An Evidence-Based Approach Unexplained Symptoms in Primary Care
SGIM 34th Annual Meeting, Phoenix, Arizona May 4, 2011

**Agenda** slide numbers

1:30 – 1:40pm  Introductions, announcements (Dr. Dwamena) 1-2

Objectives (Learner, Workshop) 3-4

1:40 – 1:50pm  Video Part I with discussion (Dwamena) 5

1:50 – 2:10pm  Classification and Diagnosis of MUS (Dr. Smith) 6 – 17

2:10 – 2:30pm  Treatment: Evidence for the method (Dr. Dwamena) 18-32

2:30 – 2:50pm  Treatment: The core skills (Dr. Fortin) 33 - 46

2:50 – 3:00pm  BREAK

3:00 – 3:30pm  Faculty demonstration of skills with discussion (Drs

Smith-Fortin; Dwamena) 47

3:30 – 4:30pm  Participant role-plays (small groups) 48

4:30 – 4:40pm  Video Part 2 with discussion (Dr. Dwamena) 49

4:40 – 4:45pm  Other Keys: Consultations and Hospitalization (Dr.

Fortin) 50

4:45 – 5:00pm  Feedback and Evaluations 51
An Individualized, Evidence-Based Approach To Medically Unexplained Symptoms

1Francesca C. Dwamena, MD MS
2Auguste H. Fortin VI, MD MPH
3Robert C. Smith, MD ScM

1. Michigan State University; 2. Yale University

SGIM National Meeting
Phoenix, Arizona May 4, 2011

Getting Started

1. Introductions
2. Announcements
   1. Evidence-based patient centered interviewing workshop
   2. Slides, annotated bibliography, faculty information in handout
   3. Please fill out evaluations before you leave
Learner Objectives

Participants will be able to:

1. Describe steps required to diagnose “Medically Unexplained Symptoms” (MUS) in primary care.

2. Assist MUS patients in
   - understanding their illnesses
   - committing to participate in their care.
   - setting and achieving realistic goals

3. Negotiate treatment plans with patients with MUS

Workshop Objectives
Video Presentation:

• A 34 year old female with intractable diarrhea, nausea/vomiting, abdominal pain

What do we mean by MUS?

• Symptoms that are not adequately explained by the presence of organic disease (metaphor for psychic distress)

🌟 Becomes a problem when there is high utilization
How do MUS arise?

- Often understandable in context of patient history and circumstances
- Mechanism --- patient avoids emotion
  - Psychodynamic – ineffective emotional expression
  - Behavioral – reinforcement of illness behaviors
  - Socio-cultural – emotional suppression
  - Biological – gate control theory

DSM-IV Classification of MUS

- Somatoform disorders: not used in primary care
  - Somatization disorder (SD) – very rare
  - Hypochondriasis
  - Chronic pain
  - Conversion disorder
  - Miscellaneous

* Only SD validated; Overlapping definitions limit use for classification
Syndromes of MUS in Medicine

- Chronic Fatigue Syndrome
- Fibromyalgia
- Irritable Bowel Syndrome
- Chronic pain: back, pelvic, head, neck, abdominal, chest etc. for each specialty

* Overlapping definitions limit use for classification, but useful for labeling; not useful for diagnosing mild MUS / minor acute illness

Proposed Classification

- Better to think of MUS as one entity on a continuum with 3 parameters:
  - Severity (utilization, symptoms)
  - Duration
  - Co-morbidity

Smith RC and Dwamena FC. Classification and diagnosis of patients with Medically Unexplained Symptoms J Gen Intern Med, 2007 22(7):685-91
Normal-Mild (~80% MUS pts.)

Diagnosis:
- H&P + observation (e.g., weeks eye problem; months for back pain).
- Avoid unnecessary testing

Treatment:
- Reassurance, positive PPR
- Symptomatic treatment

Characteristics:
- Low utilization
- Few symptoms
- Acute (days – weeks)
- Co-morbidity not studied

Moderate (~15% MUS pts.)

Diagnosis:
- H&P + observation initially
- Definitive work-up if does not resolve
- Organic disease rare after negative definitive work-up
- Diagnosis of co-morbid psychiatric disease

Characteristics:
- High utilization
- >2 symptoms
- Sub-acute (1-6 months)
- 20% depression, anxiety or other psych disorder; Neurotic personality
**Severe MUS (~5-6% MUS pts.)**

**Diagnosis:**
- Definitive lab and/or consultation
- MRI, or CT for chronic back pain
- CT, colonoscopy for chronic abdominal pain with altered bowel habits
- Laparoscopy for chronic pelvic pain
- No need to repeat if definitive work-up was negative
- Observation over time
- Diagnosis of co-morbid psychiatric disease

**Characteristics**
- High Utilization
  - Multiple, persistent symptoms
- Chronic (>6 months)
- ≥67% with psychiatric disorder
- 61-72% personality disorder

**Differential Diagnosis:** (Can co-exist with MUS)

**Psychiatric disorders**
- Depression, anxiety
- Panic disorder
- PTSD; sexual/physical abuse
- Personality disorder
- Substance abuse/dependence

**Malingering**
- External incentive

**Factitious disorders**
- No external incentive

**Organic diseases - consider conditions that**
- Rare e.g., Wilson’s Disease
- Have vague or unusual presentation e.g., MS, Lyme, porphyria, celiac sprue
- Have prominent psych symptoms e.g., carcinoma of pancreas, subdural hematoma, or ulcerative colitis
Our Case – Ms G

• Characteristics:
  – High utilization, Multiple symptoms
  – Chronic; recent acceleration
  – Both medical and psychiatric co-morbidity
    • Type 2 DM, OSA, depression, anxiety, dependent personality, obesity

* i.e., she had severe MUS

Our Case – Ms G

Diagnosis: To rule out organic disease,

• We reviewed med records
  – CT scan abdomen (2 non-obstructing stones), EGD, colonoscopy (2 years prior), cholecystectomy

• Ordered the following in hospital
  – stool studies, antiendomyseal antibodies, repeat CT (same), 24° urine VIP, 5-HIAA, ERCP with sphincterotomy, repeat colonoscopy with terminal ileum visualization (mild anemia)

• And followed her over time
Questions?

Treatment of Moderate or Severe MUS
Primary Care Clinicians Treat Patients with Medically Unexplained Symptoms: A Randomized Controlled Trial

Robert C. Smith, MD, ScM,1 Judith S. Lyles, PhD,1 Joseph C. Gardiner, PhD,2 Corina Sirbu, PhD,2 Annemarie Hodges, MA,1 Claire Collins, RN, PhD,3 Francesca C. Dwamena, MD,1 Catherine Lein, RN, FNP,2 C. William Given, PhD,4 Barbara Given, PhD,1 John Godbees, PhD4

1Department of Medicine, Michigan State University, East Lansing, MI, USA; 2Department of Epidemiology, Michigan State University, East Lansing, MI, USA; 3College of Nursing, Michigan State University, East Lansing, MI, USA; 4Department of Family Practice, Michigan State University, East Lansing, MI, USA; 5Department of Economics, Michigan State University, East Lansing, MI, USA.

206 high utilizing patients with MUS

- Primary care Nurse Practitioners
- Evidence-based Patient centered approach
- ECGN (education, commitment, goals, negotiation)
- Symptomatic treatment
- Antidepressant (usually)

Intervention vs. Usual care

- Improved mental function
  (OR: 1.92, CI = 1.08 – 3.40)
  - Improved patient satisfaction, physical disability (p = 0.001, p = 0.02 respectively)
  - Decreased use of narcotics and benzodiazepines (p = 0.043)
  - Increased use of full dose antidepressants (p = 0.037)

Primary Care Physicians Assisted by Case Manager Can Also Treat MUS

Primary Care Physicians Treat Somatization

Robert C. Smith, MD, MS1,4, Joseph C. Gardiner, PhD1, Zhehui Luo, PhD1, Susan Schooley, PhD2, Lois Lamerato, PhD1, and Kathryn Rost, PhD5

1Michigan State University, East Lansing, MI, USA; 2Henry Ford Health System, Detroit, MI, USA; 3Florida State University, Tallahassee, FL, USA; 4R32 Clinical Center, East Lansing, MI, USA.

BACKGROUND: We hypothesized that somatizing patients managed by primary care physicians (PCPs) would improve with a relationship-based intervention.

METHODS: We randomized 30 adults with medically unexplained symptoms to treatment or usual care. Four PCPs were trained to intervene with cognitive-behavioral, pharmacological, and patient-centered management and deployed the intervention with seven scheduled visits over 12 months. Outcomes obtained at baseline and 12 months were: Mental Component Summary (MCS), the primary endpoint, and measures of physical and psychological symptoms and of satisfaction with the PCP.

RESULTS: Patients averaged 52.5 years; 83.3% were female; 79.6% were black. Using a difference of differences approach, we found that the intervention produced a large effect size (ES) (0.82; CI: 0.68 to 1.03) for the MCS in the predicted direction, similar to the ES for physical (0.80; CI: 0.55 to 0.10) and psychological (1.10; CI: 1.03 to 1.18) measures and for depression, high-utilizing patients with medically unexplained symptoms (MUS). However, treatment of MUS by primary care providers has been infrequent and the results are mixed1–4. Not using the cognitive-behavioral treatment (CBT) and antidepressants we used, two studies had no impact on outcomes5–6, while the other showed a decrease in symptoms7, according to a recent review of RCTs for treatment of somatoform disorders5.

This brief report describes a pilot study of MUS treated by primary care physicians (PCP) assisted by a case manager (CM) with an intervention similar to our previous one using NPs.

METHODS

1) Study Design: High-utilizing MUS patients at Henry Ford Health System (HFHS) were randomly allocated to treatment conducted by trained PCPs and a case manager (CM) or to usual care. The Mental Component Summary (MCS) of the Short Form-36 (SF-36) was evaluated 12 months post-baseline as the primary endpoint5,6. Supplementary outcomes also were measured.
How can we maximize treatment?

In their own words: qualitative study of high-utilising primary care patients with medically unexplained symptoms
Francesca C Dwamena*, Judith S Lyles, Richard M Frankel and Robert C Smith

Address: 1Department of Medicine, Michigan State University, East Lansing, MI, USA. 2Department of Community Health, Lansing, MI, USA and 3Health Services Research and Development Center of Excellence, Roche/Health Services Research and Development Center of Excellence, Roche/University of Michigan, Indiana University, Indianapolis, IN, USA

Email: Francesca.C.Dwamena@htc.msu.edu; Judith.S.Lyles-lylesj@michigan.gov; Richard.M.Frankel@ipu.edu; Robert.C.Smith-robencsmith@htc.msu.edu

* Corresponding author

Published: 23 September 2009
Sample - Characteristics

- 16 (84%) were females
- 9 (47%) married
- 14 (74%) > 2 years of college
- Mean age 48 years (31 – 65)
- >11 visits/year; 69.6% medically unexplained per chart review
- Only 7 (37%) diagnosed MUS (5 fibromyalgia, 2 IBS)

So, typical primary care patients with a lot of visits (or symptoms);
- many not recognized by doc as having MUS --- need to diagnose to treat.
Qualitative Methods – Long Interview
(60 – 90 minutes)

Open-ended 30 – 45 minutes

Iteratively developed list of topics
- Explanatory models, focus of control, health-seeking behavior, abuse, gender effects, relationships, expectations for future

Taped and transcribed verbatim

Qualitative Methods – Grounded Theory

Read 5 transcripts each
Prelim Themes by consensus
Tested themes in another 5
Working themes by consensus
Tested working themes in rest
Reread all 19 transcripts
Major categories, relationships
Results

• There were 3 different types of patients
• The 3 types wanted different things from their visits

<table>
<thead>
<tr>
<th></th>
<th>Coping (n=4)</th>
<th>Classic (n=9)</th>
<th>Worried (n=6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (SD)</td>
<td>54.5 (9.8)</td>
<td>47.0 (10.9)</td>
<td>53.2 (6.9)</td>
</tr>
<tr>
<td># Female (% group)</td>
<td>3 (75)</td>
<td>8 (89)</td>
<td>5 (83)</td>
</tr>
<tr>
<td>≤ 12 years school</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>14 years</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>≥ 16 years</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td># Severe MUS (%)</td>
<td>1 (11)</td>
<td>5 (56)</td>
<td>3 (33)</td>
</tr>
<tr>
<td># Moderate MUS (%)</td>
<td>3 (30)</td>
<td>4 (40)</td>
<td>3 (30)</td>
</tr>
<tr>
<td>Mean # visits/year (SD)</td>
<td>11.0 (2.7)</td>
<td>11.4 (3.1)</td>
<td>16.0 (9.6)</td>
</tr>
<tr>
<td>Mean % visits MUS (SD)</td>
<td>0.68 (0.24)</td>
<td>0.66 (0.22)</td>
<td>0.74 (0.02)</td>
</tr>
</tbody>
</table>

Coping High Utilizers (*non were diagnosed by PCP with MUS)

Insight
• Was present
• From previous therapy

Symptoms
• Not disabling
• Not point of focus

High utilization
• Physician driven
• Multiple tests
• Follow-up visits

What they wanted:

Explanation for symptoms
No unnecessary tests or treatments
Classic Somatizers (*Most diagnosed, but no specific MUS treatment perceived by patient)

Insight
- Noticeably absent
- Still raw from past trauma

What they wanted

Symptoms
- Disabled by symptoms
- Focused on symptoms

Support

Management of symptoms, not drugs

High utilization
- Physician and patient driven
- Symptoms
- Ineffective treatments

Worried High Utilizers (*Only one had been diagnosed with MUS by PCP)

Group with severe and moderate MUS
- Insight
- Symptoms focus
- Not much disability

What they wanted

Worried
- Knew docs make mistakes
- Not told their docs

Complained
- Access to docs
- Time spent with them
- Healthcare system

To be taken seriously

To be sure there was no organic disease
Bottom Line

• Patients with MUS want and need different things from encounter
  – Explanation
  – Support
  – Treatment (not necessarily drugs)
  – Respect/Reassurance

• Individualize by assessing their unique needs and meeting them.

Treating MUS

• **Foundation**: Patient-centered skills to establish and maintain a successful doctor-patient relationship

  1. **Education**: Help patient to understand illness
  2. **Commitment**: Help patient to actively participate in care
  3. **Goals**: Help patient to set realistic long-term goals and specific short-term goals to achieve them
  4. **Negotiation** rather than prescription: Share decisions about pharmacologic and non-pharmacologic treatment elements with patient

  *(ECGN)*
Establishing & Maintaining a Successful Relationship with Patient

- Relationship-Building Skills
  - Listen
  - Ask about emotions
  - Express empathy
- Awareness of Self

Relationship-Building Skills

LISTEN
1. Non-focusing
   • silence
   • nonverbal encouragement
   • neutral utterances
2. Focusing
   • echoing
   • requests
   • summarizing

ASK ABOUT EMOTION
1. Direct
2. Indirect
   • impact
   • belief
   • self-disclosure

EXPRESSION EMPATHY
1. Name
2. Understand
3. Respect
4. Support
Express Empathy

• “NURS” often
  • Name: “You say being disabled by this knee pain makes you angry.”
  • Understand: “I can understand your feeling this way.”
  • Respect: “This has been a difficult time for you. You show a lot of courage.”
  • Support: “I want to help you to get better.”

Developing Self Awareness

• Mindfulness
  – paying attention, on purpose, to one's own mental and physical processes during everyday tasks, so as to act with clarity and insight
  – a set of habits of mind and habits of practice in the moment

• Can be enhanced by:
  – Meditation
  – Journaling
  – Balint Groups
  – Advanced Communication Training with Personal Awareness Component
    • American Academy on Communication in Healthcare (AACH)
      – www.aachonline.org
    – Finding Meaning in Medicine Groups
      – www.meaninginmedicine.org
## Education

<table>
<thead>
<tr>
<th>ASK</th>
<th>What they fear</th>
<th>TELL</th>
<th>Confidently</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>What do you think (fear) might be wrong?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Good news is no life threatening disease</td>
<td>• Good news is no life threatening disease</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• We do not need any more tests</td>
<td>• We do not need any more tests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Illness is real, “not in your head”</td>
<td>• Illness is real, “not in your head”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• It is common, it has a name, and you have experience</td>
<td>• It is common, it has a name, and you have experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• We think it is caused by…</td>
<td>• We think it is caused by…</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bad news is it cannot be cured</td>
<td>• Bad news is it cannot be cured</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• But you can feel better and get on with your life</td>
<td>• But you can feel better and get on with your life</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASK</th>
<th>If they understand</th>
<th>ASK</th>
<th>This is a lot to throw at you. Can you tell me what you understand so far?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## What can you say to help patients understand...

- Chronic pain
- Irritable bowel syndrome
Commitment

ASK for commitment

I am committed to helping you feel better, but I can’t do it alone. A lot of effort, especially from you. We can go at your pace, but you have to be on board. Are you ready?

ASK again and again

• Are you really committed to walking? On scale 1 to 10 where would you put yourself? What would it take to do better?
• What 1 or 2 things can you commit to doing by our next visit?
• You thought that walking 15 minutes 2X/week was possible for you. What got in the way?

What would you say to following patients?

• Multiple no-shows

• Not making progress in changing unhealthy behavior
Commitment **DOs** and **DON’Ts**

**DO**
- Ask for commitment again and again; key to success
- Acknowledge patient’s plight and obstacles
- Praise small victories
- Express curiosity and be patient **NURS!**
- Use contracts to emphasize plan and partnership

**DON’T**
- Use language that blames the patient
  “You can’t keep doing the same things expecting different results…”
- Give up when success is elusive or fleeting

---

**Goals**

**ASK**
- What would you be doing if you did not have these symptoms?
  - Better relationships
  - Improved work/school record
  - Improved functioning
  - Improved symptoms

**ASK**
- Even though there is no cure, you can do/have some of these. What would you like to have/do in the next 6 to 12 months?

Assess and celebrate progress at each visit
To Operationalize Long Term Goals

**ASK**  
*What can you accomplish by next visit?*

- Walk 3 blocks 3X/week for 2 weeks
- Meditate for 10 minutes everyday
- Swim for 30 minutes 3X/week

**SUMMARIZE**

- You will stretch for 10 min each day and walk outside for 30 minutes on Mon, Wed, and Fri, right?
- What will you do if it rains?

**Review, revise, update goals each visit**

---

**Negotiation**—a) Non-Pharmacologic Treatment

- Regular Visits
- Agreement not to self-refer
- Exercise
- Physical Therapy
- Relaxation techniques
- Involvement of significant other
5. **Negotiation** – b) Pharmacologic Treatment

1. Antidepressants
   - Anyone going through this would be depressed.
   - The test shows that you have major depression.
   - X helps significantly to improve pain.
   - We can stay away from X and try Y.
   - It can help the pain and also help you to sleep.
   - We can start low dose so you can get used to it.
   - Would that be alright with you?

---

**Negotiation** – b) Pharmacologic Treatment cont’d

2. Wean Narcotics and benzodiazepines
   - Z doesn’t work very well in the long run.
   - As X builds up in your system, we can wean Z.
   - Don’t worry; if we have to, we can add it right back.
   - I want to help you feel better, not worse.
   - Take Z the same way everyday. Don’t skip or take more no matter how you feel.
   - Think this week about which dose you can drop.
Demonstration: Development of Initial Plan

• Discussion (assign components)
  1. How did he establish/maintain relationship? **NURS** (Name, Understand, Respect, Support)?
  2. How did he **educate** (what were elements?)
  3. How did he help patient to **commit**?
  4. How did he help patient to set **goals** (long-term, short-term)?
  5. How did he **negotiate** non-pharmacologic and pharmacologic treatment?

It’s your turn!
Our Case – Ms G

• Video
• Long term goals achieved:
  – Better work record (missed 63 days in 5 months vs. 5 days in 5 years)
  – Successful marriage
  – Two beautiful babies
  – Able to anticipate and control exacerbations

  *Low utilization (from every 2 to 3 weeks to 2-3 times per year)

Consultation and Hospitalization

• Chose consultants who
  – understand MUS and after appropriate evaluation are willing to tell patient - “no organic disease”
• Prepare
  – consultants to prevent excessive testing and reinforcement of patient fears
  – patient to avoid feelings of abandonment
• Consult psychiatrist for unstable/suicidal patients, refractory symptoms
• Hospitalize only for physical/psychiatric instability
Please fill out your evaluations!!!
SCENARIO A – PATIENT

Development of Initial MUS Management Plan

You have headaches, abdominal pain, and constipation alternating with diarrhea intermittently for 18 years. Increased fiber in diet does not help. You use an enema occasionally with some relief. The headaches are the hardest to deal with. They come on suddenly for no apparent reason and sometimes become so severe that you do not want to do anything. Your previous physician gave you Propoxyphene for pain. You have been depressed on and off for about 18 years. When depressed, you lose motivation, sleep a lot, and become impatient with your children when they want you to spend time with them. You did not ‘tolerate’ antidepressants. You are tired of physicians suggesting that all your symptoms are from depression. You have been to the emergency room 10 times in the last 6 months for headaches.

You feel like your spouse and children are ‘too much work.’ One son is having a lot of trouble at school. Your spouse is too irresponsible to help raise the children.

Your father, who was the most important person in your life died when you were 10 years old. After that, you shut off your feelings.

The doctor has reviewed your previous records, performed several tests, and referred you to some specialists for evaluation. You are here for a follow-up visit. You are anxious to learn of the results of the tests and to finally get some help.

SCENARIO A - PHYSICIAN

Development of Initial MUS Management Plan

After a thorough work-up, including a complete history and physical exam, review of old records, referrals and any other lab and radiological tests (e.g. MRI of the brain) you think are necessary, you decide there is no organic disease basis for the patient’s symptoms. You make a diagnosis of tension headaches, irritable bowel syndrome and co-morbid depression, i.e. your diagnosis is severe MUS.

The patient is here for a scheduled follow-up visit to discuss her results and to begin treatment. Use empathic, open-ended questioning to learn of new symptoms and to maintain and monitor the doctor-patient relationship (DPR). Use ECGN to develop the initial treatment plan with the patient.
### SCENARIO B – PATIENT

**Development of Initial MUS Management Plan**

You have had chronic back pain for about 12 years. It started with a sharp pain in your neck and low back when a lady hit your car, forcing you to hit a curb. You were diagnosed with whiplash shortly thereafter and had some physical therapy, but never really got better. Over the last 3 years the pain seems to be moving to different parts of your body and now you hurt everywhere. You’ve seen a chiropractor, a massage therapist and get pain shots periodically from a pain clinic. You also take Oxycodone everyday.

Your husband of 31-years was abusive, especially during the last year of your marriage and finally divorced you about 11 years ago. Your first husband also was abusive. You married him to get away from your mother who also abused you. You grew up in a large family but you were not close.

The doctor has reviewed your previous records, performed several tests, and referred you to some specialists for evaluation. You are here for a follow-up visit. You are anxious to learn of the results of the tests and to finally get some help.

### SCENARIO B - PHYSICIAN

**Development of Initial MUS Management Plan**

After a thorough work-up including a complete history and physical exam, review of old records, laboratory and radiological studies, referral to Rheumatologist and any other test you feel is required, you are convinced there is no organic disease basis for the patient’s symptoms and you make a diagnosis of fibromyalgia. You also think there might be connection between history of abuse and patient’s symptoms.

The patient is here for a scheduled follow-up visit to discuss her results and to begin treatment. Use empathic, open-ended questioning to learn of new symptoms and to maintain and monitor the doctor-patient relationship (DPR). Use ECGN to develop the initial treatment plan with the patient.
SCENARIO C – PATIENT

**Development of Initial MUS Management Plan**

You are here because of severe fatigue and insomnia. You have had intermittent, severe cramping and abdominal pain for 20 years. After many negative tests, you were told you had endometriosis and had hysterectomy, but pain has continued. Your last doctor prescribed an antidepressant, which helped a little, but you quit taking it because you don’t like taking medicines. Your have been told you have GERD, but the medication prescribed does not work. You believe you have food allergies because corn makes your ears plug up, soy makes you depressed and fruits give you yeast infections.

You are always 10 to 15 minutes late to work because it takes you too long to get ready in the morning. You just don’t feel good when you wake up. You stay up late most nights watching TV or reading because you don’t feel like sleeping. You don’t have very many close friends. You never have. Because of your father’s work you moved 13 times by the time you were 13, so you couldn’t make friends. After 10 years of marriage, you and your spouse are not very close.

The doctor has reviewed your previous records, performed several tests, and referred you to some specialists for evaluation. You are here for a follow-up visit. You are anxious to learn of the results of the tests and to finally get some help.

SCENARIO C - PHYSICIAN

**Development of Initial MUS Management Plan**

After a thorough work-up including a complete history and physical exam, review of old records, basic laboratory evaluation (including CBC, comprehensive panel, CXR, TSH) and referral for sleep study, you make a diagnosis of unexplained chronic fatigue, insomnia and co-morbid minor depression as patient does not meet criteria for major depression.

The patient is here for a scheduled follow-up visit to discuss her results and to begin treatment. Use empathic, open-ended questioning to learn of new symptoms and to maintain and monitor the doctor-patient relationship (DPR). Use ECGN to develop the initial treatment plan with the patient.
A. Diagnosis of MUS

1. Smith RC and Dwamena FC. Classification and Diagnosis of patients with Medically Unexplained Symptoms J Gen Intern Med, 2007 22(7);685-91

This paper discusses the MUS diagnostic scheme discussed in this workshop

Evidence supporting:

a. Recommendation for limited testing in patients with mild MUS

  This review of the charts of 1000 ambulatory care patients revealed an organic cause in only 16% of patients even though diagnostic tests were performed in 70% of them

  This prospective study of 500 ambulatory clinic patients showed that 70% of patients improved after two weeks and that this improvement was sustained after 3 months.

b. Recommendation for more definitive testing in patients with chronic symptoms:

- Neurological symptoms:
    Ten (11.8%) of 85 patients referred to a psychiatric hospital with a diagnosis of conversion disorder were found to have a neurological disorder after median follow-up period of 2.4 years.

    False positive rates for conversion disorder have been found to be as high as 15 % in this comparable study with 10 years of follow-up

    False positive rate low as 4.7 % in this 6-year follow-up study conducted at secondary and tertiary neurological centers

- Gynecological symptoms:
    Laparoscopic studies in 100 women with pelvic pain for at least 6 months revealed organic pathology including endometriosis, adhesions and others, in 83%.

- Gastroenterological symptoms

In this study of 602 new referrals to a gastroenterology clinic, the Rome criteria yielded a sensitivity of 85% and a specificity of 71% for diagnosing IBS.


In this other study that used both retrospective and prospective designs, adding the absence of red flags to the Rome criteria yielded a sensitivity of 63% and a specificity of 100% in the retrospective study, and a positive predictive value of 98% in the prospective study. However, the study used gastroenterologists' evaluation as the 'gold standard' and only 45% of patients 45 years or younger had their colon investigated.


In this prospective study of 97 referred patients that sought to determine the utility of six psychosocial factors for diagnosing IBS, Smith et al. found that the psychosocial factors did not distinguish between IBS and organic disease. Instead, psychosocial factors were related to high utilization in both IBS and organic disease. The authors concluded that psychosocial criteria were of limited value in differentiating irritable bowel syndrome from organic disease.

B. Treatment of MUS


This lead article was accompanied by an editorial highlighting its unique features of using the classification system discussed in this workshop to identify primary care patients with moderate to severe MUS; and of demonstrating that primary care clinicians can effectively treat these difficult patients.


The intervention in the RCT described above did not cost more than usual care. The authors concluded that coupled with the improved health benefits, this finding suggested that the intervention may have been cost-effective.


This article demonstrates cost-effectiveness of similar approach.

Other evidence supporting the treatment plan

1. Antidepressants


In this systematic review, 64 out of 94 trials (69%) demonstrated some benefit of antidepressants in patients with MUS. Patients receiving antidepressants were more than 3 times as likely to experience symptomatic improvement than patients receiving placebo. Meta-regression did not differentiate effect across different classes of antidepressants, however studies of tricyclic
antidepressants were more likely than studies of selective serotonin re-uptake inhibitors (SSRIs) or antiserotonin agents to have a beneficial outcome (p=0.02). Depression was assessed in only 49 (52%) of studies and association between depression and response to treatment was performed in only 24 studies (25% of all studies). Of the 24 studies, only 8 (33%) demonstrated a correlation between physical symptom response and depressive response. The study demonstrated significant publication bias.

In Smith et al’s RCT, 65 (68.4%) intervention patients, compared with 20 (19.8%) usual care controls increased use of antidepressants to full doses (p<0.001). Similarly among patients who were previously using controlled substances, 26 (70.3% of using intervention patients) compared with 6 (14.3% of using control patients) reduced usage (p < 0.001). Increase in use of full antidepressant (p = 0.001), but not reduction in use of controlled substances (p=0.26), was associated with improvement in the primary endpoint of the trial. Thirty-seven (80%) of patients who improved took full dose antidepressants, suggesting that full dose antidepressant use was a significant, but not the only contributor to improved patient outcome.

2. Cognitive Behavioral Therapy (Education, commitment, goals, negotiation - ECGN)

- Kroenke K, Swindle R. Cognitive-behavioral therapy for somatization and symptom syndromes: a critical review of controlled clinical trials. Psychother Psychosom. 2000;69(4):205-15. This systematic review of 31 controlled trials (29 randomized, 2 nonrandomized), revealed that specialty conducted CBT significantly improved physical symptoms in 20 (71%) of the 28 studies that assessed them, and showed a trend toward improvement in another 3 (11%). Similarly, CBT definitely (n=9, 47%) or possibly (n=5, 26%) improved functional status in 17 studies. In contrast only 38% and 8% of 26 studies showed definite or possible improvement respectively in psychological distress with CBT. Benefits obtained at the end of treatment persisted at follow-up (range: 1 month – 24 months) in 29 of 30 studies that studied durability of outcome.

The primary care intervention by Smith et al demonstrated that primary care providers could effect clinically significant changes in MUS patients using a treatment similar to the one used in the workshop. CBT was a prominent part of that intervention. Both antidepressants and non-antidepressant aspects of treatment contributed to patients’ improved outcomes. The number needed to treat was only 6.4.

3. Relaxation/meditation/exercise/physical therapy


This non-randomized controlled trial of a convenience sample of 16 patients showed that 15 minutes of relaxation response meditation twice a day for six weeks reduced symptoms recorded in symptom diary, especially pain and bloating, in patients with irritable bowel syndrome. The effects of the program persisted after 1 year of follow-up.


This prospective, randomized trial of 58 patients revealed that swimming pool exercises matched to patient’s threshold of fatigue and pain significantly improved Fibromyalgia Impact Questionnaire score and 6-minute walk test compared with usual care controls. Follow-up was after 6 months.
In addition to better improvement in the primary end-point, the RCT trial by Smith et al. demonstrated significant improvement in disability scores of intervention patients (p = 0.001), but not in the scores of control patients.

  *This population-based randomized controlled trial showed that occupational therapy, including ergonomic redesign of strenuous job tasks facilitated return to work and reduced progression towards chronicity of low back pain.*

  *This randomized trial demonstrated some, albeit marginal, benefits of the McKenzie method of physical therapy and chiropractic manipulation on outcomes compared to an educational booklet.*

4. Telephone calls

  *This single site randomized controlled trial of 497 primary care male patient showed that substituting telephone call care for selected visits significantly reduced number of scheduled and unscheduled clinic visits (19%, p<0.001), medication use (14%, p=0.006) hospital days (28%, p = 0.005) and intensive care unit days (41%, p=0.03) after 2 years. Telephone care also improved function and possibly mortality (p=0.06) in patients with the poorest overall health at baseline.*

C. Other Resources

1. Self Awareness

  *This paper discusses common physician attitudes, emotional responses, and present examples of organized activities that can promote personal awareness.*

- Smith RC, Dwamena FC, Fortin A. Teaching Personal Awareness. *J Gen Intern Med* 2005 20(2) 201-207
  *This paper discusses a systematic method of teaching students and residents to develop self-awareness and discusses qualitative evaluation of the method.*

2. Core Skill 1: Evidence-based medical interviewing

  *In this randomized, controlled study, residents using the patient-centered interviewing model showed greater skill and confidence in interviewing all types of patients.*

This book presents the patient-centered interviewing model (which is used to build and maintain effective relationships with patients with MUS) in a step-by-step fashion, with an ongoing vignette that gives suggestions of words to say. It also discusses how to circumvent common physician and patient barriers.

- Smith, RC. Videotapes: (1) Patient-Centered interviewing and (2) Doctor-Centered Interviewing. Marketing Division, Instructional Media Center, Michigan State University. Contact information: P.O. Box 710, East Lansing, MI 48824; 517-353-9229 (tel); 517-432-2650 (fax); http://www.msu-vmall.msu.edu/imc


This chapter presents how certain personality types, usually within the range of normal, can affect the DPR.
Faculty contact information:

- Francesca C. Dwamena, MD, MS  
  B331 Clinical Center  
  138 Service Road  
  East Lansing, MI 48823  
  Phone: 517-432-5191  
  Fax: 517-432-1326  
  e-mail: Francesca.Dwamena@ht.msu.edu

- Robert C. Smith, MD, ScM  
  B306 Clinical Center  
  138 Service Road  
  East Lansing, MI 48823  
  Phone: 517-355-6516  
  Fax: 517-432-1326  
  e-mail: Robert.Smith@ht.msu.edu

- Auguste H Fortin VI, MD, MPH  
  Waterbury Hospital  
  64 Robbins St.  
  Waterbury, CN 06721  
  Phone 203-573-6501  
  Fax 203-573-6707  
  e-mail: auguste.fortin@yale.edu