Brief Report

Enhancing Communication Related to Symptom Management Through Plain Language

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Abstract

Context. Symptom management is a key dimension of palliative care. In addition to aspects such as assessment and pharmacological management of symptoms, professionals also require communication skills to effectively manage symptoms in serious illness.

Objectives. Application of the Plain Language Planner for Palliative Care©, a provider tool for communicating about medication and symptoms using plain language, was tested.

Methods. Approximately 75% of the 155 health care professionals, mostly nurses, who participated in a before-and-after educational activity about the tool, provided written communication explanations using one of three medication-symptom pairs: senna for constipation, amitriptyline for nerve pain, and lorazepam for anxiety. Responses were coded for plain language characteristics: active voice, second person, use of jargon, brief sentences, reading level, and easy to understand data phrasing. Frequency counts for coding categories were calculated and compared across medication-symptom pairs before and after the education session.

Results. A comparison between written responses before and after the education session showed improvement in the use of plain language. Overall, plain language scores were highest for communication about senna (81%), followed by amitriptyline (72%) and lorazepam (77%). Across all three medication-symptom pairs, the greatest improvement in the use of plain language occurred in the use of jargon.

Conclusion. Provider training with the tool produced increased plain language. Use of the tool in provider education shows promise in increasing the health literacy for patients and families regarding symptom management.   J Pain Symptom Manage 2015;50:707–711. © 2015 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

Key Words
Symptom management, communication, plain language, palliative care

Introduction

Communication and coordination skills are needed by professionals for symptom management.[1] Patients and family members must coordinate medications among multiple providers, across inpatient and outpatient settings, and manage the integration of new prescriptions among existing regimens when new symptoms arise.[2] Health literacy concerns surrounding symptom management include the use of abbreviations, differences between single vs. dual agent preparations, differences between medications with similar sounding names, understanding daily dose limits, and use of a wide variety of administration routes.[1] A lack of understanding about medications negatively impacts quality symptom control.[1] Analgesic medication errors are more likely when understanding is limited,[3] and family caregivers less effectively make decisions about analgesic regimens.[4]

In our prior work, we found that most medical words used during care planning discussions are medication names, most of which are never explained.[5] Communication between team members and caregivers averaged fourth-grade level, and reading ease was associated with caregiver understanding of and comfort with symptom management;[6] however, as grade-level talk between caregivers and team members increased so did caregiver anxiety, and higher anxiety was associated with greater difficulty in understanding medication and symptom management. Similar research has concluded that patients with low health literacy have poorer knowledge of medication, lack knowledge of alternative forms of treatment, and are unable to understand which nonprescription medications provide relief.[7]

According to the U.S. National Library of Medicine, the appropriate level of educational health information should range between sixth- and seventh-grade reading level.[8] The Plain Language Planner for Palliative Care© (PLP) is a tool for communicating about medications and symptoms in plain language at the sixth-grade level. Using the top essential medications identified by the World Health Organization for treatment of common palliative symptoms,[9] the PLP was developed by two communication experts and a palliative care symptom expert as part of a funded communication curriculum development program for palliative care called COMFORT.[10] The PLP translates common medications and symptoms in palliative care into plain language at the sixth-grade level based on five readability indexes.[11] In contrast, using the name of the medication and medical description to explain the symptom registers at the graduate level on the same five indexes.

The goal of the study was to explore how the PLP would influence providers' explanation of a medication to address a patient symptom. Specifically, we sought to compare the plain language characteristics of explanations before and after the education session as used by providers.

Methods

Data for this study were collected at two education sessions offered to health care providers. One education session on communication about symptoms featuring the PLP was given during a three-day pain resource nurse training course and an interdisciplinary conference on aging. Sessions were provided by an author of the PLP at each site, both with formal training in communication and expertise in palliative care. Participants were predominantly registered nurses from the U.S. West Coast ($n = 122$) and 33 interdisciplinary participants (18 social workers, two registered nurses, two psychologists, two hospice administrators, and eight unspecified) from the Mid-South. This educational activity was determined to be exempt under the institutional review board at the supporting institution.

Procedures

Before and immediately after the educational presentation, participants completed written explanations about a medication and symptom. With random assignment to a medication-symptom pairing (senna for constipation, amitriptyline for nerve pain, and lorazepam for anxiety), participants were asked to write what they would say to the patient to explain the medication and how it would treat the symptom. After the education session, participants were presented with a different case and medication-symptom pair. Table 1 shows the brief case descriptions provided. All three medication-symptom pairs are detailed in the PLP.

Measure of Plain Language

Written responses were coded for six plain language characteristics using categories developed by Kaphingst et al.[12] to assess 1) reading level, 2) active voice, 3) second person, 4) use of jargon, 5) brief sentences, and 6) easy to understand data phrasing. The presence of each category was recorded as yes or no. A Flesch-Kincaid reading grade-level score was calculated using Microsoft Word grammar summary statistics.[6]

Statistical Analysis

Two health communication experts conducted a content analysis of the data by working individually and then comparing to reach agreement.[13] A portion of the data (20%) was used for intercoder training and

Table 1
Overview of Case Descriptions Used in the Education Session

Case provided before education session on PLP
  A prescription has been written for Mrs. Besti, a 70-year-old woman diagnosed with advanced colorectal cancer. Mrs. Besti has the capacity to make decisions and finds most medical talk difficult to understand
Case provided after education session on PLP
  A prescription has been written for Mr. Yamazaki, a 40-year-old man diagnosed with advanced colorectal cancer. Mr. Yamazaki has a history of substance abuse and drug-seeking behavior. He tells you "these drugs aren't doing anything for me."

PLP = Plain Language Planner for Palliative Care©.

to establish effective intercoder reliability rating using Cohen's kappa ($\kappa = 0.75$). Written responses were blinded so that coders were unable to ascertain if responses had been produced before or after the education session. Frequency counts for coding categories were calculated and compared across medication-symptom pairs before and after the education session. A plain language score was computed by taking the proportion of yes answers out of the six characteristics, with scores thus ranging from 0% to 100%.

Results

A total of 234 written responses (119 before and 115 after) were collected from 155 participants, averaging a 75% response rate for the activity. A comparison between before and after responses (Table 2) showed improvement in the use of plain language to communicate about medication and symptoms across five of the six dimensions. Use of active voice in responses increased by more than 10% across all medication-symptom pairs, with explanations about senna most likely to include active voice (93%). Similarly, use of the second person in explanations increased, with almost all the explanations about senna including use of the second person (98%). Jargon was limited after the education session, with a 30% change for senna and amitriptyline and in 85% of responses for lorazepam. The use of sentences of 15 words or less also were slightly improved, accounting for 73% (senna), 75% (amitriptyline), and 69% (lorazepam)

of explanations after the PLP was introduced. Explanations had reduced reading grade levels for senna (90%); however, explanations about lorazepam were not below an eighth-grade level after the PLP education session (74% compared with 81% before), and amitriptyline only improved by 1%. Finally, all medication-symptom pairs increased in responses with easy to understand data phrasing, with senna showing the most improvement (90%).

Overall, responses showed the largest increase in plain language score for communication about senna, moving from 63% to 81%, followed by amitriptyline from 59% to 72% and lorazepam from 69% to 77%. Three of the six plain language characteristics scored 90% or above for explanations about senna after the education session. Four of the six characteristics scored above 80% for amitriptyline, whereas the lowest scored characteristic occurred for this medication-symptom pairing (easy to understand data phrasing, 25%). Finally, the smallest improvement came in explanations for lorazepam, yet three of the six characteristics were above 80% (active voice, second person, and use of jargon). Table 3 provides examples of written responses collected before and after the education session.

Discussion

This study demonstrates the feasibility and potential utility of the PLP for health care providers after receiving an education session. With the exception

Table 2
Comparison by Medication-Symptom Pairs Before and After PLP Education Session

Characteristics of Plain Language	Before PLP Education Session, n (%)	After PLP Education Session, n (%)
Senna for constipation	$N = 37$	$N = 40$
Active voice used	25 (68)	37 (93)
Second person used	32 (86)	39 (98)
Jargon is limited and defined when used	14 (38)	28 (70)
Most sentences have 15 words or less	24 (65)	29 (73)
Reading grade level is eighth grade or lower[a]	29 (78)	36 (90)
Data phrasing is easy to understand	16 (43)	26 (65)
Overall plain language score for senna	63%	81%
Amitriptyline for nerve pain	$N = 45$	$N = 36$
Active voice used	30 (67)	30 (83)
Second person used	32 (71)	30 (83)
Jargon is limited and defined when used	25 (56)	31 (86)
Most sentences have 15 words or less	29 (64)	27 (75)
Reading grade level is eighth grade or lower[a]	36 (80)	29 (81)
Data phrasing is easy to understand	7 (16)	9 (25)
Overall plain language score for amitriptyline	59%	72%
Lorazepam for anxiety	$N = 37$	$N = 39$
Active voice used	29 (78)	35 (90)
Second person used	33 (89)	35 (90)
Jargon is limited and defined when used	25 (68)	33 (85)
Most sentences have 15 words or less	23 (62)	27 (69)
Reading grade level is eighth grade or lower[a]	30 (81)	29 (74)
Data phrasing is easy to understand	14 (38)	22 (56)
Overall plain language score for lorazepam	69%	77%

PLP = Plain Language Planner for Palliative Care[©].
[a]Using Flesch-Kincaid calculation.

Examples of Communication About Medication and Symptom Before and After PLP Education Session

Medication and Symptom	Before	After
Senna for constipation	Senna is a drug for constipation. We all get constipated from time to time, but if it goes untreated, then much bigger problems can arise! So, we give this drug to prevent bigger problems	Pain medication can make it very hard for you to poop. Senna will make it easier for things to move along in your belly
Amitriptyline for nerve pain	This drug will relieve your nerve pain	Amitriptyline is a medication with several uses. Standard use is as an antidepressant, but it is also used to help with nerve pain or pain that feels like tingling/burning
Lorazepam for anxiety	We want to relieve your discomfort as much as we can. Lorazepam will help to relax your muscles and yourself both locally in your hand and stomach and all over so that the pain and tension you are experiencing can dissipate	This medication is called lorazepam. It is a medication the doctor has prescribed for you to help you deal with what is happening to you. This medication can help lessen feelings of anxiety you have been having. I would like you to try it a little longer, and it may not work immediately. And although you feel it is not working, I want to remind you that it is to lessen the feelings of anxiety but you may still be slightly anxious

PLP = Plain Language Planner for Palliative Care©.

of the reading grade level for explanations about lorazepam, participants were able to describe medication-symptom pairs using higher frequencies of plain language after the education session on the PLP. Notably, the medication senna included the highest level of plain language acquisition, with lorazepam and amitriptyline showing a significant but lower increase of plain language inclusion.

Explaining senna (81% plain language) and lorazepam (77% plain language) were consistently described as a one-indication medication to alleviate its most commonly linked symptom. Amitriptyline (72% plain language), however, was prescribed for nerve pain, despite its primary labeled indication as a tricyclic antidepressant. Nerve pain and amitriptyline's still-poorly understood impact on this type of pain are underscored in the more complex participant descriptions for this medication. The plain language feature of easy to understand phrasing demonstrates the lower score for amitriptyline (25%), whereas lorazepam (56%) and senna (65%) understandability percentages were far higher.

For the second case activity after the education session, participants engaged a case that included a patient with drug-seeking behavior and a grievance, whereas the first case emphasized physical symptoms alone. Inherently, Case 2 required additional provider/patient education as more complex conditions were presented. Participant responses still improved in plain language percentages, with increases across all six plain language features and across all medications, with the exception of one data point within the medication of lorazepam example. Provider responses to increased socioemotional cues[14] in Case 2 further demonstrate the effectiveness of the PLP.

Recent research demonstrates a significant relationship between health literacy and medication knowledge. In short, patients with low health literacy have poor knowledge of medications.[7,15] A related study on plain language and lay understanding of medical terms demonstrated greater participant understanding in plain language conditions compared with medical jargon conditions.[16] This study suggests that providers may be able to change the way they communicate about medication and symptoms after receiving a brief training. Further research is needed to assess whether provider's increased use of plain language promotes understanding among patients and families. Inclusion of the training, as part of undergraduate or graduate education, also should be explored to determine the broader impact.

The study is limited by a relatively homogeneous sample comprising registered nurses, with no knowledge of the clinical care settings they represent or other demographic variables. However, 20% of participants represented social work and other palliative care disciplines, which suggests that the tool has utility not only for nurses but also among interprofessional team members. Research among interprofessional learners is needed to ascertain the utility of the tool from multiple provider perspectives.

Results of this study align with recent research indicating symptom management is inherently difficult in palliative care, and enhancing patient/health care provider communication is one clear pathway to ameliorating this challenge.[17] Communication about symptoms including pain often involves family members, providing an opportunity for health care providers to orient family member's to a patient's condition and educate them about medication and side effects.[18] A study of patients with end-stage illness seen by nurse case managers identified symptom management, health education, and psychosocial matters as the three most common topics of concern in their

care.[19] As more quality of life aspects are involved in symptom management, there is an increasing need for plain language. Further examination and standardization of the PLP to communicate about medications when psychosocial matters and symptom burden are prevalent is merited.

This study tested three of the most universally prescribed medicines in palliative care for common symptoms that reduce quality of life in patients and their families. Diminished understanding negatively impacts patient efficacy, interaction with health care providers, and decision making. Most often, palliative care providers serve as comanagers of patient symptoms, along with the patient and family. Standardized tools for communication have shown to positively impact this comanagement of adverse effects from disease process and treatment.[20] These findings indicate an opportunity to improve palliative care providers' communication about patient symptoms with the PLP. A copy of the PLP is available for free download from the Palliative Care Communication Institute Web site (www.pccinstitute.com).

Disclosures and Acknowledgments

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