binders of printed health information. However, we do have an intranet and I intend to explore the possibility of starting a patient education: health information library of easy-to-read and trilingual materials. I also intend to engage with some of our hospital committees and our nursing management on what I have been doing to see if there is a way to expand provision and simplify access.

Addressing Health Literacy for Patient Safety

Rita Kang

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Presenter(s) biography

Rita Kang is the Manager of Patient Education and the Patient and Family Library at the Toronto Western Hospital. She is a Registered Social Worker and has a Master of Education degree in Organizational Development. Rita provides leadership to patient education initiatives and provides consultation in the areas of learning needs assessment, curriculum development and evaluation.

Project Description

The objective of this poster is to identify the important link between health literacy and patient safety from current literature. Modalities and strategies will be reviewed on how to address low health literacy barriers. Tools and examples from a multi site academic hospital in Toronto, Ontario (Canada) will be shared, described and illustrated.

Target Population healthcare staff/ educators

Outcomes/Impact:

The suggestions and examples in this poster are aimed to encourage organizations to address health literacy to prevent adverse effects and improve the safety of patients.

Implications for Policy, Delivery or Practice

The implications for policy, delivery or practice are to consider the following when planning patient safety initiatives:

- include health literacy strategies,
- the importance of plain language,
- the need for translation
- the benefit of multiple educational formats ie/ graphics
- engagement through building partnerships

Mind The Gap: A Health Literacy Initiative Aimed At Improving Patient Safety

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Presenter(s) biography

Simran Kaur manages the Patient Safety Program at Children's Hospital in Central California and is currently coordinating a health literacy initiative aimed at improving patient safety. Simran has a background in Public Health and her previous work included coordinating the Refugee Health Assessment Program at the International Health Clinic at Boston Medical Center.

Project Description

Low health literacy is strongly related to poor health outcomes with 80% of patients forgetting their physician's instructions as soon as they leave the doctor's office. We have developed a telephone line that is aimed at providing patients with a recording of their specific discharge instructions. This telephone line is accessible to Spanish, Hmong, and Mixteco-Bajo speaking patients as soon as they leave our facility. With this mechanism in place, patients and families are able to listen to their discharge instructions from home. Patients and families will have the opportunity to share information with other family members, thus empowering them to be more actively involved in their own care. The telephonic recording system will include provider and/or clinic information as well as encourage patients and families to speak up and seek clarification should they have any questions. Through improved communication, patients, families and clinicians will not only better understand each other but the potential for care negotiation will significantly strengthen.

Target Population Patients and families who speak Spanish, Hmong, or Mixteco-Bajo being discharged from the Perioperative department.

Outcomes/Impact:

This study is currently in progress. The program objectives are: [1] To develop a mechanism to enhance communication between patient/caregiver. [2] To increase patient knowledge and compliance with discharge instructions and thus reduce the potential for medication errors and/or patient harm. [3] To encourage patient involvement in their care.

Implications for Policy, Delivery or Practice

This program will be a building block of a larger and more comprehensive health literacy program. It will initially impact Hmong, Spanish, and Mixteco-Bajo speaking patients who have received discharge instructions from an interpreter, a population at significant risk for errors and complications from low levels of health literacy and communication. Since we serve a pediatric population, this initiative will also impact family members and thus we will be providing a service to a large community of individuals. The long term goal is to create a service to all patients and families, regardless of the language they speak. Additionally, a program such as this

can be expanded and developed to eventually provide pre-recorded discharge instructions for various ailments such as head injury or gastroenteritis and for patients being discharged from the Emergency Department and physician offices. This expansion will positively impact the quality of care provided to our patients. Due to the simple nature of this program and the fact that it utilizes existing structures and resources, we strongly believe it will be an excellent candidate for national replication. This initiative is consequential for pediatric as well as adult populations and can easily be replicated by both types of healthcare facilities. While our population served may be distinct from other areas in the U.S., it is clear that the benefit of such an initiative will impact all communities regardless of linguistic variations.

Health Literacy and Diabetic Patients Health Education Study

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Presenter(s) biography

Jen Kimbrough is Associate Director of the Center for Youth, Family and Community Partnerships at UNC Greensboro. Dr. Kimbrough received her B.S. from Indiana University, MEd in Public Health and Ph.D. in Educational Leadership and Cultural Foundations from UNCG. She has implemented community health projects in worksite health, child/adolescent health, school health and health literacy. Dr. Kimbrough led a local health literacy effort and is co-leading a statewide team to elevate health literacy in NC.

Project Description

Methods This study was conducted in two primary healthcare facilities, the Internal Medicine and Family Practice clinics of the Moses Cone Health System in Greensboro, NC. The Internal Medicine Clinic serves approximately 900 diabetic patients and the Family Practice Clinic serves approximately 625 diabetics annually. Potential subjects in the study were identified by accessing the hospital system's computerized database. Patients were eligible if they were currently diagnosed with either type I or type II diabetes. Patients who did not speak English and did not have an interpreter on site were excluded. Between September 2007 and May 2008, two research assistants enrolled all eligible, willing, and able patients who were present at the clinic for an appointment. Patients who were fluent in English, or patients who spoke a different language and had an interpreter, were asked to participate in the study. Written and oral consent were obtained from patients before participation and a \$10 CVS gift card was offered for patients who completed the study. The protocol was approved by the Institutional Review Boards of The University of North Carolina at Greensboro and Moses Cone Health System.

Measures To measure health literacy, we used the English version of the Short Test of Functional Health Literacy in Adults (STOFHLA), a 36-item reading comprehension test that uses a modified Cloze procedure. Every fifth to seventh word of the passage is omitted and 4 multiple-choice options are provided. Participants were given 7 minutes to complete this test. The STOFHLA was scored on a scale of 0 to 36. The test scores were used to categorize patient health literacy levels as inadequate (between 0 and 12), marginally adequate (between 13 and 24), or adequate (25 or above). Participants were then administered a test of diabetes knowledge which included 9 multiple choice questions. These items were taken from the Michigan Test of Diabetes Knowledge. Upon completion of the test, participants were given one of three types of diabetes education materials (1) a DVD tutorial (2) a low literacy notebook or (3) the written pamphlet that was being distributed within the clinic at the time. Immediately after the intervention, the participants took the knowledge quiz again. The scores of both the previous and post tests were analyzed to observe whether patient scores were influenced by the education materials provided to determine the best method of intervention. As a side note, the research plan originally called for a fourth intervention of a computer-based tutorial. After 100 subjects were enrolled, only 3

had completed the computer-based intervention, due to subject refusal to participate in this method. Even when the researchers offered assistance with computer use and sat with the participants, few subjects were willing to attempt to navigate the diabetes education website. This intervention was subsequently dropped for the remainder of subject recruitment.

Outcomes/Impact:

While overall, statistically significant improvements in diabetes knowledge were observed for the entire study population, statistically significant differences were also observed between subjects exposed to the low literacy written educational materials and the regular written materials.

Implications for Policy, Delivery or Practice

These results suggest that low literacy written materials may be the most effective means to improving health knowledge. It is important to note that all of the materials utilized in this study produced improvement in knowledge scores. This indicates that targeted education in many forms may produce short-term gains in knowledge. What remains unknown is whether the knowledge is kept in long-term memory and whether the knowledge is translated into health behavior practice. In terms of practical significance of this study, a gain in core knowledge about caring for diabetes should translate into better disease outcomes.

Health Information Literacy Outreach Project: Improving Health Literacy and Access to Reliable Health Information in Rural Oxford County Maine

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Presenter(s) biography

Sabrina Kurtz-Rossi is a health literacy curriculum developer and professional development trainer. She was responsible for developing the health literacy lessons piloted as part of this project, implementing the project training, and providing assistance to the teachers and librarians. Patricia Duguay has served as Executive Director of the RVHCC since the program's inception in 1997. She is a public health professional with extensive experience in community partnership building, and garnered community support for the project.

Project Description

The River Valley Healthy Communities Coalition (RVHCC) is a non-profit organization serving nine towns in Rural Oxford County Maine. The goal of the RVHCC Health Information Literacy Outreach Project is to increase community access to reliable health information and improve health literacy skills in the community among youth and young adults, and community members of all ages, especially seniors ages 65 years and older. An interdisciplinary approach involving medical and public librarians, k-12 teachers, adult literacy instructors, and health professionals is used to achieve the following project objective: 1) to assess community health information needs and inventory resources and services; 2) to increase the capacity of local teachers and librarians to use online health information resources to improve health literacy; 3) to pilot a health literacy curriculum with intergenerational activities where young learners reach out to help seniors in the community use the Internet to find health information; and 4) to model consumer health information outreach and encourage similar efforts throughout the state of Maine. The project began with a pre-project, community-wide inventory and needs survey. The survey was developed in Survey Monkey (Internet-based) and distributed to RVHCC individual and organizational members. The project Health Literacy Consultant and Medical Librarian conducted the project kick-off/training in the Region 9 adult education computer lab. The training introduced teachers and librarians to reliable health information resources and prepared them to use health literacy lessons. In preparation for the training the Health Literacy Consultant developed the following five sample lessons: Lesson One: Using the Internet to Find Health Information; Lesson Two: Evaluating Internet-based Health Information; Lesson Three: Answering Health Questions Using the Internet; Lesson Four: Community Health Information Literacy Projects; and Lesson Five: Demonstrating Health Literacy Skills. Teachers and librarians were encouraged to adapt the lessons to meet the needs of students. Four public librarians attended the training and provided community access and support to youth searching for health information and helping others in the community. A number of project evaluation tools were also developed: 1) Curriculum Pre-/Post-Evaluation distributed by teachers to all students to capture changes in knowledge, attitudes and behaviors as a result of participating in

the curriculum; 2) Teacher Feedback Form completed by all teachers who implement the curriculum to capture formative feedback to inform the development of the final product; and 3) Health Information Literacy Story-based Evaluation Form completed by all students, teachers and librarians as a way of capturing how people in the community benefited from the project. The project will publish a source book documenting the experiences of the pilot sites and distribute it to other healthy community coalitions throughout the state of Maine.

Target Population

The target population(s) for this project are middle and high school youth; young adults (18-25 year olds) in adult education settings; and community members of all ages, especially seniors ages 65 years and older. Teachers and librarians are a secondary audience in the project's effort to improve community capacity and access the reliable health information.

Outcomes/Impact:

Seventy-three RVHCC members responded to the community inventory/needs survey. Eighty-six percent said they work in an organization that serves the community, 63% said they provide community members with health information as part of their work, and 42% said they provide community access to the Internet. Twenty-five local teachers and librarians participated in the project kick-off/training. The curriculum was piloted in two middle schools, two high schools, and the Region 9 adult education program. Teachers have worked with over 230 students so far, have distributed student pre-/post-evaluations, and are working on their feedback forms. A presentation of the project was offered to members of the Maine Network of Healthy Communities in November 2008. Project data are being collected and analyzed. Results will be ready to share at the IHA Health Literacy Conference in May 2009. A poster session on the project will also be presented at the Medical Library Association Annual Meeting 2009 and at the Annual Meeting of the North Atlantic Health Sciences Libraries 2009.

Implications for Policy, Delivery or Practice

Interdisciplinary partnerships involving medical and public librarians, k-12 teachers, adult literacy instructors, and health professionals can help address the problem of low health literacy in the US, especially in rural communities. Medical librarians have a history of health information outreach to health professionals and consumers in underserved communities. Working with public libraries and community organizations has greatly facilitated these efforts. Of particular interest to librarians are consumers' abilities to recognize health information needs, identify reliable sources, evaluate quality, and use the information to make informed decisions. This concept of health information literacy and librarians' efforts in this area is critical to improving health literacy, increasing community access to health information, and empowering healthy decision making.

Health Literacy Tools among American Indians/Alaska Natives

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Presenter(s) biography

CDR Christopher Lamer is a Commissioned Officer in the United States Public Health Service and has been in the Indian Health Service since 1998. CDR Lamer is a pharmacist and works as a clinical informaticist for the Office of Information Technology and Health Education programs. CDR Lamer is highly involved the development of clinical programs, quality metrics, and support of RPMS applications.

Project Description

Inadequate health literacy is a major problem affecting American Indians and Alaska Natives. A new health factor for health literacy is available in the RPMS computerized database to identify patients with low health literacy. The purpose of this project is to assess and validate a screening tool of health literacy among English-Speaking Native Americans/Alaska Indians. Three health literacy assessment tools will be compared and contrasted: a) the REALM-R, b) the brief questionnaire by Chew and colleagues, and c) the Newest Vital Sign. Using a cross section of the United States American Indian and Alaska Native population, these health literacy screening tools will be administered by health educators to at least 384 patients. Evaluation of the results will assist in the selection and/or development of a health literacy screening tool that will be recommended by the IHS health literacy program.

Target Population American Indians and Alaska Natives

Outcomes/Impact:

Pending. Preliminary results suggest that there are differences between the assessment tools

Implications for Policy, Delivery or Practice

Although designed to compare and contrast 3 health literacy assessment tools, preliminary review of the data suggest that numeracy is a barrier among AI/AN populations. Further analysis of data is ongoing.

Age-Appropriate Pre-op Education for Pediatric Patients

Project Dates: 2005 – Present

Project Team: Donna R. Martin, MS, CCLS; Director of Child Life
Michelle DeRooy, BS, CCLS; Child Life Specialist
Kristin Maguire, BS, CTRS; Child Life Specialist
Joanne Amann, RN, Nursing Supervisor
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BACKGROUND OF THE PROJECT:

Pre-op teaching practices at Shriners Hospitals for Children – Erie had to change when the decision was made to admit patients on the morning of surgery rather than the day before. Prior to that change, Inpatient Nurses and Child Life Specialists had ample time to prepare patients and families for elective surgery at this pediatric orthopedic hospital. A multi-disciplinary team re-invented the process and developed a set of age-appropriate, multi-media learning modules to present to patients and families at pre-admission clinic appointments. Although there is less time and fewer staff to meet with patients in the outpatient setting, the methods and media used to convey the messages are designed to quickly engage the child at his/her developmental level in a manner that can be adapted for differing learning styles.

TARGET POPULATION

The education materials were created for children and adolescents and their families scheduled for elective orthopedic surgery. Many of the children have significant and lifelong physical, mental and emotional disabilities. Others are treated for correctible orthopedic problems. Learning styles of the patients vary as they do in the general population, and the range of cognitive abilities is very wide as well.

PROJECT DESCRIPTION

The pre-op teaching function moved to the outpatient department. Because Child Life Specialists had more flexibility to travel between inpatient and outpatient areas, the primary responsibility for pre-op teaching was assigned to that department.

In collaboration with staff from Nursing, Anesthesia, Operating Room and Recovery, the Child Life team identified what is most important for patients and families to know before surgery. The literature describing evidence based practices suggests that children cope more easily before and after surgery when they know what to expect.

The child life staff wrote scripts using age-appropriate language to describe:

- what children will see, hear, taste, feel and smell
- the sequence of events they will experience
- the length of time each step may take

- suggestions for ways to cope with frightening or uncomfortable procedures.

The team decided to create materials for 4 age groups:

- Infants and toddlers (for parents)
- Pre-school (3-5years)
- School-age (6-12years)
- Teens (13-18years)

We used Powerpoint slideshows on a laptop computer as the primary medium for infant, school-age and teen programs and a storybook format for the pre-schoolers. Actual patients were photographed during their pre-op and post-op encounters and scripts were added to the slides to explain the settings and activities pictured. Based on the differing needs of the 4 targeted groups, the slide shows vary in the amount of detail presented as well as the choice and number of topics addressed.

During the teaching sessions, staff use props for the children to see and handle in addition to viewing the pictures and listening to the words of the slideshows.

OBJECTIVES:

Patients will know what to expect when they come to SHC for surgery

Patients will be able to practice coping measures

Patients' fears of the surgery experience will be diminished

Patients' level of cooperation will increase

OUTCOMES / IMPACT

Performance improvement monitors to this date have demonstrated that the process is working well. Very few patients are missed in our collaborative approach to preparing patients and families for surgical encounters.

We are struggling with how to measure the effectiveness of the teaching. We have a positive intuitive sense of the results and anecdotal evidence, but would welcome discussion and suggestions for a more reliable measure.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE

Children and teens have responded well to use of the laptop computer to learn about the surgery experience. At the same time, the sessions are made more interactive and personal by the presence of the Child Life Specialist who can listen to the child or family issues, demonstrate and explain parts of the "story" and communicate concerns to other patient care staff.

At this small, not-for-profit hospital with no graphic arts department, this use of a simple computer application has worked well for us. The slideshow format is an inexpensive, easily updated and portable way to go. We can make copies on CD's for families to take home or print them on paper for our many Amish patients and others who lack access to computers.

An exploration of a community based approach to improving prostate cancer screening practices and awareness in underserved male populations

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Presenter(s) biography

Jennifer Martin (Bachelors, Oregon State University, 2007) is a graduate student of Health and Risk Communication at Chapman University in Orange, California. Her research has focused on cancer, health literacy, health messages, and strategic communication. Her goal is to change health behaviors, increase health literacy and promote cancer screenings through health messages and strategic communication.

Project Description

Underserved males are being diagnosed with advanced stages of prostate cancer. This is due to many overriding factors such as low levels of health literacy, health disparities, socioeconomic status, age, and lack of health insurance. The focus of this study was to reach underserved adult males early enough for them to learn about prostate cancer screening practices, to increase their health literacy levels, and for them to learn through other underserved male experiences. By reaching this young population early prostate cancer incidence rates and late stage prostate cancer diagnosis are expected to decrease. Through a community based approach and Bandura's social cognitive theory underserved male populations will increase their prostate cancer screening practices and health literacy levels. The goals for this study are connected to Bandura's social cognitive theory via a community based approach. Through social cognitive theory the use of persuasive messages and vicarious experiences will increase positive health behaviors specifically prostate cancer screening practices among underserved male populations. A community based approach was designed to improve prostate cancer screening practices and awareness among underserved adult males. The goal is for every person in the community to have the opportunity to receive educational information about prostate cancer and prostate cancer screening practices. A survey was given to 16 underserved young males at a local community college. The results were calculated from the risk and behavior diagnosis 6-point Likert scale, which was used to assess the young men's response efficacy, self-efficacy, susceptibility, and severity of prostate cancer. Results indicate that some populations had negative scores when the perceived efficacy scores were added then subtracted by the perceived threat scores. Only one population had a positive number which was the Asian population. The Asian population had a positive number (2) which concludes that they are engaging in danger control because they perceive that their efficacy is stronger than their risk of prostate cancer. The White population had a score of (-59), the African-American population had a score of (-9), and the Hispanic/Latino male population had a score of (-32). When a negative number is present this indicates that the males are practicing fear control because their perceived threats of prostate cancer were stronger than their efficacy.

Target Population: Underserved adult males, 18-29 years old who live in Orange and Los Angeles counties.

Outcomes/Impact:

A health campaign was designed to promote early prostate cancer screening practices and awareness within underserved male populations. Results indicate that health literacy, health disparities, and a lack of knowledge about prostate cancer and prostate cancer screening practices either caused fear control or danger control within this population.

Implications for Policy, Delivery or Practice

Through a community based approach the target population is directly involved with the study and their feedback is given to the researchers about their specific needs and wants. Through direct feedback a health campaign can be tailored to a specific population and therefore, impact their health behaviors.

Estimating and Mapping Health Literacy

** Did not attend/present*

Laurie Martin

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Presenter(s) biography

Dr. Martin is an associate policy researcher at RAND with over ten years of experience in the field of public health. Dr. Martin's interests focus on understanding the relationships between cognitive and literacy skills, educational experiences, and physical and mental health across the life course, and on fostering collaborations among stakeholders to advance action on health literacy.

Project Description

National, state and local stakeholders seeking to improve health and health care increasingly recognize that low health literacy (LHL) contributes to poor health and gaps in care. Yet, resources to screen individuals for LHL are limited, and individually-tailored interventions may not be feasible or affordable in the long run. We offer an alternative population-based approach to identify geographic areas with a high concentration of individuals with LHL (i.e., 'hot spots') where interventions aimed at LHL populations might be most effective in improving health and health care quality. To facilitate efforts to identify 'hot spots' of low health literacy, we developed predictive models using data from the 2003 National Assessment of Adult Literacy (NAAL). Using these models and information about the demographic makeup of census areas (public use microdata areas (PUMAs) and census tracts), we generated estimates of health literacy for each geographic area. We then mapped the results to identify 'hot spots' of low health literacy across Missouri.

Target Population: state and local stakeholders

Implications for Policy, Delivery or Practice

Maps of health literacy can advance the study of health literacy's impact on health disparities and health outcomes. In addition to serving as the basis for a clinical prediction rule to identify individuals who may have LHL, the models may have broad applicability to a range of stakeholders including public health and community organizations, who may apply regional data to these models to generate "hot spots" of low health literacy to identify where, geographically, interventions may be effectively and appropriately targeted.

Cleveland Department of Public Health & Cleveland Reads "Lit Kits for Health"

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Presenter(s) biography

Helping combat chronic disease for three years at the Cleveland Department of Public Health as part of the Steps to a Healthier Cleveland program, Timothy is now grant manager for the Health Literacy work being done at CDPH and plans other popular programs such as Walk a Hound, Lose a Pound. Timothy will graduate with an MPH from Case Western Reserve University May 2009.

Project Description

To design and develop "Lit Kits for Health" that bridge you literacy through appropriate readings and hands on games on a variety of health topics including asthma, obesity, diabetes, healthy eating, healthy living, and healthy decision making.

Target Population

Youth and Youth Literacy Providers

Outcomes/Impact:

- To increase youth knowledge on the health topics covered.
- To promote chronic disease self management.
- To increase chronic disease prevention amongst youth.
- To build the capacity of literacy providers to help battle chronic disease.
- To increase youth knowledge on the health topics covered.

Implications for Policy, Delivery or Practice

- Increased knowledge of chronic disease prevention and management.
- Enhanced partnership between public health and literacy providers.

Beginning the Process of Integrating Health Literacy Practice into Primary Care

R. L. McCune, MEd, RN, Doctoral Candidate

H. Lee, MSN, RN, Doctoral Candidate

J. M. Pohl, PhD, ANP-BC, FAAN, Advisor

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Health literacy skills are critical to reducing errors through improving the communication between provider and patient. In primary care settings, means to identify patient health literacy capabilities and staff knowledge, attitudes and beliefs (KAB) regarding health literacy must be known prior to work on improving communication skills and implementing new processes. This exploratory study examined the feasibility of using two methods to address these issues: assessing patient health literacy using the Newest Vital Sign (NVS)¹ and measuring the use, and effect, of a new computer-based intervention “Health Literacy in Primary Care”² with providers and staff.

The goal of Healthy People 2010, Focus 11 (Communication) is to “use communication strategically to improve health”³. We believe that health literacy is an integral thread in the communication process that runs through a health practice, starting with the first patient phone call and continuing through each encounter with, and between, members of the health team. Health literacy skills development influencing communication practice includes all clinic participants - patient, provider and practice staff. Before the provider, or staff, can begin to address the health literacy of the patient, a working knowledge of health literacy and an awareness of tools to supplement and reinforce communication must be available.

To begin to understand the relationship of communication to health, we focused our study on an at-risk patient population which included a sample of 320 patients from a diverse payor mix, including the uninsured. Access to care occurs at primary care sites located in four distinct Michigan cities: Ann Arbor, Detroit, Grand Rapids and Lansing. The 60 providers and their staff represent unique sites: five nurse-managed health centers (NMHC) and two “free” clinics with mixed-discipline volunteer provider staff and paid support staff. All seven sites also provide opportunities for students from multiple disciplines.

Study objectives:

- 1) To examine provider-staff awareness of patient health literacy status within the primary care setting
- 2) To measure change in provider-staff knowledge, attitudes, and beliefs related to health literacy after implementing a web based module.
- 3) To pilot test the implementation of a standardized tool (The Newest Vital Sign/NVS) to measure health literacy in nurse managed health centers to:
 - a. obtain sample percentage of health literacy in each clinic
 - b. examine the time it takes to administer NVS: timed data
 - c. examine patient perspective on use of NVS in a primary care setting.

Staff and providers completed a pre/post survey on health literacy KAB and viewed the educational module. Patient health literacy was assessed using the NVS during the vital sign process, prior to the visit with the provider. At the completion staff/provider education and

testing, a focus group was convened to assess reactions to the module and patient assessment process.

Both quantitative (staff/patient demographics, individual NVS results) and qualitative data (patient perceptions of the NVS, staff KAB, staff focus group) were collected. Quantitative data was analyzed using descriptive, correlational, and paired t-test methods. Qualitative analysis of patient and staff interviews provided insight into patient perceptions of the NVS, staff KAB, and unique clinic themes.

Based on a pilot study with a NMHC population, the average NVS score was 3.52 (S.D. = 2.16) out of a maximum score of 6, indicating 44% of the patients had high likelihood of, or possibly, limited health literacy skills. Data analysis for this study is currently being finalized. To date, NVS results are similar to the pilot data and patients were receptive to using the tool. Providers and staff enjoyed the interactive educational module and a few changes in pre/post KAB were seen. Qualitatively, discussion during focus groups revealed the prior misperceptions held by staff surrounding health literacy and the areas for improvement identified within each clinic. Study findings will be presented regarding the feasibility of using the module, "Health Literacy in Primary Care", results of provider/staff KAB pre/post module, NVS results, and thoughts on the use of the NVS in primary care.

Primary care practice implications learned in this study point to: 1) the need for a mechanism to identify individuals who may possess limited health literacy skills to reinforce care messages and circumvent misunderstandings and 2) develop a clinic mechanism among staff that provides opportunities to use health literacy communication tools consistently with all patients to improve safety and knowledge.

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Is functional health literacy of parents a problem in pediatrics?

**** Did not attend/present***

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Presenter(s) biography

Eileen McDonald is an Associate Scientist at the Johns Hopkins Bloomberg School of Public Health in the Department of Health, Behavior and Society and is a core faculty of the Center for Injury Research and Policy in the Department of Health Policy and Management, where she has a joint appointment. Her research focuses on the application of innovative health education methods, health communication technology, and other hospital- and community-based interventions aimed at reducing pediatric injuries.

Project Description

Pediatricians and other pediatric health care providers frequently work with parents in an effort to improve the health of children but few have explored the link between parental health literacy and pediatric health issues. This lack of focus is especially true as it relates to injury prevention. We assessed the prevalence of low health literacy among a sample of inner city parents of young children being seen in a pediatric emergency department and compare these results with other published studies of parents' health literacy rates. We administered the Rapid Estimate of Adult Literacy in Medicine (REALM). We also searched MEDLINE for other published works that used REALM to assess parents' health literacy.

Target Population—Parents who accompanied their child to an urban, pediatric emergency department

Outcomes/Impact:

The REALM was completed with 522 participants; 38% of parents in our study scored below a ninth-grade reading level, defined as low health literacy. Six studies were found through our MEDLINE review and were compared to our results. Low health literacy rates ranged from 24% to 71% across samples. While race, education, and household income were found to be associated with low health literacy in some of the published papers, no consistent pattern emerged between demographic characteristics and less than adequate health literacy levels.

Implications for Policy, Delivery or Practice

Health professionals cannot and should not make assumptions about the literacy skills of their patients / parents based on sociodemographic factors. More attention is needed to effectively address the health literacy needs of patients and their caregivers.

Helping America's Veterans Meet Challenges in Disease Prevention & Wellness Interventions Through On-line Communications

Thomas Muscarello, MS PhD

Tariq Hassan, M.D. (North Chicago VA), George Lutz, PhD(North Chicago VA); Janine Stoll, RN, BSN, CDE (North Chicago VA), Thomas Muscarello, M.S., PhD(DePaul Univ.); David Donohue, M.S.(Qualitative Technologies)

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Presenter's Biography

Dr. Muscarello is an Associate Professor in DePaul University's College of Computing & Digital Media. He has an extensive background in business, government, and academia and specializes in the areas of Health Care Systems, knowledge management, and data mining. He has served in senior positions in the Health Care Financing Administration, DHHS Office of Inspector General, MCI Health Vertical Practice, and private consulting companies. He was founder and executive director of DePaul's Technology Business Incubator.

Project Description, Objectives, and Approach

Our long term goal is to bridge the educational/information gap between the VA's high-risk diabetes patients at 153 VA medical centers nationwide, defined as HbA1c level > 9.5% and VA health care providers, resulting in thousands of patients among the VA's 1,140,000 diagnosed with type 2 diabetes who refuse to attend or participate in prescribed (DSME) Diabetes Self Management Education interventions, outlined in VA studies (1, 2).

Dramatically lower levels of educational participation have contributed to 90% of VA diabetic patients classified as overweight or obese, with a (BMI) Body Mass Index of 29% or higher, a leading driver of long-term adverse diabetic complications.

According to a study (3) an estimated 8% of U.S. population has been diagnosed with diabetes, 90-95%, type 2, with 85.2% either overweight or obese, associated with poor diet, lack of exercise and control of blood glucose levels. Obesity and diabetes lead to high blood pressure and cholesterol levels, driving significant heart disease and stroke occurrences, the two leading causes of death for diabetics.

In 2008, 20% of the 5.7 million VA health care patients, more than double the national average, have been diagnosed with type 2 diabetes. According to a NIH funded study (4) building effective education and patient communication interventions between providers and patients is the cornerstone of effective diabetes treatment. Today, alternative strategies and customized education/communication interventions are clearly needed to attract, educate and actively engage diverse high risk VA diabetic patients in enhancing their long term diabetes compliance levels.

In conclusion, a recent Duke University study (5) has shown that thousands of patients do not adhere to therapy, experience repeated hospital admissions, and have or are at risk for multiple complications, often due to poor knowledge, a lack of effective medical education interventions,

resulting, in turn from unrecognized low patient health literacy levels. Indeed, research elsewhere (6) has shown that individuals with low literacy skills have worst diabetic control than those with adequate literacy skills, even when controlling for a host of other socio-demographic variables.

The (NCVAMC) North Chicago VA Medical Center in 2006 had 625 high-risk diabetes patients defined as those with a HbA1c of 9.5 or greater of whom 48% either dropped out of, or did not participate in a prescribed VA Diabetes self-management education intervention program. Education is the cornerstone of effective diabetes treatment, and one of the most important factors influencing adherence and patient safety outcomes.

Hundreds of NCVAMC patients with diabetes do not adhere to therapy, experience repeated hospital admissions, and have or are at risk for multiple diabetes complications. The lack of compliance, is often due to poor HbA1c knowledge and misunderstanding of the proper management of diabetes. This often results, in turn, from unrecognized low health literacy. Indeed, research elsewhere has shown that individuals with low literacy skills have worse diabetic control than those with adequate literacy skills.

A growing body of evidence suggests that patients with chronic diseases, such as diabetes who are engaged and active participants in their health care have better health outcomes. For example, patients who have completed chronic disease self-management training programs have improved self-efficacy and physical functioning and less acute care use than non-participants. Chronic illness care self-efficacy is positively associated with health outcomes. Respondents who knew their HbA1c values reported significantly better diabetes care understanding and assessment of their biomedical level of glycemic control than those who did not.

Objectives

Our poster presentations at the last 3 IHA Health Literacy conferences have reported preliminary findings of our studies in health literacy levels, attitudes, and medical education techniques among high-risk NCVAMC diabetes patients.

We have examined such factors as Health Literacy levels, patients' self-knowledge of their HbA1c levels, and patient attitudes toward self-management and as prerequisites to the building of specific tailored educational interventions based on a patient's Health Literacy level, attitudes, and condition.

Health Consumers want online services, tools, and programs that can help them manage and improve their health. Our VA patient population is no different. Deloitte's 2008 Survey of Health Consumers established the following:

- Consumer interest in services such as online access to medical records and test results (78%), email communication with doctors (76%), and online scheduling (72%) is very high in 2009.
- Health Consumers are also interested in wellness programs (65%), tools that provide personalized recommendations for improving health (61%), nurse call lines (65%), and disease management programs that can help them manage their health condition (56%).

Our objective is to create an interactive blog and social networking environment as a means of creating a VA centric community dedicated to VA health education, wellness, and medical condition and disease self-management. We will begin with VA diabetic patients and expand to cover other chronic disease conditions. The environment will contain materials geared toward patients. Materials will be presented in an easy to read format and will be directed toward the optimal VA patient health literacy presentation. A substantial majority of NCVAMC patients have access to computers for communication and information gathering either personally or through a friend or relative who assists them.

Approach

We continue in our 2-year study to examine the association among health literacy, individual HbA1c control knowledge, and psycho- and socio-demographic variables. We are also examining the impact of these factors on the attendance of high-risk NCVAMC diabetic patients in prescribed diabetes educational initiatives.

Our implementation of a blog/social networking environment will give us a new clinical intervention medium for delivering health education and wellness training and involving our diabetic patients in actively managing their disease.

We recognize that dealing with chronic diseases and maintaining a healthy lifestyle are among the most important decisions we make. The reality is that too many of us have poor quality information and guidance when making our health decisions. We grow frustrated at the challenges of getting clear information about treatment options, taking medications and following medical care directions.

The Blog will be designed to navigate through the clutter and give simple and medically approved information on disease prevention & wellness on a variety of chronic diseases (beginning with diabetes.) Primary in designing the digital environment include

- Trust in validity of any information presented
- Accessibility
- Usability
- Navigation and layout
- Information content
- Stickiness (will users return regularly)

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Outcomes/Impact

We are learning that efforts must be targeted to patient groups most-at-risk. Those people are often disadvantaged in several ways beyond health. Attitudes about their disease state(s), stress, anger and fear and other social challenges interfere with a patient's treatment efforts. We have a very limited understanding of how to change self-destructive behavior in substance use, nutrition, exercise and family life, as it relates to the individual treatment needs of the high-risk diabetic patients.

The use of a digital environment should engage our patients in communal self-directed learning and support for attitude and behavior adjustment, optimal for patient disease management.

Implications for Policy, Delivery, and Practice

Case studies of high-risk patients from around the country suggest that carefully developed plans in these areas will yield good returns-on-investment of time, resources, and human capital including systemic efforts. The results of this study will help us to understand how high-risk Diabetes patients' attitudes toward health literacy and patient self-management can be influenced by the digital availability of information from medical sources as well as a community of "brother" patients. We have for too long relied on the ingrained habit of following orders from authority among our VA patients. This will give the patients an opportunity to use their ingrained drive for unit cohesiveness and abilities to give each other tactical support in pursuit of a goal.

Target Population

Our research population is 6,000+ individuals suffering from Type 2 Diabetes. Sample size is 400 participants. The overall VA patient population is about 6 million patients.

Travel Health Alert Notices in Plain Language: Feedback from International Travelers and Physicians

** Did not attend/present*

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Presenter(s) biography

At the Centers for Disease Control and Prevention (CDC), Rebecca Myers has served for 6 years as a health education specialist, team lead for editorial services, and technical writer/editor. At CDC and the American Cancer Society, she often translated complex science into plain language for a general audience. Before CDC, she had a career in journalism and education. She also served as President of Southeast Chapter of the American Medical Writers Association. She is passionate about clear, concise communication.

Project Dates: August and September 2008

Project Team: Rebecca Myers, BS, TESL; Gabrielle Benenson, MPH; Karen Marienau, MD, MPH; and Amanda McWhorter, MPH, CHES

Background of the Project

Background of Travel Health Alert Notices: Travel Health Alert Notices (T-HANs) are distributed by staff of Centers for Disease Control and Prevention's (CDC) Quarantine Stations at U.S. ports of entry. T-HANs are important tools to help slow the spread of contagious diseases. They are given to travelers who have been exposed to an ill passenger during an international flight. T-HANs provide information to travelers and physicians about the disease to which the traveler may have been exposed and what steps to take to minimize spread. Some text in the T-HAN is directed to the traveler and some to the physician. The T-HANs provide information about symptoms travelers should monitor in themselves and what to do if they get sick, including presenting the T-HAN to a physician. The T-HAN reminds physicians to report any confirmed cases to local or state public health officials. Purpose of the Project: Generic T-HANs have been used for nearly 40 years, but they have never been tested with the audience. A new series of T-HANs utilizing plain language techniques has been developed for specific syndromes and diseases. The purpose of the project was to gather feedback on the new user-friendly format with an audience of international travelers and physicians to test the clarity of the health messages and ensure they are clearly understood and effective. Project Description Methods: In August and September 2008, four focus groups and one set of key informant interviews were conducted with a total of 27 participants (n=27). Two focus groups consisted of international travelers, and two consisted of physicians. One of each group took place in New York and San Francisco. All focus group participants reviewed the Measles T-HAN. International travelers in the focus groups were chosen based on: . Frequency of travel within the past 5 years to a variety of travel destinations other than the Caribbean and North, Central, and South America; . Gender and age (balanced mix); . Ability to speak English as a second language (at least half). Physicians were chosen only

if they had patients who traveled internationally and had a specialty in one of the following fields: . Emergency medicine . Family practice . Primary care . General internal medicine Key Informant interviews were conducted in North Carolina with VFRs from India, China, Korea, Indonesia, Nigeria, and Russia, using the Pandemic Flu T-HAN.

Target Population The target population for the T-HANs includes international travelers, Visiting Friends and Relatives (VFRs), and physicians. VFRs are defined as former residents of foreign countries who travel to their former countries of residence to visit friends and relatives.

Results Overall, participants reported having a clear understanding of the content, were satisfied with the format and said that they would follow directions in the T-HANs. They remarked favorably about the readable font, bulleted items, and clear language. They also made suggestions about reorganizing material, adding local health department information for those travelers without insurance or access to health care in the United States, and providing a pandemic flu hotline for the Pandemic Flu T-HAN.

Conclusions The plain language content and format were well received by all participants. Pilot testing to seek audience feedback is immensely important. This feedback can help determine whether information is understood, how audiences might react to messages provided, and what changes should be made. This feedback will be used to revise and finalize a series of CDC T-HANs addressing communicable diseases of public health concern among international travelers.

Health Literacy: A Challenge for the Quality of Care

Project Dates: 1-8-2008 / 31-12-2010

Project Team: Danilo Orlandini, Manuela Predieri, Corrado Ruozi, Sara Baruzzo, Antonio Chiarenza, Pietro Ragni, Daniela Riccò, Mariella Martini

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BACKGROUND OF THE PROJECT: In the 2003 population-based Adult Literacy and Life Skills Survey (ALL), Italy was ranked last among the 6 participating nations in terms of the literacy level of its citizens.

In everyday life adults with low literacy face the same challenges as those whose literacy level is higher. However, these adults clearly do not have the skills needed to find and/ or understand information regarding their health status as most materials for health promotion are written for an audience with a high reading level.

Life skills such as reading, writing, arithmetic, and knowing how to speak and listen enhance an individual's ability to make choices that impact his or her health positively; health literacy (HL) is an important strategy for empowerment.

Health care organizations must ensure that citizens understand the information they receive and can translate that information into action. However, as most health care professionals have never received training in HL, they do not realize the degree to which illiteracy among their patients reduces the chances of providing effective care.

TARGET POPULATION: The professionals of the Health Authority should inform and involve individuals and organizations in developing solutions that have a positive impact on the health and welfare of people with low literacy. Anyone who needs health-related information should be able to find a social context that cares about that individual's ability to understand the information provided.

PROJECT DESCRIPTION : The Reggio Emilia Health Authority (REHA), in northern Italy, includes six community health care districts, primary care, five acute care hospitals with eight hundred beds, thirteen hospital departments, a psychiatric department, and the public health department. The goal of the REHA is to make both individuals and society aware of the problem of health literacy in order to promote information and training that are not only attentive to health issues but also to social and cultural factors.

The specific objective of the health care system is to create lasting, general solutions that have a positive impact on the health and welfare of people with low literacy. A 2003 Cochrane review recommended the use of verbal and written messages in health communication as this seems to improve patient knowledge and satisfaction. Health care professionals and organizations can do much to improve the situation. In order to achieve these objectives, REHA professionals will be trained to use tools and techniques for dealing with low literacy people when they must communicate complex medical information, or must assist people with chronic diseases. In addition, procedures will be laid down to ensure that consent is truly informed and the public's ability to interact with the health care system will be enhanced. The detection and analysis of

countless occasions in which low health literacy may jeopardize the quality of services provided, lead to envisaging a system whose health care workers are attentive to issues of literacy at all times. The first implementation actions are: 1) nominate a person in each health care unit as health literacy manager; 2) create a health authority board of experts who will define and manage the health authority strategy; 3) train the health literacy managers of the health care units; 4) collect and document the written or verbal tools used by the health care units.

OUTCOMES / IMPACT: The areas where impact that be greatest: 1) The patient's ability to find his or her own way towards appropriate services; 2) The quantity and quality of written communication and the clarity of all oral communication; 3) Easy-to-use technology for disseminating and obtaining information; 4) The clarity of policy and the support on measures for change; 5) Awareness of the close connection between health and literacy. In order to achieve these recommendations, various measures and strategies in different fields are proposed and implemented. Overall, greater attention is paid to the language and style and the layout and graphics of health information material, to the skills and abilities of health care professionals; to the healthcare organization's system actions, and to the social system and the environment of the health care organization.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

The Health Authority CEO has overall responsibility for the project and a Board consisting of Healthy Authority professionals in the departments of Quality, Communications, Professional Development, Social Impact, Health Promoting Hospitals, and Risk Management, in collaboration with the Centre for @-learning at the University of Modena and Reggio, will be formed to coordinate and run the project.

The aim is not to design and implement one single project but to foster favourable conditions across all the projects and services that make up the activity of the health authority, namely communication, quality, training, social impact functions, health promotion and risk management.

The survey of some effective factors on health literacy level among housewives in Shiraz

*** *Did not attend/present***

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Presenter(s) biography

I am working as a nurse since 1997 and have a master degree in sociology. As a researcher, I am working on social and cultural factors which have effect on health literacy for about 4 years and have a membership in section of Research and Development in Treatment Management department of Iranian social security organization-Fars province Also I am a sociology consultant in Participation Rural Approval (PRA) Projects

Project Description

As identifying the health literacy level in society and specifying the effective factors on increasing it is important for planning and targeting in social, economical, educational and health systems, this research tries to find the relation between the health literacy level of housewives and tow selected factors : the religious believes and the amount of using mass media Health literacy includes the ability to understand instructions on prescription drug bottles, appointment slips, medical education brochures, doctor's directions and consent forms, and the ability to negotiate complex health care systems. Health literacy is not simply the ability to read. It requires a complex group of reading, listening, analytical, and decision-making skills, and the ability to apply these skills to health situations. The research method is the geodesic one, and the sampling method is clustery - multistage. The statistical population of this research includes the housewives between eighteen to forty-five years old in Shiraz. The number of these housewives amounts to 151588 persons in 2007 that 400 persons among them were selected as the sample volume. The questionnaires about the health literacy level were distributed and conducted among them. The health literacy level in this research assumed as "functional health literacy" , based on Nutbeam theory .Descriptive results show that the health literacy level of 7.25 % of persons is low , 61.5% is medium and 31.25% are in high level. In this research the followings was used: SPSS software, descriptive statistics includes the frequency distribution exam, perceptive statistics (One Way - Anova) The obtained results show that each of the two theories is approved, that's the religious believes and the amount of using mass media are related to the health literacy.

Target Population housewives in Shiraz city

Outcomes/Impact:

The obtained results show that each of the two theories is approved, that's the religious believes and the amount of using mass media are related to the health literacy level

Implications for Policy, Delivery or Practice

Increasing the health of family and therefore the health of society by training mothers and housewives to know the usage of tools such as internet, and other mass medias. Also to find a good way for communication with families and transmitting information to them. And all of this can have effect on decreasing the cost of health care , improvement of social health economy and promotion of social health from the side of mothers and housewives .

Integrating health literacy education into academic preparation of health professionals

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Presenter biography

Dr. Rainey has been involved in health education for over 20 years. She has been the principal investigator on numerous health education contracts and grants, primarily dealing with the evaluation of community/public health education programs. Her work has been published as chapters in community health education textbooks and as articles in health education journals. She currently serves as secretary and commissioner on the Board of Commissioners for the National Commission for Health Education Credentialing (NCHEC).

Project description (including objectives)

After viewing the poster the audience will be able to describe how to incorporate health literacy instruction into the academic preparation of health professionals. The presentation will describe the incorporation of health literacy concepts into a course in analysis of statistical data. A course in statistical analysis of data is typically required for graduate students in the health professions. This presentation will describe the use the Rapid Estimate of Adult Literacy in Medicine (REALM) and the Newest Vital Sign to collect data. Students then used the data to explore statistical concepts related to descriptive statistics, correlation, and reliability and validity of data. Additionally, students can discuss the benefits and barriers of literacy assessment, the environment of test administration, and client acceptability/comfort with literacy assessment.

Target population: educators

Outcomes/Impact:

Students learn the statistical concepts that are required for their graduate program but additionally are exposed to issues related to the health literacy of their future clients. For many of these students, this was their first exposure to the concept of health literacy and issues involved with working with low literate populations.

Practice: This project is designed to better prepare future health professionals to work with low literate populations. Currently the university is developing an elective course in health literacy that will be offered online to graduate students as well as practicing health professionals. For those programs that can not add an additional course to their curriculum, the integration of health literacy concepts into existing courses can introduce the topic of health literacy to new professionals.

Awareness and Appreciation of Limited English Proficient (LEP) Populations: A Collaborative Approach

** Did not attend/present*

Gwen Ratermann

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Presenter(s) biography

Gwen Ratermann is currently Associate Director of the Center for Health Policy, previously serving as the Director for Health Policy at University of Missouri Health Care. From 2000 - 2003 she was Director of Government Relations for MU Health Care. Previous to her work at MU Health Care, she served as Director of the Communications Office for the Missouri House of Representatives from 1997-98 after working as a speechwriter for the House members for two years. Ratermann holds a Bachelor of Arts degree from Rockhurst College in Kansas City, MO.

Project Description

The Missouri Limited English Proficiency (MO LEP) workgroup is made up of a 21 member association from around the state and was formed in June 2007 to address the needs of Missourians with LEP. The mission of the group is "to achieve health equity by promoting best practices in access, patient safety, and quality of care for all patients in Missouri including those with limited English proficiency." This mission is designed to benefit both patients and providers by increasing communication and understanding in areas related to LEP. The aim of the MO LEP workgroup is to identify the distribution and density of LEP populations, the frequency with which health care providers come into contact with LEP individuals and the utilization of interpretation/translation services across the state. From this understanding, the group intends to find what works and identify gaps in services that need to be addressed to tailor better solutions. To gain more information, the group developed the Missouri Interpretation and Translation Survey; a twelve question, online survey which was distributed to providers around the state. The results of the study will inform the workgroup in framing recommendations as to how to address the communication barriers facing MO LEP patients.

Target Population—Missouri populations with limited English proficiency

Outcomes/Impact:

The results of the survey will provide important information about the types of interpreter/translation services available, what methods are used and to examine providers' needs. The most frequently used types of translation and interpretation services were written materials often obtained from the internet. In-person interpreter services are rare and phone services are also infrequent. Providers who answered the survey reported that interpreter services would greatly improve if the provider had easier access to written materials and if more funding and cultural competency training for staff were more readily available.

Implications for Policy, Delivery or Practice

Although not uniform throughout the survey, many reported daily use of interpreter services, showing that there is certainly a demand for professional services in corresponding areas.

Increased availability of such services would help reduce the use of family members or untrained staff. There was also a high utilization of paid services, suggesting the need for funds to support these services.

Parental Perceptions of Youth Risk Behaviors

Kerry J. Redican and Dr. David Sallee

Professor (Redican), Assistant Professor (Sallee)

Dr. Redican (Virginia Tech), Dr. Sallee (Radford University)

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Presenter(s) biography

Dr. Kerry J. Redican is a Professor of Health Promotion at Virginia Tech in Blacksburg, Virginia. Dr. Davis S. Sallee is an Assistant Professor of Health Science at Radford University in Radford, Virginia.

Project Description

The purpose of this study was twofold: First, to determine health literacy of parents regarding drug-related youth risk behaviors and, second, to examine youth risk behavior survey results in light of parental responses to related behaviors. Two instruments were used in this study. First, a modified version the Centers for Disease Control and Prevention Middle School or High School Youth Risk Behavior Surveys (YRBS) was completed by all 6th - 12th grade students in the school system. The 6th-8th grade students completed the Middle School YRBS and the 9-12th grade students completed the High School YRBS. Second, a 24 item Parent Perception Survey was developed and made available to parents of all 6th-12th grade students. The Parent Perception Survey was developed so that it could be accessed and questions answered via the internet. Of the approximately 8,460 6-12th grade students, 6,827 completed the relevant YRBS. Of the 5,100 parents/households 521 completed the online Parent Survey.

Target Population (1) 8,460 6th -12th grade students in Southwest Virginia Schools and (2) Parents of the 8,460 Southwest Virginia students

Outcomes/Impact:

The survey results for students when compared to national averages are not alarming and in most cases lower. Student perceptions of harm and of parental disapproval are high especially with respect to tobacco and marijuana. Of some concern is that not even 75% of high school students felt that marijuana was harmful. Perceived parental disapproval ranged from 79.3% (alcohol, high school) to 96.7% reported by middle school students with respect to marijuana. The extent of 30 day use which as would be expected is higher among high school students. Over one third of high school students reported using alcohol in the last 30 days and almost one-fifth (19%) reported using marijuana in the past 30 days. This extent of use, while less than national percentages is perceived as a major problem in this community. Parents, in general, agreed that drugs and alcohol is a big problem facing youth (93%), that beer advertisements encourage underage drinking (48%), alcohol abuse is a problem among students in their child's school (33%), and their child has friends who use drugs (19%). Also noted was that one-fifth (21%) of parents reported that there are weekend parties that are not monitored by parents and 26% know of parents who allow their teens to drink at home. Parents do appear to be very perceptive in terms of drugs and alcohol being a problem and acknowledging that some parents do not monitor a child's activities closely enough and in addition allow them to drink at home. With respect to

harmful effects of alcohol, tobacco and marijuana it was clear that the parents who responded felt that alcohol, tobacco, and marijuana, and inhalants were either harmful or very harmful. It is also interesting to note that high percentages of parents talked to their child about not using alcohol, marijuana, inhalants, prescription/OTC drugs, and cocaine either a lot or some. Again, the parents in this sample do appear to understand that drugs are harmful and they do talk to their children. Parents did appear to overestimate how often "most youth" get high from alcohol, marijuana, inhalants, prescription-OTC drugs, and cocaine. When students were asked how often in the last 30 days they used alcohol, 11.1% of middle school students and 36.7% of high school students reported using alcohol one or more times in the past 30 days. Parents perceived 89% of students used alcohol in any given month. With respect to marijuana, 5.2% of middle school students and 19% of high school students used marijuana one or more times during the past 30 days and parent perceived 86% of students used marijuana in any given 30 day period. The same observation held true for inhalants (7.3% of high school students reported using inhalants during the past 30 days and parents felt that 77% used in inhalants during the past 30 days and cocaine (6.2% of high school students reported 30 day use and parents reported 66%). In this Southwest Virginia community it appears that parents who responded were aware that drugs are a problem and that a substantial of the middle and high school students used drugs regularly (monthly) and this was confirmed by the results of the YRBS. Parents also understood that drugs were harmful and they did talk with their children. Based on the findings of the YRBS and Parental Survey it was concluded that: 1. Student's perceive alcohol and marijuana as harmful; 2. Parents also feel that alcohol and marijuana are harmful; 3. Parents overestimate the extent of drug use; 4. Parents understand the harmful effects of drugs and make it a point to talk with their children about the harmful effects; 5. There does not appear to be an attitude of tolerance with respect to children's drug use behaviors.

Implications for Policy, Delivery or Practice

It is recommended that parental surveys be done each time the YRBS is done. Further future studies should also include qualitative methodology to better understand the context of the YRBS and parental survey data. Finally, it is recommended that health education/promotion programs be developed and implemented that are designed to increase the health literacy of parents with respect to youth risk behaviors.

Health Information Competency: A Comparative Assessment of Rural and Non-Rural Students' Knowledge and Skills Related to Managing of Electronic (Digital) Health Information

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Presenter(s) biography

Dr. Redmond is the Department Chair and Associate Professor of Health Science at Columbus State University in Columbus, Georgia. She possesses a Doctorate in Health Administration from Central Michigan University. Dr. Redmond has also obtained her national certification as a health education specialist (CHES). She is a dedicated member of numerous community-focused organizations to include the West Central Georgia Cancer Coalition and the Building Towards Wellness Coalition.

Project Description

Background: According to the Institute of Medicine (2004), approximately 70 million Americans use the Internet to search for health information. This exploratory study investigated whether rural and non-rural residents of Georgia who have recently begun their college education and have earned less than 25 credit hours had significantly different electronic (digital) health information competencies, defined as skills and knowledge related to searching and evaluating electronic health resources. An online interactive Research Readiness Self-Assessment (RRSA) tool was used to measure health information competency scores of rural ($n = 90$) and non-rural ($n = 153$) freshmen. Independent-sample t tests revealed there was a statistically significant difference between the two groups, $t(241) = 2.23$, $p = .03$, $d = .29$, in the ability to obtain electronic health information. Specifically, compared to the rural group ($M = 16.18$, $SD = 4.37$), the non-rural group had a higher mean score for obtaining electronic health information ($M = 17.41$, $SD = 4.01$). The two groups did not differ significantly in their ability to evaluate health information, $t(241) = .14$, $p = .89$, $d = .02$, and in the overall health information competency, $t(241) = .34$, $p = .18$, $d = .18$.

Project Description: The Research Readiness Self-Assessment (RRSA) instrument was developed at a Midwestern University by Ivanitskaya, Laus and Casey (2005) to measure various aspects of health information competencies of students on their campus. The intent of the designers of the RRSA was to "measure competencies linked to such college-age health information consumer behaviors as determining possible sources of health information, conducting health information searches, judging the quality of documents found, and using those documents appropriately" (Ivanitskaya et al., 2005, p. 4). The term "research" in the assessment's title refers to behaviors of those obtaining information, evaluating the quality of the information and making decisions based on the information retrieved. Advanced research skills and knowledge are beyond the scope of the RRSA. Its main focus is on basic information literacy skills needed for managing electronic (digital) information. The research questions concerning

this study were the following: . Is there a significant difference in the overall health information competency levels between rural and non-rural students? . Is there a significant difference between rural and non-rural students in their ability to obtain health information from electronic (digital) sources? . Is there a significant difference between rural and non-rural students in their ability to evaluate the quality of health information from electronic (digital) sources?

Target Population The target population for this study were residents of Georgia that were attending college within the state as freshman and who earned less than 25 credit hours.

Outcomes/Impact:

The mean overall competency score was 29 points for rural students and 30 points for non-rural students (out of a maximum possible of 51 points), which indicates that more emphasis on research skills related to searching for and evaluating health information using electronic resources is needed in order to build competency levels. Further regression analysis confirmed that, as compared to non-rural residents, rural residents earned lower scores in the ability to obtain electronic health information. Recommendations for contributing to the increase of health information competencies by students include establishing partnerships among librarians, faculty and writing centers that are available on campus. In addition, the involvement of students in faculty publications along with course objectives that require students to conduct research using empirical literature in various disciplines is vital to the development of these skills.

Implications for Policy, Delivery or Practice

The results revealed in this study may serve as a guide for assisting academicians and health educators in developing curriculums/training programs to educate the public on how to improve their health information competency in both the rural and non-rural settings. This research may also serve as an educational insight for the public health professional by contributing to the understanding of the differences that may exist in rural and non-rural students' behavior in obtaining, evaluating, and making decisions based on electronic health information.

Promoting Health Literacy Among Prospective Adoptive Parents: An Interdisciplinary Approach

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Presenter(s) biography

Marcie Rehmar, MS is Director, Community/Patient Family Education at Nationwide Children's Hospital, Columbus, OH. She is responsible for Community Education, Patient /Family Education, and Education Operations. Named Manager of the Year in 2008, she is the recipient of multiple grants and active on local and national Boards. Through her divisions, the hospital offers over 100 community education offerings, developed over 1,000 patient education

Project Description

Background of the Project: Both Nationwide Children's Hospital and the National Center for Adoption Law & Policy were receiving numerous phone calls from adults interested in adoption but confused about the process. Through literature, web searches and prospective parent communication, we discovered : a. when contemplating adoption, prospective adoptive parents find the systems confusing, hard to navigate and overwhelming. In February of 2008, the Evan B. Donaldson Adoption Institution released principal recommendations recommending balanced, realistic view of adoption for all prospective adoptive parents focusing on appropriate skills and expectations. Additionally, a 2004 survey conducted by Adoptive Families magazine of parents found the demonstrated need for comprehensive, unbiased pre-adoptive education. b. no one was offering objective comprehensive information for prospective adoptive parents. Agencies and attorneys do an adequate job of educating clients about their type of adoption, but no one was taking a step back to holistically help adults decide what adoption venue to choose or assess if adoption was the right path for their family. Based on this analysis and a desire to help individuals navigate the adoption process using clear language and content, the two organizations formed a partnership and developed a 12 week, 3 part series for prospective adoptive families. The program has been utilized by over 1,000 people throughout Ohio (more including on-demand education) with outreach funding provided.

Project Description:

Goal: Take the mystery out of the adoption process for prospective adoptive parents by bringing information together in an objective, comprehensive, easy to understand manner.

Objective: At the end of the series, prospective adoptive parents will be able to

1. Discuss adoption options and systems
2. Select the adoption route that best meets their family's needs.
3. Demonstrate competency in navigating the adoption process

The Academy features three four-week tracks: - The CORE Track examines issues all prospective adoptive parents need to address. - The Domestic Track is for those interested in adopting children in the United States. - The International Track is for those interested in

adopting abroad. CORE Track topics include Overview of Adoption, Home study. Affording Your Adoption, Emotional and Social Implications of Adoption and Parent and Adoptee Panel. Domestic Track topics include the Step by Step Process, Finding the Adoptive Child. The Spectrum of Openness, Cultural Considerations, Preparing for the Child's Arrival: Medical and Behavioral Aspects, Adopting from the Public System and Adoptee Panel. International Track covers: the Step by Step Process, Dealing with Governments: Ours and Others, Medical and Health Care Needs of the Child, Transcultural Adoption Considerations and Parent and Adoptee Panel. Education is enacted through live classroom, teleconferencing, webinar, and on-demand.

Target Population Prospective Adoptive Parents

Outcomes/Impact:

People who attended the Academy 36% Adopted ,18% chose not to adopt: 46% in process. 82% of participants report the Academy helped them with their decision to adopt or not of those who decided not to adopt, 12% said once they learned more about the system, they realized it was not right for their family at this time.86% of folks rated the classes good to excellent in content. 100% said the program helped them prepare for the adoption process. 35% made a change in their adoption plan based on information gained in class.100% indicated being a more informed prospecting adoptive parents is helping facilitate the process.

Testimonials:I loved the program. I could get my questions answered without having to contact a specific agency. So much good information. I share my experience with everyone who speaks about considering the adoption process" .Classes helped me a lot. It is a great service." "We were so naïve. This helped us in understanding the adoption process." The information provided in the classes was extremely beneficial since I just started the process and was in the information gathering phase". Agencies and private attorneys have anecdotally told us that clients who have attended the adoption academy are better prepared in the realities of adoption making thereby streamlining and facilitating the process.

Implications for Policy, Delivery or Practice

1. The newly adopted Hague convention requirements for training of prospective adoptive parents regulates at least 10 hours of training (independent of the home study) before adoption. Clearly, there is recognition of the need for comprehensive education for prospective adoptive parents on a policy level. However, this requirement only applies to parents adopting internationally through other Hague countries. As a matter of policy, would it not make sense for ALL prospective adoptive parents - whether they are adopting from Hague countries, non-Hague countries, or domestically - to receive pre-adoption education?
2. A principal theme from the Evan B. Donaldson Adoption Institute in their Adoptive Parent Preparation Project is the recommendation of balanced, realistic view of adoption - focusing on appropriate skills and expectations as parental preparation, education and support is crucial for the stability of an adoption and for the long-term emotional well-being of all family members.
3. NCH and NCALP are in the process of discussing replication and adaptation of the Adoption Academy program for other states to meet these needs.

Creating a culture of plain language at Group Health: One health system's staff-driven initiative to advance health literacy

Jessica Ridpath, BA

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Project Title: The Group Health Plain Language Network

Project Dates: March 2007 – present

Project Team: Rhonda Aronwald, BA, Sarah Greene, MPH, Erin Gunn, BA, Lola LeBlanc, BA, Kathryn Ramos, BA, Jessica Ridpath, BA, Diane Schultz, RPh, Robyn Shean, Kim Wicklund, MPH, Sheila Yates, MPH

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BACKGROUND OF THE PROJECT

The Group Health Plain Language Network is a staff-driven, grassroots effort to advance health literacy at Group Health Cooperative, a non-profit, consumer-governed health system providing medical coverage and care since 1947. Group Health serves about 595,000 members in Washington and Idaho. The Network was formed after an initial meeting of 12 participants in March 2007 and now involves more than 30 members from nearly two dozen departments. Our approach is based on establishing a commitment to clear communication in all interactions with our patients, using plain language as a “universal precaution” in verbal, written, and Web-based communication across clinical, customer service, and health plan content. Despite limited resources, we’ve completed several projects to promote plain language across Group Health.

TARGET POPULATION: approximately 595,000 members of Group Health Cooperative

PROJECT DESCRIPTION

The Group Health Plain Language Network was founded by a small group of mid-level staff passionate about improving the health literacy of our patients by enhancing Group Health’s communication practices. Our primary objective is to initiate and support plain language as a communication standard across our organization, ultimately creating a culture of plain language for the benefit of patients and staff. Plain language is clear and concise, uses short sentences and common words, and is delivered with the audience’s needs in mind. Our decision to focus on promoting plain language frames the problem of low health literacy around the complexities of the health care system instead of the varying skill sets of our patients. It is a solution-oriented approach with a compelling business case demonstrated in other industries. Plain language also cuts across disciplines and supports patient-centered approaches to health care delivery.

The Network’s founders came from a range of Group Health departments: Center for Health Studies, Communications and Community Relations, Health Information and Promotion, Patient Health Education Resources, Patient Safety, and Pharmacy Services. This multidisciplinary coalition identified the Network’s initial objectives and continues to guide and monitor Network projects, most of which are carried out by small subgroups of members. Ongoing goals are set annually and tracked through quarterly meetings and email updates. Individual Network members have also initiated departmental plain language projects on their own, and many are involved in external collaborations focusing on health literacy and plain language. This helps us

stay abreast of new information and resources and brings in a steady flow of fresh ideas. The table below lists our primary objectives to date.

OUTCOMES/IMPACT

Our primary outcome is the successful engagement of dozens of individuals and departments in a common vision of a plain language culture. Network membership has tripled in two years, creating a wave of support and facilitating implementation of our objectives (see table below).

Objective	Outcome/Impact
<i>Identify plain language champions across Group Health and engage them in Network projects</i>	Engaged >30 members representing >20 departments: Center for Health Studies; Clinical Improvement & Prevention; Clinical Knowledge Support; Communications & Community Relations; Continuing Medical Education; Family Practice; Executive Leadership; Health Information & Promotion; Hospital Administration; Human Resources; Legal; Medical Library; Medication Safety; Nursing Operations; Patient Safety; Pharmacy Services; Population Management; Practice Leadership and Development; Quality Performance Review; Primary Care; and Web Services.
<i>Get leadership endorsement of plain language</i>	We developed a charter in support of plain language that was approved by leadership in October 2007. It gives our work credibility, justifies time spent on Network activities, and sets expectations of clear communication with patients.
<i>Develop an online plain language toolkit for all staff</i>	The toolkit was launched in October 2007. Contents include: rationale for using plain language; tips for verbal interactions, print materials, and medication instructions; a list of 700+ patient-friendly words; editing examples; and links to other health literacy resources. The toolkit had >1300 hits in its first month and averages 80 hits/month.
<i>Launch an awareness-building campaign to facilitate buy-in</i>	We promoted the toolkit in organization-wide broadcasts and newsletters for several subgroups of staff. Network members who work in communications periodically write about plain language in various news channels for staff and Group Health members. We often present our work to audiences in the group and network practices and at member events, providing information on patient resources and plain language.
<i>Provide plain language training to staff</i>	We developed a customizable “train the trainer” module to orient staff to basic plain language principles. Clinical leadership approved and began offering an online health literacy CME developed by NCQA and HRSA. Training is an ongoing goal.
<i>Revise print and web-based materials, including health education materials and consent form templates</i>	In addition to the Network’s planned editing projects, staff from diverse areas of the organization have requested plain language editing. Dozens of materials for print and web have undergone revision, such as: all print and web-based health education materials, including a complete overhaul of our diabetes materials; patient safety brochure; patient medication record and other medication management materials; health profile & patient report; annual member outreach letter; lab reminder and results letters; pre-op instructions; and many departmental consent templates, including a consent for surgery revised from >15 th -grade reading level to <7 th grade.
<i>Get patient</i>	Patient feedback informed revisions to the medication record. Focus groups to

<i>input when developing print materials</i>	assess the new diabetes materials are planned for 2009. We're exploring using existing member groups, such as the Senior Caucus, until more funding is available.
<i>Find ways to measure our impact and build a business case for plain language</i>	Anecdotal evidence suggests significant initial success, but we haven't yet formally measured outcomes of our work due to limited resources. We are exploring grant-funded opportunities and are beginning to use existing measurement tools to assess the impact of new/revised materials. We are also working with the America's Health Insurance Plans (AHIP) health literacy task force to develop measurement strategies for health literacy programs. This goal tops our priority list for 2009.

IMPLICATIONS FOR POLICY, DELIVERY, OR PRACTICE

We believe the Network's early experience provides several key insights with far-reaching implications. First, framing our initiative around a solution (plain language) rather than a problem (low health literacy) was instrumental in securing leadership support and wide-ranging buy-in. Second, plain language is a strategy that clearly aligns with other organizational goals and cuts across silos, engaging staff who may not feel directly connected to low health literacy. Third, despite new tools and training for staff, requests for plain language editing rose dramatically as staff awareness increased, indicating potential value in providing centralized editing services. Lastly, we believe our initiative demonstrates that, even with no funding, frontline staff can work together to begin to establish a culture of plain language. We hope our experience can inspire and serve as a helpful example for other health systems striving to advance health literacy.

Medical Library Association (MLA)/National Library of Medicine (NLM) Health Information Literacy Research Project

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Presenter(s) biography

Jean Shipman is Director, Spencer S. Eccles Health Sciences Library at the University of Utah. Previously, she was Director, Tompkins-McCaw Library at Virginia Commonwealth University. She served as president of the Medical Library Association for 2006-2007. Jean graduated from CWRU and Gettysburg College. She has worked in academic health sciences libraries (Johns Hopkins University, University of Washington, VCU), a hospital library (Greater Baltimore Medical Center) and with the Southeastern/Atlantic NN/LM at the University of Maryland.

Project Description

The overall goals of the Health Information Literacy Research Project were to increase health care providers' knowledge of health information literacy issues, increase provider and patient awareness and use of National Library of Medicine consumer health information resources such as MedlinePlus, and promote the role of librarians as key providers of health information literacy resources and support. The Health Information Literacy Research Project, coordinated by Sabrina Kurtz-Rossi, included a national survey of hospital-based administrators and health care providers to assess their perceived value of health literacy, their awareness of National Library of Medicine information resources and the Information Rx referral tool, and the role medical librarians can play in promoting health literacy within their institutions. A web-based survey was administered to senior hospital administrators (CEO or Executive Director Level) and health care providers using relevant portions of the American Hospital Association (AHA) membership database. Two email blasts of the survey were sent. A snowballing sampling method was also used whereby the survey was passed through hospital librarians who then contacted their administrators and health care providers. An invitation to participate in the survey was sent to 7,655 hospital administrators and health care providers. A total of 301 surveys were completed and analyzed. The response rate was approximately 4%. In addition, a formal health literacy training curriculum was developed for librarians, which was tested and refined by nine selected hospital pilot sites located throughout the United States and Canada. This curriculum addresses why health literacy is important and what affect it may have on improving patient outcomes, compliance and satisfaction, and reviews the many information resources provided by the National Library of Medicine for the general public. The final curriculum (of varying lengths of time) and associated training toolkits are available on the Medical Library Association web site (www.mlanet.org) to use to teach health literacy. In addition, a self-directed, web-based tutorial created by the association is also available on the site for health care providers to assess their own knowledge. A certificate of completion is provided at the end of the tutorial to obtain continuing education credit. The pilot curriculum was evaluated using both quantitative and qualitative methods. Qualitative feedback was collected directly from pilot site librarians via an

evaluation Webinar and pilot site summary reports. Quantitative data was collected directly from curriculum participants via a pre-/post-session evaluation and two-month follow-up assessment.

Target Population Hospital-based administrators and health care providers (e. g., physicians, nurses, health educators, and others), consumers, and patients.

Outcomes/Impact:

The majority of survey respondents felt the provision of consumer health information resources and services is critically important to fulfilling the mission of the hospital. There appeared to be a general awareness of online health resources, but little awareness of Information Rx or similar services that allow providers to refer patients to quality health information. Respondents recognized that hospital librarians presently provide many of the necessary services to effectively deliver consumer health information services, although in many cases these services are under-utilized. A strong majority of respondents felt that their hospitals could improve patients' health literacy by becoming more knowledgeable about and addressing health information literacy barriers. From April -July 2008, nine pilot site librarians conducted 67 curriculum sessions and reached 1,114 health care providers. A total of 912 pre-/post-session evaluations were returned (82% response rate). Of those who completed the pre-/post-session evaluation, 384 agreed to follow-up contact (42%). Librarians sent a follow-up assessment to these self-identified participants approximately two months after their curriculum session. A total of 183 follow-up surveys were returned (48% response rate). In addition, 150 people participated in an evaluation Webinar. The research project findings illustrate that medical librarians can be key educators of patients, consumers and health care providers about the importance of health literacy, the cadre of information resources available to empower them to learn more about their health, and that the vital role that librarians play is perceived as a way to improve the nation's health.

Implications for Policy, Delivery or Practice

Medical librarians can serve as cost-effective key educators of health literacy and quality health information resources within hospitals and academic health centers. They offer a service philosophy and information resource expertise that makes them natural providers of health information to patients and the general public. They can assist with achieving better patient outcomes, satisfaction, and compliance. Librarians need to be incorporated into institutional teams and initiatives that address health literacy as they can make a difference.

Health Literacy in Substance Abuse Treatment

*** Did not attend/present**

Project Dates: 04/02/08 to 01/31/09

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Background of the Project:

Healthy People 2010 defines health literacy as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (USDHHS, 2000). Low health literacy, while common in the US, is problematic for public health. Paasche-Orlow et al. (2005) reviewed 85 studies on 31,129 US adults, and found that 46% had inadequate health literacy skills. Furthermore, low health literacy is associated with negative health outcomes among individuals with chronic illnesses such as asthma, cardiovascular disease, HIV/AIDS, and diabetes (DeWalt et al., 2004). The goal of the present study is to assess health literacy and its correlates among adults entering treatment for substance abuse. Because substance abuse treatment requires patients to gain, understand, and apply new information in order to change their behavior, we hypothesize that patients with greater health literacy will evidence greater gains in substance abuse treatment.

Although this study is the first to formally assess health literacy among patients seeking treatment for substance abuse, other research examining the discrepancies between the readability of patient education materials and the patients’ reading abilities in US substance abuse treatment facilities has been published. One study found that the average reading level among inpatients at public treatment centers was 8.4 (8th grade level), that 36% read at below a 7th grade level, and that 15% read at below a 4th grade level. The education materials patients were given, on the other hand, were written at levels between 11th and 14th grade (e.g., AA’s *Big Book* is written at a 12th grade level). Furthermore, handbooks containing information on facility rules and regulations were written at an 11th to 14th grade level, and admission and consent forms were written at a 12th to 18th grade level (Davis et al., 1993). Another study assessing the readability of patient handout materials in a sample of 52 drug and alcohol treatment programs in the US (80% outpatient; Greenfield et al., 2005) found that the mean readability level of all materials evaluated was 11.84 (11th – 12th grade). Materials produced by NIDA had an average reading level of 13.24; materials produced by Alcoholics Anonymous had an average reading level of 13.02; and materials produced by NIAAA had an average reading level of 11.18. All were considerably higher than the average reading level of the US population, estimated to be at the 8th grade level.

Purpose of the Project:

This study is a first step toward characterizing health literacy among inpatients entering treatment for alcohol or other substance abuse problems.

Target Population:

Participants included 74 adults entering residential treatment for substance abuse in Buffalo, NY. Ages ranged from 19 to 56 ($M = 37.76$), and the majority (59%) was male. Regarding ethnicity, 65% of the sample was White, 29% African American, and 6% Latino. Many participants had not completed high school (47%). Primary drugs of abuse included alcohol (47.1%), opiates (23.5%), and cocaine (20.6%).

Project Description:

Participants were interviewed at treatment entry and again at discharge, and health literacy was assessed at both occasions using both the Test of Functional Health Literacy in Adults (TOFHLA) and the Rapid Estimate of Adult Literacy in Medicine (REALM). Outcome variables included self-reported satisfaction with treatment, length of stay in treatment (in days), and discharge status (whether the patient completed the program or not). Other variables assessed during the interviews include pretreatment substance consumption, consequences of drinking or using, knowledge about addiction, motivation to change, and self-efficacy.

Outcomes/Impact:

TOFHLA scores ranged from 14 to 36 (out of a possible 36), and indicated that participants, on average, had adequate health literacy ($M = 33.59$; $SD = 4.07$). Scores on the REALM, however, ranged from 2 to 66 (out of a possible 66) and indicated that, on average, participants read at a 7th to 8th grade level ($M = 58.87$; $SD = 11.61$). This finding is consistent with other surveys of literacy among US adults. People who score at this level on the REALM will struggle with many patient education materials; they may be able to pronounce the words but may not fully comprehend the message. TOFHLA scores may have been unduly influenced by practice effects; many participants had viewed items from the measure when they completed Medicaid applications upon admission. Therefore, REALM scores only were used in the regression models discussed below.

Scores on the TOFHLA and REALM were significantly correlated with one another ($r = .992$, $p = .000$). Patients' self-reported reading ability was significantly correlated with both REALM ($r = .671$; $p = .000$) and TOFHLA ($r = .619$; $p = .000$) scores, and was negatively correlated with the patient's estimation of likelihood of relapse after treatment ($r = -.340$, $p = .049$). Longer self-reported histories of drug or alcohol problems were negatively correlated with self-reported physical health ($r = -.384$, $p = .030$). Satisfaction with treatment was significantly and positively correlated with both REALM ($r = .926$; $p = .000$) and TOFHLA ($r = .594$; $p = .032$) scores. Test-retest reliability for the REALM was excellent, with a high correlation between scores at intake and at discharge ($r = .988$, $p < .001$). Ethnicity was a significant predictor of REALM scores ($F(2, 68) = 4.05$; $p < .05$); ethnic minority patients scored significantly lower than White patients.

Ethnicity, REALM scores, and an interaction term were entered as independent variables in a regression model predicting length of stay in treatment. Ethnicity was a significant predictor, with minorities staying longer than Whites ($\beta = 1.682$; $p = .021$). Similarly, health literacy predicted length of stay in treatment ($\beta = .982$; $p = .056$), with higher REALM scores predicting more days spent in treatment. In addition to the main effects, analyses revealed a health literacy by ethnicity interaction ($\beta = -1.422$; $p = .053$). Plotting the interaction showed that health literacy was a stronger predictor of length of stay in treatment among minority patients than among Whites. Ethnicity, health literacy, and the interaction term accounted for 13.5% of the variance in length of stay ($R^2 = .135$). Further analyses of these data will be performed to examine the

associations between health literacy, pre-treatment substance use, alcohol and other substance-related consequences, self-efficacy, knowledge about addiction, and readiness to change.

Implications for Policy, Delivery, or Practice:

Health literacy, while a topic of great concern to health care practitioners and health educators/promoters, has been relatively understudied in the field of psychology. Moreover, patients receiving treatment for psychological problems such as substance use disorders are as likely to have poor health literacy as those suffering from other chronic illnesses. Substance abuse treatment in the US has had notoriously low success rates, and it is possible that low health literacy may contribute to the high relapse rates evidenced after discharge from treatment. Because treatment for addiction in the US involves gaining new information, skills, and confidence applying those skills in difficult situations, it seems logical that health literacy may play a part in patients' experiences with and success in treatment. By taking into account the problem of low health literacy, treatment providers may be better able to facilitate these patients' gains in substance abuse treatment. In addition, tailoring treatment to patients with low health literacy may result in patients feeling more at home in treatment and therefore staying in treatment for a longer period of time, thus improving their chances for success. Moreover, low health literacy may serve as a mediator of the minority health disparities evidenced in public substance abuse treatment programs in the US. This study constituted a first step toward gaining an understanding of health literacy and its correlates among adults entering treatment at a public substance misuse treatment center. Further research is needed to explore the mechanisms by which health literacy influences treatment outcomes.

Health literacy in the context of distance caregiving

Lisa Sparks, Ph.D., Presidential Research Fellow and Professor, Schmid College of Science, Chapman University and Chao Comprehensive Cancer Center, University of California, Irvine
Jennifer Bevan, Ph.D., Associate Professor of Communication Studies, Chapman University, One University Drive, Orange, CA 92866

BACKGROUND OF THE PROJECT: How individuals accomplish the communicative act of caregiving is important not only when considering the care recipients' health outcomes, but also because the increased mobility currently occurring in our culture means that adult children and their aging parents are now more likely than ever before to move away from their families (Davidhizar, 1999; DeWit, Wister, & Burch, 1988; Finch & Mason, 1993). Further, individuals are living longer (Joseph & Hallman, 1998), often with fewer long-term care options available to them because of smaller family sizes, reduced retirement savings or economic hardship (Davidhizar, 1999; Schoonover, Brody, Hoffman, & Kleban, 1988; Finch & Mason, 1993), and female relatives who would traditionally be providing care increasingly joining the workforce (Baillie, 2007). Though long-distance caregiving is a growing phenomenon with serious health and relational communication implications, to our knowledge, the topic of caregiving from a distance has yet to be approached from a communication perspective. In this paper, we consider long-distance caregiving (LDC) as a context that combines health, interpersonal, and family communication to offer possibilities for communication scholars who seek to contribute to this emerging research area. As such, we explore strategies for using health literacy based communication programs in an effort to provide family caregiver populations with the relevant health information they need to evaluate health risks, make informed health care decisions, and direct the health behaviors in the caregiver-patient relationship.

TARGET POPULATION: Distance caregivers

PROJECT DESCRIPTION : The goal is to extend this project by conducting focus groups with distant caregivers of patients who have been diagnosed with cancer within the last year. Focus group questions will contain semi-structured questions to obtain a health literacy baseline in terms of understanding terminology and communication processes across the continuum of cancer care (prevention, detection, diagnosis, treatment, survivorship, and end-of-life issues). Data will be content analyzed and findings will be subsequently used to construct questionnaire data for the same target population. The aim is to create health literacy based communication programs for providing distant caregiver populations with the relevant health information they need to evaluate health risks, make informed health care decisions, and direct the health behaviors in the caregiver-patient relationship.

OUTCOMES / IMPACT: The aim is to create health literacy based communication programs for providing distant caregiver populations with the relevant health information they need to evaluate health risks, make informed health care decisions, and direct the health behaviors in the caregiver-patient relationship.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE: Improving cancer care and competencies for distant caregivers going through the cancer experience with loved ones.

Phase 1 of a warfarin patient education program to meet The Joint Commission's 2008 National Patient Safety Goal Requirement 3E

**** Did not attend/present***

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Project Team:

Saint Vincent Hospital (SVH)

- Kristin Tuiskula, PharmD, Pharmacy Medication Safety Fellow and Co-chair, Medication Safety Subcommittee
- George Abraham, MD, MPH, Co-chair, Medication Safety Subcommittee
- Andrea Gorman, MD, RD, LDN, Member, Medication Safety Subcommittee

Massachusetts College of Pharmacy and Health Sciences School of Pharmacy – Worcester/Manchester

- Karyn M. Sullivan, BS Pharm, MPH, Assistant Professor of Pharmacy Practice; Member, SVH Medication Safety Subcommittee
- Monina R. Lahoz, Ph.D., Associate Professor of Pharmacy Administration

BACKGROUND OF THE PROJECT:

The Medication Safety Subcommittee of Saint Vincent Hospital (SVH), a tertiary medical center in Worcester, Massachusetts, has begun to implement a warfarin patient education program to meet The Joint Commission's 2008 National Patient Safety Goal (NPSG) 3E: *Reduce the likelihood of harm associated with the use of anticoagulation therapy*. In collaboration with faculty members at the Massachusetts College of Pharmacy and Health Sciences - School of Pharmacy, Worcester, the program aims to (1) create health literacy friendly warfarin patient education materials on drug-food interactions and the importance of patient follow up for continuous monitoring of therapy following discharge from the hospital, (2) pilot in one patient care area a one-on-one patient instruction program on warfarin therapy that incorporates clear verbal communication strategies and the "teach back" method, and (3) identify and overcome as

many barriers to providing warfarin patient education, in preparation for hospital-wide implementation in the latter half of the project. Phase 1 of the warfarin patient education program was completed in fall 2008 and is the subject of the poster presentation.

TARGET POPULATION:

The target population of the warfarin patient education program is SVH inpatients receiving warfarin therapy either for the first time (newly initiated) or on a continuing regimen. On a daily basis, approximately 30 inpatients receive warfarin therapy at SVH. They will be the recipients of the warfarin patient education program when the program is fully implemented hospital-wide (projected to be in summer 2009).

PROJECT DESCRIPTION:

Phase 1 of the warfarin patient education program began in fall 2008. SVH had a patient brochure that provided information only on drug-food interactions. The brochure has never been assessed for suitability and readability. Further, it was not known how many patients actually receive a copy of the brochure, and if they did, how helpful it was to them in understanding their warfarin therapy. Three individuals independently assessed the brochure for its suitability and readability. Suitability (content, literacy demand, graphics, layout and typography, learning stimulation/ motivation, cultural appropriateness) was assessed using the Suitability Assessment of Materials (SAM) instrument. Readability of the brochure was assessed using the Fry Formula and Flesch-Kincaid Grade Level program. The brochure was revised to make it more informative and suitable to SVH patients. The revised version included a new section on the importance of patient follow up for continuous monitoring of therapy following discharge from the hospital. Patients have to have their blood drawn often to ensure they are in the target range, otherwise they may be at risk for bleeding problems or forming blood clots. The suitability and readability of the revised material was assessed also by the same three individuals. The revised brochure is being pilot-tested in Phase 2 of the program that entails one-on-one patient instruction.

OUTCOMES / IMPACT:

Phase 1 of the warfarin patient education program was completed in fall 2008. The original brochure that provided limited information (i.e., drug-food interactions) was revised and a new section (i.e., importance of patient follow up for continuous monitoring of therapy following discharge from the hospital) was added. The suitability and readability of the original and revised brochures were assessed. The revised version scored better than the original version on the SAM: $67.2\% \pm 5.9$ vs. $43.5\% \pm 13.8$; both SAM percentage ratings fell in the "adequate" category. SAM features scored as "not suitable" on the original pamphlet were modified in the revised version. Readability scores indicated that the revised version read at a lower grade level than the original pamphlet: Fry Formula - Grade 4 versus 11; Flesch-Kincaid - Grade 6.9 versus 9.8. These data suggest that while the health literacy assessment scores of the revised pamphlet are better than the original version, there is room for further improvement.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

Anticoagulants, such as warfarin, pose a significant risk of causing life-threatening bleeding or thrombosis. Many aspects of NPSG 3E, aimed at decreasing harm associated with anticoagulation therapy, have been addressed by SVH, such as developing standard order forms

and implementing an anticoagulation service. The different phases of the ongoing warfarin patient education program address the need of hospitals to comply with the NPSG 3E patient/family education aspect, that is, it should include the importance of follow up monitoring, compliance, dietary restrictions, and the potential for adverse drug reactions and interactions.

Health Literacy Among Primary Care Patients In Singapore

*** *Did not attend/present***

Project Team:

Dr Audrey Tan, Dr Wern Ee Tang, Dr Yu Ko, Dr Joyce Lee, Dr Matthias Toh

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BACKGROUND OF THE PROJECT:

Studies done in the U.S. have shown that inadequate health literacy is associated with poorer health outcomes. In Singapore, English is one of the four official languages and the working language for the majority of the working population. Many health-related materials are in English and the majority if not all appointment cards and prescriptions issued by healthcare institutions have instructions printed in English. To our knowledge, there has been no research done in Singapore to examine the extent to which patients in Singapore can read and understand the health-related written materials provided and the levels of health literacy of the local population. Hence we decided to embark on a research project to measure the level of health literacy amongst patients attending our polyclinics.

TARGET POPULATION:

Patients in 3 polyclinics (primary care clinics) in Singapore

PROJECT DESCRIPTION:

This is a cross sectional interviewer-administered survey. A convenience sample of 302 patients was recruited. Patients were approached by the interviewers and those who met the inclusion criteria were invited to participate in the study. Only those with self-reported English proficiency (i.e. able to speak and read English) were included in the study. Response rate was 65%.

The interviewer-administered survey consisted of several sections:

1. Questions on socio-demographic characteristics and general health
2. Two health literacy tests – a modified localized version of the abbreviated test of functional health literacy in adults (STOFHLA) which consists of a numeracy section and a comprehension section and the Newest Vital Sign (NVS), which is a test of a person's understanding of the information provided on a nutrition label
3. Questions assessing patients' understanding of a medication package insert

The interviewers were trained to administer the survey instruments and advised not to be biased in selecting the participants. Participating patients were encouraged to answer the survey questions to the best of their ability.

OUTCOMES/IMPACT:

Demographics: Of the 302 respondents, there were more females (57.3%) than males. The majority (52.0%) were of Chinese ethnic origin, although this was less than our national figure of 76.8%. The age range was fairly well spread out from age 21 to 75. The different educational

levels were also quite spread out, tending slightly towards the higher end as compared to our national profile.

Test scores:

- Overall, majority did well in all three tests. 83.8% got all 4 out of 4 items tested correct in the STOFHLA numeracy section while 65.9% scored 33 and above out of 36 in the comprehension section. 46% and 50% of the respondents scored full marks for the NVS and medication package insert respectively.
- Health literacy was found to be associated with age and educational levels for the modified “STOFHLA”. Gender and ethnicity, however, were not associated with the scores of any of the three tests.

The study results suggest that the English speaking patients in the polyclinics have adequate health literacy. The results were consistently good across all the tests used in this study.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

The team needs to do further research before making recommendations for policy or practice. In particular, the team will follow up with the following:

1. Validate the assessment tools that were used
2. Assess the health literacy levels of our non-English speaking patients
3. Repeat the study on a bigger scale using a national representative sample

Great Rivers Partners for Health-E People: From Exam Room Jargon to Living Room Language: Improving Healthcare Conversations, Part II: The Project's Positives, Changes Made and the Lessons Learned

Project Dates: Feb. 1, 2008- July 30, 2009 (Subcontract funding timeline)

Project Presenters: Joan Temple, M.Ed., OTR, Assistant Clinical Professor, UW-L, La Crosse, WI and Kaye Crampton, MALS, Consumer Health Librarian, Gundersen Lutheran

Address: University of Wisconsin-LaCrosse, HSC 4096, Occupational Therapy Program, , La Crosse, WI 54601.

BACKGROUND OF THE PROJECT:

In 2004, several community organizations including Gundersen Lutheran, University of Wisconsin-La Crosse, and the Community Literacy Coalition viewed the American Medical Association Foundation's video about health literacy (*Health Literacy: Help Your Patients Understand*, 2003). Members from the different groups discussed health literacy problems and agreed that some organized community action needed to be taken. The Community Literacy Council formed a health literacy subcommittee. In the meantime, Gundersen Lutheran Library Director Melinda Orebaugh attended the American Medical Association's health literacy training program entitled, *Health Literacy: Help Your Patients Understand*, and Doris Doherty of Franciscan Skemp/Mayo Health System was designing the competency for health literacy as part of Franciscan Skemp's nurse education program. Joan Temple, University of Wisconsin-La Crosse (UW-L), Assistant Clinical Professor, began educating healthcare students and professionals on the importance of recognizing low health literacy. These activities and individuals helped set the stage for a collaborative community effort to raise awareness among both health practitioners and community members about the problems caused by low health literacy.

In March, 2008, the community organization members requested and were awarded a National Library of Medicine Contract No. N01-LM-6-3503 with the University of Illinois at Chicago, Library of the Health Sciences. In June, 2008 additional grants from other sources were applied for and awarded including grants from: Southwest Wisconsin Area Health Education Center (SWAHEC), Franciscan Skemp Foundation, and Gundersen Lutheran Medical Foundation. Grants were

In May, 2008, Kaye Crampton, MALS and I presented a poster at IHA. We presented our strategy, goals, timeline, and our collaborative approach to improving healthcare conversations in our region. We were asked by several participants at last year's conference to come back this year to provide an update on our progress. Our headway has been considerable and we have learned quite a bit about taking on a project such as this. It is our hope to be able to share, in this year's poster session, what we have learned, both the positive and negatives of this project. We would like to give specifics updates and expand on the changes that needed to be made. In addition, I would like to present the use of the devices we are using for patient education including iPods, Zunes, and portable DVD players. These are currently being used in the Disease Management Group at both Gundersen Lutheran and FranciscanSkemp/Mayo Health System. We will have these devices available for IHA participants to try out during the poster presentation.

TARGET POPULATION

We recognize that low health literacy must be addressed across all populations. Our health literacy awareness efforts continue to be directed at two primary populations, current and future healthcare professionals, and the general adult public in southeast Minnesota, southwest Wisconsin, and northeast Iowa. The general adult public consists of several subgroups identified as at-risk:

- Older adults
- Low literacy population
- Homeless
- Limited English proficiency
- Rural
- Uninsured
- Low income

Note: Since the initial subcontract was submitted, we have added two minority groups to our population including Hmong and Spanish. We have had our literature translated for use in both groups.

PROJECT DESCRIPTION

The goals of our project remain the same: to raise awareness of the importance of effective health communication between healthcare professionals and patients. The original objectives for the Great Rivers Partners for Health-E People are as follows:

1. To develop a public media campaign to encourage consumers to ask questions and learn about health concerns. By providing tools and tips to consumers, and by introducing them to the Ask-Me-Three process, we hope to help them get the most of their clinic visits.
2. To educate area librarians and literacy programs to recognize low health literacy and be prepared to help consumers identify and use appropriate health information resources.
3. To educate area health practitioners, faculty and students about low health literacy as a major barrier to quality health outcomes and promote the use of proven health communication techniques.
4. To support participating health practitioners' use of technology for improving patients' and families' understanding of healthcare information. (This will include the use of iPods, DVDs, etc.)

This project has been a multi-faceted approach to health literacy awareness for our community. Through the collaboration of the Community Literacy Coalition, Gunderson Lutheran, Franciscan Skemp/Mayo Health System, and UW-L Health Professions department, we have used on-site presentations, web-based modules, and healthcare professional-patient interaction, to facilitate an improvement in health literacy awareness and healthcare communication in our community.

OUTCOMES / IMPACT

By raising awareness of health literacy issues, both the professional and consumer sectors of society, it is our hope that we will a) empower patients to visit with their healthcare providers openly and honestly about their health and care choices, speaking up when they do not understand something and b) begin to prepare current and future healthcare professionals to consider implementing measures of health literacy understanding into their practice.

During our poster presentation, we will be presenting some of our project outcomes to date. These will include feedback from health professional students regarding the impact health literacy training has had on their clinical practice, health care professionals feedback regarding the use of technology in patient education and initial feedback from our patient education questionnaire

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

Our hope when we initially began this project was to increased awareness of health literacy to improve the delivery of care. We felt this could be accomplished by improving communication, trust, and compliance between healthcare providers and consumers. Our committee has learned a great deal from our experiences and we would like to have the opportunity to share what has worked for us and what some of our pitfalls have been in our process. Hopefully, IHA participants will benefit from our experiences should they decide to tackle a project such as this.

Patients' Perceptions of Screening for Health Literacy in Primary Care: Reactions to the Newest Vital Sign

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Presenter(s) biography

Verna L Welch, PhD, MPH, is adjunct faculty in the Rollins School of Public Health at Emory University. Previously, she served as Director of the Cardiovascular Health Research Program in the Morehouse School of Medicine.

Jonathan VanGeest, PhD, is the Chair of the Department of Health Policy and Management at Morgan State University. He previously served as a Senior Scientist and Program Director in Medicine and Public Health at the American Medical Association.

Project Description

Health literacy had been identified as a cross-cutting factor affecting the quality of health care. Difficulties in identifying and caring for at-risk patients have led to recommendations for clinical screening of patient understanding. Little agreement exists, however, on the utility of such screening, with a primary concern being the possible stigmatization of patients. In this study, we examine patient reaction to clinical screening using the Newest Vital Sign (NVS), a brief instrument developed specifically for use in primary care. The objectives of the study were to explore patients' reactions to clinical screening for limited health literacy in a primary care setting. Data were collected in 2008 within the Morehouse School of Medicine, Department of Family Medicine Primary Care Clinics. Health literacy screening was implemented as part of routine intake procedures, with scores entered into the patient record. Following the visit, subjects completed a short questionnaire assessing their screening experiences.

Target Population Racial and Ethnic Minorities

Outcomes/Impact:

A total of 179 subjects completed both the NVS and the reaction survey. Nearly all (>99%) subjects reported that the screening did not cause them to feel shameful. Contrary to previous studies, there were also no differences in the reported prevalence of shame ($p < 0.33$) by literacy level. Finally, when asked if they would recommend clinical screening, 97% of subjects answered in the affirmative.>

Implications for Policy, Delivery or Practice

These results suggest that screening for limited health literacy in primary care may not automatically elicit feelings of shame. Even patients with the lowest levels of literacy were both comfortable with and strongly supportive of clinical screening using the Newest Vital Sign when used to improve the quality of care. Further research may examine, comparatively, the impact of different instruments on patients' experience with screening.

Health Literacy & Public Health

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Project Dates: Public Health Live broadcasts (originally broadcast in 2005 & 2006; currently available via web streaming)

<http://www.albany.edu/sph/coned/t2b2healthliteracy.htm>

<http://www.albany.edu/sph/coned/t2b2envirohl.htm>

Health Literacy & Public Health online course (currently live)

<http://www.nynj-phtc.org/pages/wbt.cfm>

Background of the Project:

The Center for Public Health Continuing Education (CPHCE) at the University at Albany School of Public Health provides diverse training programs for the professional development of physicians, nurses, health educators, and other health professionals. These training programs consist of archived broadcasts, online courses, live trainings, webinars and webcasts to enrich the adult learning experience. CPHCE produced two Public Health Live (PHL) broadcasts entitled "Health Literacy" and "Environmental Health Literacy" to address the low health literacy clinicians encounter among many patients. As part of the New York New Jersey Public Health Training Center, CPHCE collaborated in the development of the online course "Health Literacy & Public Health". As part of the Communicate to Make a Difference series, this course provides an opportunity for public health professionals to understand how health literacy relates to public health and to develop strategies to improve communication.

Target Population: Health educators, community health workers, physicians, nurses, and other health professionals.

Project Description:

Health literacy is the ability to read and comprehend prescription bottles, appointment slips, and other essential health-related materials required to function successfully as a patient in the health care setting. Environmental literacy is the range of skills and abilities that enable people to understand the information needed to lessen environmental risk and take positive individual and corrective actions. With the increasing emphasis on disease self-management, many patients with inadequate or marginal health literacy (up to a third of English-speaking patients over age 65) may not have the skills necessary to properly understand health messages and care for themselves. Given the magnitude of this costly issue, clinicians and public health professionals need to consider their clients' health literacy when diagnosing and treating them or when providing public health and health promotion messages.

Health Literacy, a Life-or-Death Matter in Times of Emergencies and Disasters

Project Dates: March 1, 2008 – April 1, 2009

Project Team: Beth M Wescott, MLS, Network Access Coordinator, National Network of Libraries of Medicine, Southeastern Atlantic Region, Health Sciences and Human Services Library, University of Maryland Baltimore

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BACKGROUND OF THE PROJECT: The 2004 Institute of Medicine (IOM) report *Health Literacy: A Prescription to End Confusion* has increased the focus on providing appropriate material for the U.S. population which has difficulty understanding and using health information. There has been a profusion of workshops, plain language materials and programs like “Ask Me 3” in response to the report. The retooling of materials has occurred mostly in information about diabetes, asthma, heart disease, cancer and other chronic conditions. Still, there is a continued need for appropriate materials for emergency preparedness and disaster response. These are not perceived as chronic health conditions, though they demand even more family and community cooperation than does shared medical decision making. Attention has been scant and progress toward developing and employing appropriate materials seems to lack champions.

As staff for the [Emergency Preparedness Regional Advisory Committee](#) of the National Network of Libraries of Medicine, Southeastern Atlantic Region and a certified Community Emergency Response Team member, the investigator systematically sought to identify appropriate materials for the target audience identified in the IOM report.

TARGET POPULATION: The population most likely to benefit from an increase in appropriateness, diversity, quantity and distribution of appropriate emergency and disaster materials are those needing integration of health literacy, disparities reduction and quality improvement at times of risk, preparation and response.

PROJECT DESCRIPTION :

Objectives: Survey current emergency preparedness, disaster response material for appropriateness for the U.S. population which has difficulty understanding and using health information.

Measure extant emergency preparedness, disaster response material for the U.S. population which has difficulty understanding and using health information.

Identify appropriate materials and their publishing agencies.

Approach: The investigator invited submissions from over 100 health care and health information providers completing a 2008 course in Easy to Read Health and Wellness Material and from state representatives on the NN/LM SE/A Regional Emergency Preparedness committee. The investigator located and reviewed material from major preparedness partners: CDC, American Red Cross, FEMA, and state and county health departments.

The investigator located and reviewed [Healthfinder.gov](#) and [MedlinePlus.gov](#) preparedness material identified as “Easy to Read.” The investigator reviewed emergency preparedness materials for reading level, layout, tone and applicability.

OUTCOMES / IMPACT:

This review of materials found the United States employing a 1995 material development methodology for a 2009 continuing problem. As suggested by the IOM May 2008 Roundtable on Health Literacy, it is expected that a team approach to development of appropriate materials would reach the identified audience. Appropriate materials might improve equity across the “at risk” population and result in personal, family and community-centeredness of preparedness and response materials.

For the U.S. to see the desired advances in the public's preparedness and response literacy, including mitigating risks and rebounding, materials must be developed which competently recognize the people's perceptions of barriers and supports and respectfully promote incremental behavior change.

IMPLICATIONS FOR POLICY, DELIVERY OR PRACTICE:

The imperatives of emergency preparedness and disaster response have made service and preparedness inequities of low health literacy more apparent. A preponderance of informational material fails to serve those who have difficulty understanding and using health information, so policy and practice implications abound. As is proving successful in clinical decision sharing materials, emergency and disaster materials should become the products of collaborative partnerships within and across communities. It is time to learn the lessons well practiced among diabetes educators: small, accurate bits of information, repeated messages, attainable goals, praise (reinforcement), and support for building disaster and emergency self-care skills.

Practice implications for emergency and disaster materials include:

- Simplify disaster/emergency health education materials
 - Put health literacy material development research findings into practice
 - Follow evidence-based practices for materials development
- Employ culturally sensitive illustrations which reinforce key points
- Restructure “Ask Me 3” into emergency incident concerns of the public, and produce materials which address the following concerns:
 - What might I/we experience?
 - What should I/we do and why?
- What is the expected outcome?