Patient Participation in Hand Hygiene Promotion and Improvement: Pros and Cons

Dr. Maryanne McGuckin & Dr. Yves Longtin

Sponsored by the WHO Patient Safety Agency

Patient Participation in Hand Hygiene Promotion and Improvement: Pros and Cons

Maryanne McGuckin, Dr. ScEd, FSHEA
McGuckin Methods International, Inc., USA
A Patient Safety Organization
&
Yves Longtin, MD, FRCP, Associate Professor
Université Laval Faculté de médecine, Québec, Canada

Terminology - Empowerment

Patient Empowerment

Patient Participation ➔ Patient Involvement

Healthcare Worker

Explicit Permission to patient
for asking about hand hygiene

Presentation Overview

1. What is Empowerment?
2. Hand Hygiene and Empowerment
   a. 1982
   b. 1997-2007
   c. 2007-2013
3. Pros: Evidence and Implementation
4. Cons: Barriers (HCWs and Patients)
5. Implementation Tips and Checklist

Patient Empowerment Defined

"A process in which patients understand their role, are given the knowledge and skills by their health-care provider to perform a task in an environment that recognizes community and cultural differences and encourages patient participation."


The Journey of Empowerment…
A Possibility? 1982

"Patients should be sure that any Physician, Nurse, Therapist, has washed his/her hands before touching them."

McGuckin, M.
Medical World News, 2-15-82

Abbreviations

<table>
<thead>
<tr>
<th>HH</th>
<th>Hand hygiene</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW</td>
<td>Healthcare worker</td>
</tr>
<tr>
<td>PE</td>
<td>Patient empowerment</td>
</tr>
<tr>
<td>PP</td>
<td>Patient participation</td>
</tr>
<tr>
<td>US, UK, others</td>
<td>United States, United Kingdom, and various country abbreviations may be used</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>Others</td>
<td>Defined on specific slides</td>
</tr>
</tbody>
</table>

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
The Partners In Your Care (PIYC) Empowerment Model 1997

- Patient empowerment and measurement model for increasing hand hygiene by having patients ask their healthcare workers: “Did you wash/sanitize your hands?”


PIYC Empowerment Model Components

- Acute / Long Term / Rehabilitation
  - Education Brochure
  - Visual Incentive
- Outcomes Measured:
  - Hand Hygiene Compliance (HH/bd)
  - Patient Survey
- Feedback to Staff

PIYC Empowerment Model Brochures

- Patients are given education brochure either at pre-admission testing or within 24 hours of admission. Brochure discusses patient’s role in partnering in their care.
- Keep it simple!

PIYC Empowerment Model Visual Incentives

Testing and Implementation

After several years of development and evaluation, a program began...

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Source</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Norway</td>
<td>5 hospitals</td>
<td>+40% HH/bd</td>
</tr>
<tr>
<td>2000</td>
<td>Denmark</td>
<td>5 hospitals</td>
<td>+35% HH/bd</td>
</tr>
<tr>
<td>2001</td>
<td>Netherlands</td>
<td>2 hospitals</td>
<td>+50% HH/bd</td>
</tr>
<tr>
<td>2002</td>
<td>Germany</td>
<td>20 hospitals</td>
<td>+40% HH/bd</td>
</tr>
<tr>
<td>2002-2</td>
<td>Switzerland</td>
<td>2 hospitals</td>
<td>+45% HH/bd</td>
</tr>
<tr>
<td>2005</td>
<td>Long Term Care</td>
<td>McGuckin, et. al. Validation of a Comprehensive Infection Control Program in LTC The Decree 2004</td>
<td>+52% HH/bd</td>
</tr>
</tbody>
</table>

HH/bd = Hand Hygiene occurrences per patient bed day. Not just product consumption, but a Model for monitoring the effect of the patient variable, used in all studies.
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Testing and Implementation
... and grew!

Empowerment Model

Implementation

• 6 phases

1. Define your facility
2. Meet with leaders
3. Identify helpers
4. Locate resources
5. Determine distribution
6. Maximize impact

Many resources and ideas are available from national/regional health authorities, patient empowerment, advocacy websites
Tips and ideas later in this presentation

Empowerment Design, Testing, Implementation Timeline

U.S. Acute Care

Norway, Denmark, Netherlands, Belgium

U.S.-Canada Measurement Program Begins

Consumer Website in U.S. & Canada

Hungary Acute Care

JC Patient Involvement in Hospitals

WHO HH + HH, A Win-Win

Wong-Staal

WHO S-May: Patient Participation


Testing and Implementation

Willingness: Patients Want Empowerment!

1999: Play for IC information? Yes/No

1999-2005: Ask about HH: Yes/No

2005: Involved in HH: Yes/No

2006: Ask if given permission: Yes/No

• These show intention, not action.
• Missing link: HCW explicit permission to ask

Giving Explicit Permission to Ask: A HCW's Role in Empowerment

• Reassure that patient reminders to HCWs for HH are positive interactions
• Invite patients to remind about HH, giving specific, direct (explicit) permission either verbally or written instruction
• Assure patient that reminding is a "normal activity" for patients in your unit

Evidence for HCW Explicit Permission to Patient for HH

<table>
<thead>
<tr>
<th>Study origin</th>
<th>HCW's role in HH</th>
<th>Patient belief he/she should be involved</th>
<th>Patient would ask about hand hygiene</th>
<th>HCW's role in HH</th>
<th>Would ask if HCW permission to patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>England and Wales NPSA (2005)</td>
<td>77%</td>
<td>72%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>Ontario (Canada)</td>
<td>22%</td>
<td>42%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>USA consumer survey</td>
<td>63%</td>
<td>60%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>USA web survey</td>
<td>61%</td>
<td>60%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>World Health Organization survey</td>
<td>N/M</td>
<td>52%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>UK</td>
<td>79%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>USA</td>
<td>91%</td>
<td>45%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>UK</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>Switzerland</td>
<td>N/M</td>
<td>32%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
<tr>
<td>Australia</td>
<td>90%</td>
<td>45%</td>
<td>N/M</td>
<td>N/M</td>
<td>N/M</td>
</tr>
</tbody>
</table>

References at end of this section

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

This Concludes the Pros of Patient Participation

Dr. Longtin will now present the Cons of Patient Participation and I will then present some tips for implementing a patient empowerment model into your hand hygiene programs.

Patient participation & empowerment in infection control

No, we cannot say “it works” yet!

Yves Longtin, MD
Associate professor
Laval University Infectious Diseases Research Center and Faculty of Medicine,
Quebec, Canada

www.webbertraining.com

Disclosure

- I disclose that:
  - I personally endorse PP to improve HH
  - I was given the tough role of devil’s advocate

Introduction

Patient Participation to Prevent Medical Errors

- Recent initiatives
  - PP to diminish catheter-related infections
  - PP to prevent wrong-site surgery
  - PP to prevent medication errors
  - PP to detect and report surgical-site infections

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Patient Participation to Prevent Medical Errors
- Recent initiatives
- Variable degrees of success
- Main limitation:
- Lack of medical knowledge to detect errors

Patient Participation and Hand Hygiene

USA

Patient Participation & Hand Hygiene

Speak Up
Avoiding contagious diseases like flu, MRSA, and MRSE is important to everyone. Here are 4 tips on how you can do your part to fight the spread of infections:

1. Wash hands frequently with soap and water for at least 20 seconds
2. Cover your nose and mouth with a disposable tissue when you cough or sneeze
3. Avoid close contact with people who are sick
4. Clean and disinfect surfaces regularly

However, many questions remain unanswered regarding:
- Efficacy
- Patient acceptance
- HCW perception
- Impact on patient-HCW relationship

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Efficacy

Are patient participation programs associated with improvements in hand hygiene compliance?
What is the evidence?

Efficacy

- Few studies have assessed the efficacy of PP programs to improve hand hygiene compliance
  - Discrepant results
  WE NEED MORE!
MORE!

Efficacy

- The few studies published suggest that soap consumption may increase
- However:
  - No data regarding actual hand hygiene compliance!
  - Data from an era of low hand hygiene compliance
  - Can these results be extended to settings using a multi-modal strategy who achieved “relatively high” compliance?
  - Need contemporary data!

Efficacy of PP programs

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>100%</td>
<td>95%</td>
<td>3-45%</td>
</tr>
<tr>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32%</td>
<td>25%</td>
<td>31%</td>
<td>0%</td>
</tr>
<tr>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Soap Consumption


WHY are there so few studies on this topic?

Lack of interest from scientists?
Publication bias?

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Patients

WHAT exactly are we asking patients to do?
The “awkward” factor

Patients are reluctant to ask challenging questions

Patients’ scores on each of the questions in the “Patient Willingness to Ask Safety Questions Survey” and patients’ scores on each of the Patient Willingness Levels (PWL) (scores ranging from 1 to 4)

<table>
<thead>
<tr>
<th>Would you ask a doctor…</th>
<th>Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long will I be in hospital for?</td>
<td>3.75 (3.64 to 3.84)</td>
</tr>
<tr>
<td>What are the alternatives to surgery?</td>
<td>3.31 (3.13 to 3.48)</td>
</tr>
<tr>
<td>Why are you removing that piece of monitoring equipment?</td>
<td>2.89 (2.57 to 3.05)</td>
</tr>
<tr>
<td>I don’t think that is the medication I am on, can you check please?</td>
<td>2.79 (2.46 to 2.92)</td>
</tr>
<tr>
<td>How many times have you done this operation?</td>
<td>2.23 (2.04 to 2.42)</td>
</tr>
<tr>
<td>Have you washed your hands?</td>
<td>2.03 (1.84 to 2.23)</td>
</tr>
</tbody>
</table>

Among 16 safety-related questions, the one asking about hand hygiene had the lowest level of patient support


Hand Hygiene Saves Lives: Patient Admission Video

Opportunity to ask a question

- Dynamics of patient encounter leaves little room to ask without interrupting
  - On average, doctors interrupt patient monologues after 21 seconds

http://www.cdc.gov/handhygiene/resources/teachPatient.html

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGucken & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

NPSA feasibility study, U.K.
Healthcare worker survey
- Would you ask a caregiver about hand hygiene?
  - 37% (94/254) would ask a nurse
  - 29% (74/254) would as a doctor

Patient acceptance
Do patients ask?

Self-reported patient intervention

<table>
<thead>
<tr>
<th>South Jersey</th>
<th>Oxford</th>
<th>Pennsylvania</th>
<th>Ohio</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA 1991</td>
<td>90%</td>
<td>100%</td>
<td>95%</td>
<td>33-45%</td>
</tr>
<tr>
<td>U.K. 2006</td>
<td>62%</td>
<td>25%</td>
<td>91%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Soap Consumption
- A (40 g)

Difference in willingness to ask
Highly suggestive of some degree of uneasiness

Patient acceptance
How do patients feel about asking?

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

University of Geneva Hospitals Survey
- Results
  - 80% had heard about healthcare-associated infections
  - 39% identified hand hygiene as the most important preventive measure
  - 66% believed HCWs should perform HH prior to shaking hands with a patient

University of Geneva Hospitals Survey
- Results
  - 80% had heard about healthcare-associated infections
  - 66% believed HCWs should perform HH prior to shaking hands with a patient

University of Geneva Hospitals Survey
- Reasons for not intending to ask nurses whether they performed hand hygiene
  1. Belief that caregivers know or should know
     - 35 (29.4%)
  2. Belief that this task is not part of the patient’s role
     - 32 (23.2%)
  3. Feeling of embarrassment or awkwardness
     - 19 (13.8%)
  4. Fear of rebuffs
     - 16 (11.6%)
  5. Perception of being impolite or disrespectful
     - 14 (10.1%)

University of Geneva Hospitals Survey
- Reasons for not intending to ask nurses whether they performed hand hygiene
  1. Belief that caregivers know or should know
     - 35 (29.4%)
  2. Belief that this task is not part of the patient’s role
     - 32 (23.2%)
  3. Feeling of embarrassment or awkwardness
     - 19 (13.8%)
  4. Fear of rebuffs
     - 16 (11.6%)
  5. Perception of being impolite or disrespectful
     - 14 (10.1%)

Unanswered questions
- Can it generate anxiety in patients who witness hand hygiene omission?
- Does it transfer part of the responsibility to the patient?

Healthcare workers

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Healthcare workers
- Support from HCWs is central to the success of patient participation endeavors
- Failure to enlist their open support may undermine the outcome of such programs

University of Geneva Survey
- Objectives:
  - Assess HCWs’ views of a Patient Participation Program
    - Including some taboo questions
  - 700 surveys sent + up to 2 reminders
    - Response rate, 41% (277 respondents)

If a patient notices that I forgot to perform HH, I would appreciate that he/she reminds me.

Would You Accept to Wear a Badge Inviting Patients to Ask about Hand Hygiene?

Impact of Explicit Invitation

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Digging deeper into HCWs’ feelings and beliefs…

Patients’ Inquiry about Hand Hygiene Would Be Upsetting

It would be humiliating for me to be reminded by a patient to cleanse my hands

I would be ashamed to admit that I forgot to cleanse my hands

I Would Feel Guilty if a Patient Discovered That I Forgot to Perform Hand Hygiene

Patients may become angry if they detect that I forgot to perform Hand Hygiene

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

U.K. Survey of Healthcare Workers

25% (64/254) feared that it would create tension between HCW's and patients

Do You Think a PP Program Would Improve Staff HH Compliance?

So, HCWs don't like the idea of being asked...

Yet...

- They think it would help improve their HH behavior...
- Surprising?

Patient Participation Programs Could Improve HH Compliance through Different Mechanisms...

Even though this hypothesis has never been verified so far...

Mechanisms of Action of Patient Participation

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

- The efficacy of a patient participation strategy cannot be assessed solely by measuring the proportion of patients who ask about hand hygiene!

- The ultimate goal:
  - Increase hand hygiene compliance
  - NOT achieve high rates of patient intervention!

Even though this hypothesis has never been verified so far...

A Silent Minority

- A single patient enquiry can induce long-lasting change in HCW behavior

  - 81% of HCWs reminded to perform hand hygiene by a patient were more careful about it during subsequent patient care activities

Indirect evidence of the silent power of patients

Conclusion

- Patient Participation is a promising avenue to improve staff hand hygiene compliance
- However...
- Many patients and HCWs are not comfortable with such program
  - No solution has been found to overcome this obstacle
- Many questions remain unanswered
  - No study have assessed the efficacy of PP programs to improve HH compliance
  - The impact of “silent empowerment” and normative pressure have not been evaluated

Hosted by Claire Kilpatrick, World Health Organisation
A Webber Training Teleclass
www.webbertraining.com
Patient Participation in Hand Hygiene Promotion and Improvement – Pros and Cons
Dr. Maryanne McGuckin & Dr. Yves Longtin
Sponsored by the WHO Patient Safety Agency

Conclusion
- For all these reasons, I believe that:

“We cannot say PP programs work… Yet!”

Empowerment Model: Tips for Implementation
- 6 phases
  1. Gather your facts
  2. Meet with leaders
  3. Identify helpers
  4. Locate resources
  5. Determine distribution
  6. Maximize impact

Information Sources
- Use review articles and guidelines that have already summarized the research!
  1. (2009) WHO Guideline for Hand Hygiene in Health Care
    - M. McGuckin, J. Govednik. Journal of Hospital Infection 2013; Accepted for Publication

Everybody Has a Role
- Meet with Key Decision Makers
- Choose 2 pilot test units (not ICUs)
- Meet with Nurse Managers
- Discuss their concerns and address them through examples of successful programs
- Include a member of your consumer patient advisory committee or member of your community on your introduction and planning team.

Advocates for PE
- For the pilot unit team, organize 1-3 sessions for all HCWs in order to introduce PE.
- We recommend a Positive Deviance approach:
  - Through discussion and activities, identify those HCWs who understand and easily accept PE.
  - Those will be your “champions” to further promote and role model PE to other HCWs.
  - Ongoing free webinars to explain the process:

You Have Options!
- Many government and health websites offer posters, brochures, and videos for your use on encouraging patients to ask (often no cost).
- Order brochures or make your own and decide on which visual reminders to use.
  - Remember input and feedback from your consumer!
- Research shows patients prefer printed materials and their own visual reminder.
  - Consider a small personal sanitizer bottle!
Explicit Permission

- Identify/design steps that HCWs will use to educate, give permission, and teach skills to patients on how to ask about HH. Practice with patients if necessary!
- Consider Emergent / Non-emergent patients
- Suggestions: Nurse at assessment, Licensed Practical Nurse (LPN), volunteers, students, admission staff, patient advocates, Intranet or hospital-patient video network

Patients Can and Want to Make a Difference!

- Ensure you have a multimodal hand hygiene program (WHO Guideline 2009)
- Establish a HH measurement process
- Develop a simple (5 questions) patient survey given by discharge nurse. Ask about:
  - HCW HH activity
  - Was patient invited to ask HCWs to perform HH?
  - Did patients ask about HH? How often?
- Evaluate Results

Implementation Checklist

- Establish a multimodal hand hygiene compliance program
- Review patient empowerment research
- Meet with key decision makers, including consumers
- Meet with Nurse Managers
- Develop theme and supporting materials: brochures, visuals
- Identify “champions” using Positive Deviance approach
- Provide HCW empowerment skills/technique
- Implement your measurement program for HH
- Evaluate successes, identify and improve areas causing barriers
- Expand program from pilot units to other units in hospital, using “champions” to help train and role model to others
- Celebrate!

Thank You

I would like to thank Mr. John Govednik, MS our Education Director for his assistance in the implementation tips and checklist.

Contacts:
Dr. McGuckin
mcguckin@patientsurvivalguide.net
mcguckin@hhreports.com

Dr. Longtin
yves.longtin@crchuq.ulaval.ca