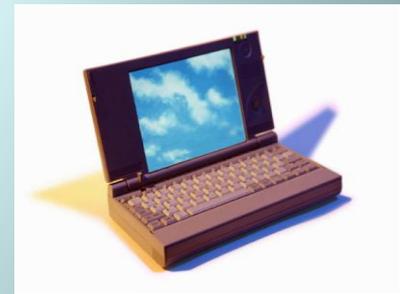




Will Introduction of a Pain Assessment Template in the EMR Result in Improvement of Pain Assessment Documentation in an Outpatient Setting

Dr. Theresa Pechaty FNP, RN, DNP





Background

The Office of the Surgeon General's Pain Management Task Force (PMTF) determined that pain management in the military treatment system should have a biopsychosocial focus and pain assessments reflect a multidisciplinary approach. Health-information technology, such as electronic health records, has the potential to facilitate the assessment of pain through the incorporation of valid pain assessment tools that would provide a comprehensive and timely assessment of pain patients.



Biopsychosocial Model

- Nursing “holistic approach”
- Church – nurses spiritual/doctors medical treatment.
- Dr. George Engel (1977) seminal work advocated change from biomedical to biopsychosocial approach to medical care.



Biological

- Addresses physical problems
- Pharmacological – NSAID, Opioids, Neurontin, Lyrica, Tricyclic antidepressants
- Nonpharmacological- physical therapy, chiropractor, acupuncture, Pilates, TENS, facet injections, botox, etc.



Psychological Aspect

Operant behavioral therapy for treatment of chronic pain (Molton, Grahamb, Stoelba & Jensena 2007).

Improving functioning by modifying overt pain behaviors that provoke reinforcement from the environment.

Can reduce pain addressing personality, gender, age, environment and culture (Eccleston, 2001)



Social Aspect

- Provides understanding of values, beliefs, hopes, emotions and historical impact on social functioning.
- Insight into an individuals interaction with environment (Coutu et al., 2007).
- Social workers address social, political, and economic resources and power to promote dignity, worth and right to self-determination (MacDonald, 2000).

Electronic Medical Record Result in Improvement of Pain Assessment Documentation in an Outpatient Setting

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PROBLEM

Many primary care providers lack proper pain management education and have a variable understanding of pain management. As a result, treatment plans for pain patients are based on diverse approaches, philosophies, and cultural beliefs that are often not in compliance with standards of care and lead to inappropriate treatment of pain patients (Upshur CC, Luckmann RS, Savageau J. (2006)). Additionally, Krebs et al., 2007 found that providers treating pain in a primary care setting often fail to fully document their treatment plans. Providers at Fort Belvoir Community Hospital document a variety of treatment plans for pain patients in the electronic medical record (EMR) that are often not in compliance with recommendations of the Surgeons General Pain Management Task Force, Drug Enforcement Agency regulations, or hospital guidelines. The FBCH pain committee is implementing several initiatives to improve compliance, however the EMR, Armed Forces Health Longitudinal Technology Application (AHLTA), used at the Fort Belvoir Community Hospital has no template to facilitate a timely and comprehensive assessment of pain patients.

BACKGROUND

In August 2009, The Army Surgeon General chartered the Army Pain Management Task Force to make recommendations for a U.S. Army Medical Command (MEDCOM) comprehensive pain management strategy that was holistic, multidisciplinary, and multimodal in approach; utilizes state of the art/science modalities and technologies; and provides optimal quality of life for Soldiers and other patients with acute and chronic pain. Health-information technology, such as electronic health records, has the potential to improve health care and facilitate the assessment of pain (Office of the Surgeon General, 2009). The Brief Pain Inventory (BPI) was chosen for this project because it is one of the most widely used instruments for assessing clinical pain, has been shown to be an appropriate measure for pain caused by a wide range of clinical conditions, is easy to use, and has been validated in multiple studies (Keller, et al., 2004).

PURPOSE

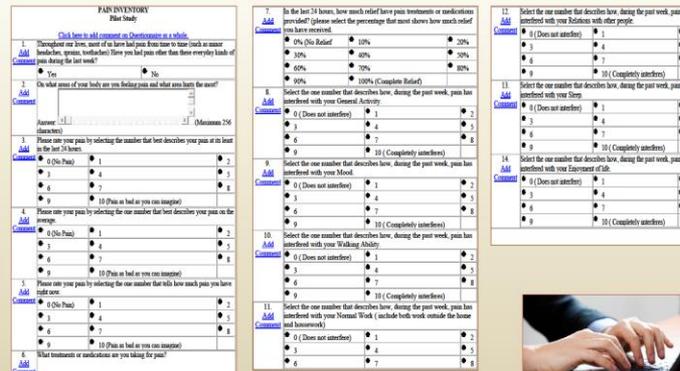
This ex post facto pilot project determines whether the pain assessment instrument Brief Pain Inventory (BPI) embedded in the EMR used at Fort Belvoir Community Hospital will improve the documentation of pain assessments by primary care providers.

METHODOLOGY

A clinic meeting will be conducted to introduce the template to credentialed providers and obtain signed consent forms from all willing participants. An electronic template of the BPI will be created and made available in the EMR one month prior to the beginning of the pilot project and providers will be given a power point presentation and individualized instruction on how to access the template.

The pilot project will be conducted over a two month period and the investigator will be available on a daily basis to assist project participants. Sixty chronic pain encounters (30 prior to initiation of the pilot project and 30 following the pilot project) will be randomly selected using ICD9 codes in the categories 723 and 724 (cervical and lumbar symptoms) for patients with chronic pain of 3 or more months in duration. Each encounter will be evaluated to determine frequency of BPI usage and improvement in documentation. Information from the encounters will be entered into an aggregate data sheet after which the encounters will be destroyed.

A paired t-test will be used to analyze the data from the aggregate data sheet. Upon completion of the pilot project, a provider meeting will be held to present the data analysis results. Providers will be asked for their opinion regarding the feasibility of using the template on a permanent basis and making the template available for use hospital-wide.



The image shows three screenshots of the Brief Pain Inventory (BPI) form. The first screenshot is the 'PAIN INTERVIEW' section, which includes questions about the location and nature of pain. The second screenshot is the 'PAIN RATING' section, which includes questions about the severity of pain and its impact on daily activities. The third screenshot is the 'FUNCTIONAL LIMITATIONS' section, which includes questions about the patient's ability to perform daily activities.

DISCUSSION

Following implementation of the pain assessment Brief Pain Inventory, it is expected that providers in Internal Medicine will improve their pain assessment documentation to include all required elements of pain assessment: pain location, pain intensity, patient functioning, treatment modalities, physical activity and relationships.

IMPLICATIONS

The BPI to assesses the severity of pain and the impact of pain on daily functions. It is a pain assessment tool that measures pain level and addresses how pain interferes with various daily activities and relationships including general activity, walking, work, mood, enjoyment of life, relations with others, and work. The BPI, therefore, can provide a comprehensive assessment that supports a biopsychosocial pain management approach proposed by the Office of the Surgeon General.



BIBLIOGRAPHY

Upshur, C, Luckmann, R, Savageau J. (2006) Primary care provider concerns about management of chronic pain in community clinic populations *Journal of General Internal Medicine*, 21(6), 652-655.

Keller S, Bann C M., Dodd S. L., Schein J., Mendoza T. R., Cleeland C. S. (2004). Validity of the brief pain inventory for use in documenting the outcomes of patients with noncancerous pain. *Clin. J. Pain* 20, 309-318. doi: 10.1097/0002508-200409000-00005.

Krebs E., Bair, M., MD, Carey, T., MD, and Weinberger, M. (2009). Documentation of pain care processes does not accurately reflect pain management delivered in primary care. *Journal of General Internal Medicine*. 25(3):194-9. DOI: 10.1007/s11606-009-1194-3

Office of the Surgeon General. (2009). Pain Management Task Force (A-75 Public). Retrieved from <http://www.armymedicine.army.mil/reports/painmanagement/taskforce.pdf>



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Goals and Objectives

Find a validated pain assessment tool that was:

1. Comprehensive
2. Focused on the biopsychosocial approach to pain management
3. Timely

Incorporate the tool Electronic Medical Record (EMR).

Determine whether providers working in an Internal Medicine clinic using the embedded tool would improve documentation of pain assessment.



The Brief Pain Inventory

15 Item questionnaire created by Dr. Cleeland at MD Anderson Hospital in Texas

Sensory: Pain intensity and or severity

Reactive: Interference with daily function

Impact of pain on daily function, location of pain, pain.

Evaluates pain and severity and impact of pain on daily function and relationships.

One of the most widely used instrument/appropriate for a wide range of clinical conditions, validated in multiple studies, and is available in multiple languages (Keller et al., 2004).



BPI Features

Purpose: To assess the severity of pain and the impact of pain on daily functions

Population: Patients with pain from chronic diseases or conditions such as cancer, osteoarthritis and low back pain, or with pain from acute conditions such as postoperative pain

Assessment areas: Severity of pain, impact of pain on daily function, location of pain, pain medications and amount of pain relief in the past 24 hours or the past week

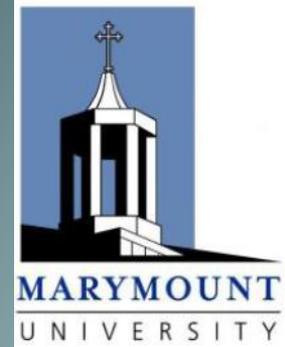
Responsiveness: Responds to both behavioral and pharmacological pain interventions

Method: Self-report or interview

Time required: Five minutes (short form), 10 minutes (long form)

Scoring: No scoring algorithm, but "worst pain" or the arithmetic mean of the four severity items can be used as measures of pain severity; the arithmetic mean of the seven interference items can be used as a measure of pain interference

Reliability: Cronbach alpha reliability ranges from 0.77 to 0.91



Main Points Covered in the BPI

Occurrence of pain

Areas of pain

Rating of the pain at its worst in the last 24 hours

Rating of the pain at its least in the last 24 hours

Specifying the average pain level

Specifying the current level of pain

Specifications of the treatments or medications being currently taken

Percentage of pain relief from medications in the past 24 hours

Specifying how much has the pain interfered in the following areas of life in the last 24 hours:

General activity

Mood

Walking ability

Normal work

Relation with other people

Sleep

Enjoyment of life



BPI English Translation

STUDY ID# _____ HOSPITAL # _____

DO NOT WRITE ABOVE THIS LINE

Brief Pain Inventory (Short Form)

Date: ____/____/____ Time: _____

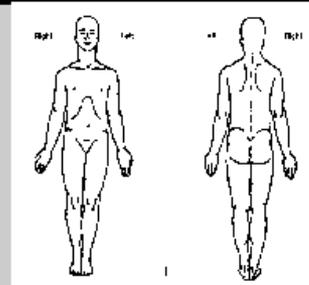
Name: _____

Last First Middle Initial

1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?

1. Yes 2. No

2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



3. Please rate your pain by circling the one number that best describes your pain at its worst in the last 24 hours.

0 1 2 3 4 5 6 7 8 9 10
No Pain Pain as bad as you can imagine

4. Please rate your pain by circling the one number that best describes your pain at its least in the last 24 hours.

0 1 2 3 4 5 6 7 8 9 10
No Pain Pain as bad as you can imagine

5. Please rate your pain by circling the one number that best describes your pain on the average.

0 1 2 3 4 5 6 7 8 9 10
No Pain Pain as bad as you can imagine

6. Please rate your pain by circling the one number that tells how much pain you have right now.

0 1 2 3 4 5 6 7 8 9 10
No Pain Pain as bad as you can imagine

7. What treatments or medications are you receiving for your pain?

8. In the last 24 hours, how much relief have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No Relief										Complete Relief

9. Circle the one number that describes how, during the past 24 hours, pain has interfered with your:

A. General Activity

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

C. Walking Ability

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

D. Normal Work (includes both work outside the home and housework)

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

F. Sleep

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

G. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not Interfere										Completely Interferes

French Translation

NUMÉRO D'IDENTITÉ DE L'ÉTUDE _____ NE PAS ÉCRIRE AU-DESSUS DE CETTE LIGNE NUMÉRO DE L'HÔPITAL _____

Questionnaire concis sur les douleurs (Format Réduit)

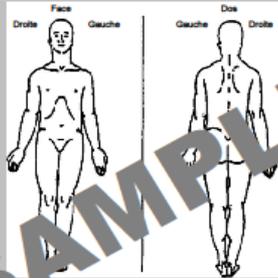
Date : ____/____/____ Heure : _____

Nom : _____ Prénom : _____

1. Au cours de notre vie, la plupart d'entre nous ressentent des douleurs un jour ou l'autre (maux de tête, rage de dents). Avez-vous ressenti d'autres douleurs que ce type de douleurs « familières » aujourd'hui ?

1. Oui 2. Non

2. Indiquez sur ce schéma où se trouve votre douleur en noircissant la zone. Mettez sur le dessin un « X » à l'endroit où vous ressentez la douleur la plus intense.



3. SVP, entourez d'un cercle le chiffre qui décrit le mieux la douleur **la plus intense** que vous ayez ressentie pendant les dernières 24 heures.

0 1 2 3 4 5 6 7 8 9 10
Pas de douleur Douleur la plus horrible que vous puissiez imaginer

4. SVP, entourez d'un cercle le chiffre qui décrit le mieux la douleur **la plus faible** que vous ayez ressentie pendant les dernières 24 heures.

0 1 2 3 4 5 6 7 8 9 10
Pas de douleur Douleur la plus horrible que vous puissiez imaginer

5. SVP, entourez d'un cercle le chiffre qui décrit le mieux la douleur **en général**.

0 1 2 3 4 5 6 7 8 9 10
Pas de douleur Douleur la plus horrible que vous puissiez imaginer

6. SVP, entourez d'un cercle le chiffre qui décrit le mieux la douleur **en ce moment**.

0 1 2 3 4 5 6 7 8 9 10
Pas de douleur Douleur la plus horrible que vous puissiez imaginer

Page 1 de 2



Chinese Translation

简明疼痛调查表(简表)

日期 _____年__月__日 时间 _____

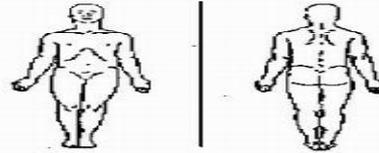
姓名 _____

一、在我们一生中大多数都曾经体验过轻微、扭伤和牙痛，今天你是否有其他不常见的疼痛？

1. 有 2. 没有

二、请你在下图中用阴影标出你感到疼痛的部位，并在最痛的部位打“×”。

左 右 左 右



三、请圈出一个数字以表示你在 24 小时内疼痛最重的程度。

0 1 2 3 4 5 6 7 8 9 10
不痛 你能想象的最痛

四、请圈出一个数字以表示你在 24 小时内疼痛最轻的程度。

0 1 2 3 4 5 6 7 8 9 10
不痛 你能想象的最痛

五、请圈出一个数字以表示你在 24 小时内疼痛的平均程度。

0 1 2 3 4 5 6 7 8 9 10
不痛 你能想象的最痛

六、请圈出一个数字以表示你现在疼痛的程度。

0 1 2 3 4 5 6 7 8 9 10
不痛 你能想象的最痛

七、目前你正接受什么药物和疗法治疗疼痛？

2. 情绪

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响

3. 行走能力

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响

4. 正常工作(包括外出工作和家务劳动)

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响

5. 与他人关系

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响

6. 睡眠

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响

7. 生活乐趣

0 1 2 3 4 5 6 7 8 9 10
无影响 完全影响



Psychometrically and Linguistically Validated

- Arabic
- Cebuano
- Chinese (Simplified)
- Chinese (Traditional)
- Croatian
- Czech
- English*
- Filipino
- French
- German
- Greek
- Hebrew
- Hindi
- Italian*
- Japanese
- Korean
- Malay
- Norwegian
- Russian
- Slovak
- Slovenian
- Spanish*
- Spanish (Spain)
- Thai

Linguistically Validated

- Afrikaans
- Bengali
- Bulgarian
- Danish
- Dutch
- Estonian
- Finnish
- Georgian
- Gujarati
- Hungarian
- Kannada
- Latvian
- Lithuanian
- Malayalam
- Marathi
- Polish
- Portuguese (Brazil)
- Portuguese (Portugal)
- Romanian
- Serbian
- Swedish
- Tamil
- Telugu
- Turkish
- Ukrainian
- Urdu
- Vietnamese
- Xhosa
- Zulu



Problem

This pilot project evaluated whether the pain assessment instrument Brief Pain Inventory (BPI) embedded in the Electronic Medical Record (EMR) used by providers in a primary care setting of Fort Belvoir Community Hospital would improve documentation of pain assessments.





GLOBAL INFORMATION
for QUALITY CARE

AHLTA Case Management Student Guide

Armed Forces Health Longitudinal Technology Application (AHLTA)

Shortcuts

- eProfile
- HAIMS
- Lab
- Immunizati...
- MODS/ME...
- New Result
- Previous E...
- Problems
- Radiology
- Sign Orders
- Telephone...
- Vital Signs...
- Vital Signs...

Appointments Telephone Consults Current Encounter S/O

<<>> Home AutoNeg ROS/HPI History FamHist Prompt IPrompt ListSize 1 Form View

Entry details for current selection

History

Duration (numeric) Onset Modifier

Value Unit

- Templates (History)
- history
 - past medical history
 - medication noncompliance
 - reported medical history
 - previous hospitalizations
 - a previous emergency room visit
 - a breast self-exam was performed
 - wearing contact lenses
 - a history of cancer
 - Allergy Free Text:
 - surgical / procedural history
 - medication history
 - taking medication
 - taking dietary supplements
 - taking vitamin supplements
 - taking OTC medications
 - prior tests were performed
 - breathing function tests were performed
 - exposure to STD
 - illness from NBC event
 - admission diagnosis of past medical/surgical history [use for free text]
 - family medical history
 - family history of heart disease
 - discussion of a violent traumatic event
 - current smoker
 - wishing to stop smoking
 - tobacco use
 - former smoker
 - never a smoker
 - chewing tobacco

Add to Default Template

ATTENTION Please remember to document **MEDICATION RECONCILIATION** (after any changes from the current visit are discussed with the patient) on the **-**EXIT/CCP**-** tab. This is essential for patient safety and is monitored.

Follow us on Twitter TSWF CORE AIM Form (Version 202014) TSWF Resources/Feedback
Items YELLOW for with logo, copy forward. Tabs with are TSWF MDET/As-U-Type

A. Chief Attending Physician: <name>. Discussed with attending who concurs with th

B. History of Present Illness(2000 Character Limit) <CTRL><ENTER> for new
<<Note accomplished in TSWF-CORE>>

C. Pain Pain Severity /10

D. Pain Assessment DoD/VA Pain ? Supplemental ?
Pain assessment
Location:
Duration:
Quality:
Factors that correlate with onset:
Frequency:
Average level:
Worst level:
Least level:

Additional HPI (Click on notepad on right for additional 2000) Assess and Document Pain In Accordance with Local Policy. Recommend a pain reassessment after any treatment/procedure and for a pain level over 6 or

<input checked="" type="checkbox"/> E. Medical Conditions (PMHx)	<input checked="" type="checkbox"/> H. Allergies entry in Allergy Allergies Verified and Updated	<input checked="" type="checkbox"/> K. Preventive Services document date when service Lipid Screening - Diabetes Screening - Aspirin Prophylaxis - HIV Screen - Colonoscopy - Tetanus (Td/Tdap) - Influenza Vaccine - Zoster Vaccine - Pneumococcal Vaccine - HPV Vaccine - Women: Cervical Cancer Screen - Pap: HPV: Mammogram - Chlamydia Screen - Osteoporosis Screen - Folic Acid -
<input checked="" type="checkbox"/> F. Surgeries/Procedures (include all hospital visits and mental health)	<input checked="" type="checkbox"/> I. Current Meds (include OTCs) including OTC meds, vitamins, herbals, etc.	
<input checked="" type="checkbox"/> G. Family History	<input checked="" type="checkbox"/> J. Social History Family/Occupation	Men: Aortic Aneurysm Screen (if ever a smoker) -



PAIN INVENTORY

Add Comment	<p>1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, toothaches) Have you had pain other than these everyday kinds of pain today?</p> <p style="text-align: center;"> <input type="radio"/> Yes <input type="radio"/> No </p>												
Add Comment	<p>2. On what areas of your body are you feeling pain and what area hurts the most?</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 5px auto;"></div> <p>Answer: <input style="width: 150px;" type="text"/></p>												
Add Comment	<p>3. Please rate your pain by selecting the number that best describes your pain at its worst in the last 24 hours.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (No Pain)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Pain as bad as you can imagine)</td> <td></td> </tr> </table>	<input type="radio"/> 0 (No Pain)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Pain as bad as you can imagine)	
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<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8											
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Add Comment	<p>4. Please rate your pain by selecting the one number that best describes your pain at its least in 24 hours.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (No Pain)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Pain as bad as you can imagine)</td> <td></td> </tr> </table>	<input type="radio"/> 0 (No Pain)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Pain as bad as you can imagine)	
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<input type="radio"/> 9	<input type="radio"/> 10 (Pain as bad as you can imagine)												
Add Comment	<p>6. Please rate your pain by selecting one number that tells how much pain you have right now?</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (No Pain)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Pain as bad as you can imagine)</td> <td></td> </tr> </table>	<input type="radio"/> 0 (No Pain)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Pain as bad as you can imagine)	
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<input type="radio"/> 9	<input type="radio"/> 10 (Pain as bad as you can imagine)												



<p>Add Comment</p>	<p>7. What treatments or medications are you taking for pain?</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div> <p>Answer: <input type="text"/></p>														
<p>Add Comment</p>	<p>8. In the last 24 hours, how much relief have pain treatments or medications provided? (please select the percentage that most shows how much relief you have received.)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0% (No Relief)</td> <td style="width: 33%;"><input type="radio"/> 10%</td> <td style="width: 33%;"><input type="radio"/> 20%</td> </tr> <tr> <td><input type="radio"/> 30%</td> <td><input type="radio"/> 40%</td> <td><input type="radio"/> 50%</td> </tr> <tr> <td><input type="radio"/> 60%</td> <td><input type="radio"/> 70%</td> <td><input type="radio"/> 80%</td> </tr> <tr> <td><input type="radio"/> 90%</td> <td><input type="radio"/> 100% (Complete Relief)</td> <td></td> </tr> </table>			<input type="radio"/> 0% (No Relief)	<input type="radio"/> 10%	<input type="radio"/> 20%	<input type="radio"/> 30%	<input type="radio"/> 40%	<input type="radio"/> 50%	<input type="radio"/> 60%	<input type="radio"/> 70%	<input type="radio"/> 80%	<input type="radio"/> 90%	<input type="radio"/> 100% (Complete Relief)	
<input type="radio"/> 0% (No Relief)	<input type="radio"/> 10%	<input type="radio"/> 20%													
<input type="radio"/> 30%	<input type="radio"/> 40%	<input type="radio"/> 50%													
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<input type="radio"/> 90%	<input type="radio"/> 100% (Complete Relief)														
<p>Add Comment</p>	<p>9. Select the one number that describes how, during the 24 hours, pain has interfered with your General Activity.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (Does not interfere)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Completely interferes)</td> <td></td> </tr> </table>			<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2													
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<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8													
<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)														
<p>Add Comment</p>	<p>10. Select the one number that describes how, during the past 24 hours, pain has interfered with your Mood.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (Does not interfere)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Completely interferes)</td> <td></td> </tr> </table>			<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
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<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8													
<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)														
<p>Add Comment</p>	<p>11. Select the one number that describes how, during the past 24 hours, pain has interfered with your Walking Ability.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="radio"/> 0 (Does not interfere)</td> <td style="width: 33%;"><input type="radio"/> 1</td> <td style="width: 33%;"><input type="radio"/> 2</td> </tr> <tr> <td><input type="radio"/> 3</td> <td><input type="radio"/> 4</td> <td><input type="radio"/> 5</td> </tr> <tr> <td><input type="radio"/> 6</td> <td><input type="radio"/> 7</td> <td><input type="radio"/> 8</td> </tr> <tr> <td><input type="radio"/> 9</td> <td><input type="radio"/> 10 (Completely interferes)</td> <td></td> </tr> </table>			<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
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<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8													
<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)														



12. Add Comment	Select the one number that describes how, during the past 24 hours, pain has interfered with your Normal Work (include both work outside the home and housework)		
	<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2
	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8
	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
13. Add Comment	Select the one number that describes how, during the past 24 hours, pain has interfered with your Relations with other people.		
	<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2
	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8
	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
14. Add Comment	Select the one number that describes how, during the past 24 hours, pain has interfered with your Sleep.		
	<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2
	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8
	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	
15. Add Comment	Select the one number that describes how, during the past 24 hours, pain has interfered with your Enjoyment of life.		
	<input type="radio"/> 0 (Does not interfere)	<input type="radio"/> 1	<input type="radio"/> 2
	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8
	<input type="radio"/> 9	<input type="radio"/> 10 (Completely interferes)	



Method

This project used a quasi-experimental design using nonequivalent groups to determine the difference, if any, between the introductions of a pain assessment documentation tool, the Brief Pain Inventory (BPI), as a template embedded into the existing EMR and improvement of pain assessment documentation.



Results

The data was aggregated and summarized and a paired t-test and Wilcoxon signed rank test were used to compare results between patient encounters pre- and post-implementation of the BPI. Strong evidence demonstrated a high effectiveness of the BPI to improve pain assessment documentation, particularly in the area of patient functioning: general activity, walking, work, mood, enjoyment of life, relations with others, and sleep.

Table 1. Pre-Post score differences

Item	Pre (%) Compliance	Post (%) Compliance	Per cent difference	P-value ¹	P-value ²
Pain Location	96.7	100.0	3.3	.326	.317
Pain Severity	100.0	100.0	0.0	1.0	1.0
Physical Ability	10.0	100.0	90.0	<.001	<.001
Emotional Status	3.3	100.0	96.7	<.001	<.001
Social Relationships	6.7	100.0	93.3	<.001	<.001
Pharmacological Treatment	80.0	100.0	20.0	.012	.014
Non-pharmacological Treatment	86.7	100.0	13.3	.043	.046
Total	54.8	100.0	45.2	<.001	<.001

¹Paired t-test

²Wilcoxon signed rank test



Conclusion

Embedding a validated tool for comprehensive pain assessment in an EMR enables providers to perform an expedient and comprehensive assessment of pain patients that reflects a multidisciplinary approach to pain management.

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Questions?