Patient Perceptions and Misperceptions About Vaginal Yeast Infections

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- Women’s Health Nurse Practitioner at Newton-Wellesley OBGYN
- Visiting scholar at Boston College Graduate School of Nursing
- Extensively published, including co-authored textbook *Advanced Health Assessment of Women; Skills and Procedures*, which received a 2016 AJN Book of the Year award
- Years of media experience include time as an award-winning national radio host of the NP program, *Partners in Practice* on ReachMD
- Awards & honors include Inspiration in Women’s Health 2011 (NPWH); Lifetime Achievement Award from the Massachusetts Coalition of Nurse Practitioners
Laura Artigas, MBA  
**Brand Director, Women's Health, Prestige Brands, Inc.**

- Responsible for the Women's Health and Digestive Health products at Prestige Brands: MONISTAT®, Uristat®, e.p.t.™, Vitron C®, Dramamine®, and Beano®
- Active in educating women about women's health and wellness
- Expertise in patient and consumer insights in vaginal health and family planning, diabetes management, heartburn and acid reflux
- Attended Washington University in St. Louis and Harvard Business School
What you will learn

• What patients think and feel about yeast infections
• Misinformation about yeast infections
• Special characteristics of the Hispanic population’s attitudes toward yeast infections and general health
• How to attend and respond to all of your patients’ misperceptions
Vulvovaginal candidiasis (VVC)

Incidence, classification

- Approximately 75% of women have at least one episode of VVC in their lifetime
- Approximately 40–45% of women have two or more episodes of VVC in their lifetime
- VVC is classified as either uncomplicated or complicated
  - Approximately 10–20% of women have complicated VVC, which requires special diagnostic and therapeutic considerations
  - In the US, the estimated cost of VVC diagnosis and treatment is $3 billion

Source: Mintz 2013, CDC Guidelines 2015, Data on file
Overall demographics and incidence of yeast infection is primarily in women 18-34 years old. Most VVC sufferers experience their first infection before the age of 25 years old, while 75% of women have at least 1 episode in their lifetime. VVC infection is highly treatable but a small yet growing number of women have recurrent or resistant Candida infections, which are more difficult to manage.
What Women Think and Feel About Yeast Infections
Online survey with 1,000 women ages 16-24 (geographically & racially diverse)

38% had a previous yeast infection

80% were students
Women have **strong negative emotions** about experiencing a yeast infection

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncomfortable in general</td>
<td>59%</td>
</tr>
<tr>
<td>Dirty, unclean, like there is something wrong with my hygiene</td>
<td>56%</td>
</tr>
<tr>
<td>Self-conscious, reserved, tentative</td>
<td>42%</td>
</tr>
<tr>
<td>Embarrassed, ashamed, like I did something wrong</td>
<td>37%</td>
</tr>
<tr>
<td>Wanted to stay at home, not go out and do things</td>
<td>35%</td>
</tr>
<tr>
<td>Afraid that this was a sign of something more serious happening with me</td>
<td>35%</td>
</tr>
</tbody>
</table>

*Question:* How did having a yeast infection make you feel socially, emotionally, and/or physically?

*Monistat Survey n=380 (subset of 1,000 women) ages 16-24 with previous VVC; Data on file*
## Women believe that others are judging them

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afraid others will think something is really wrong with me</td>
<td>46%</td>
</tr>
<tr>
<td>Afraid that others will think that I got it from someone else, or will give it to someone else</td>
<td>46%</td>
</tr>
<tr>
<td>Afraid others will think I’m sexually promiscuous</td>
<td>46%</td>
</tr>
<tr>
<td>I’m worried that not being clean enough is what is causing me to get yeast infections</td>
<td>49%</td>
</tr>
<tr>
<td>I feel embarrassed; I’d rather deal with it myself than talk to someone else about what to do</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Question:** Which statements about yeast infections do you agree with?
**Women changed their daily routines and behaviors**

- **Changed my wardrobe, wore different clothes than usual to be comfortable**: 24%
- **Didn’t want to be with other people**: 22%
- **Depressed, sad, down in the dumps**: 19%
- **Stupid, because smart people like me should know how to avoid these things**: 15%
- **Frantic, confused, tried to find out if others had this condition and what they did about it**: 14%
- **Skipped class, called in sick, cancelled appointments and activities**: 9%

**Question**: How did having a yeast infection make you feel socially, emotionally and/or physically?

*Monistat Survey n=380 subset of women with previous VVC; Data on file*
### Women are confused about VVC symptoms

<table>
<thead>
<tr>
<th>Symptom Description</th>
<th>Yes Have had VVC</th>
<th>No Have not had VVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A missed period</td>
<td>35%</td>
<td>55%</td>
</tr>
<tr>
<td>Open sores that won't heal</td>
<td>33%</td>
<td>58%</td>
</tr>
<tr>
<td>Chills &amp; fever</td>
<td>39%</td>
<td>55%</td>
</tr>
<tr>
<td>Lower abdominal, back, or shoulder pain</td>
<td>44%</td>
<td>62%</td>
</tr>
<tr>
<td>Bleeding (when not your period)</td>
<td>39%</td>
<td>67%</td>
</tr>
<tr>
<td>Urgency to use the bathroom but very little comes out</td>
<td>64%</td>
<td>78%</td>
</tr>
<tr>
<td>Foul-smelling vaginal discharge</td>
<td>91%</td>
<td>94%</td>
</tr>
</tbody>
</table>

#### Question: Which statements are symptoms of yeast infections?
And, they **believe misinformation about the cause of yeast infections**

<table>
<thead>
<tr>
<th>Myth</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>As long as you don’t have vaginal intercourse, you’re not going to get a yeast infection</td>
<td>30%</td>
</tr>
<tr>
<td>You can treat symptoms of a yeast infection to help you feel better, but a <strong>yeast infection simply can’t be cured</strong></td>
<td>42%</td>
</tr>
<tr>
<td>The <strong>heat from a laptop</strong> can cause a yeast infection</td>
<td>51%</td>
</tr>
<tr>
<td>A yeast infection is <strong>highly contagious</strong></td>
<td>52%</td>
</tr>
<tr>
<td>You can get a yeast infection from having <strong>too much sex</strong></td>
<td>66%</td>
</tr>
<tr>
<td><strong>Unprotected sex</strong> causes yeast infections</td>
<td>75%</td>
</tr>
</tbody>
</table>

**Question:** Which of the following statements about yeast infections are true?
But, some women **know the truth** about the cause of yeast infections

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important to get out of wet, sweaty clothes right away</td>
<td>72%</td>
</tr>
<tr>
<td>You should seek treatment for a yeast infection; it can get worse and cause bigger problems if untreated</td>
<td>68%</td>
</tr>
<tr>
<td>There are 2 ways to cure a yeast infection—vaginally and orally</td>
<td>65%</td>
</tr>
<tr>
<td>Changes in hormones or estrogen levels can contribute to getting a yeast infection</td>
<td>53%</td>
</tr>
<tr>
<td>Not all OTC treatments for vaginal health cure yeast infections; most only relieve symptoms</td>
<td>49%</td>
</tr>
<tr>
<td>If you have a weakened immune system from a treatment or disease, yeast infections are common side effects</td>
<td>37%</td>
</tr>
<tr>
<td>Taking antibiotics can cause a yeast infection</td>
<td>36%</td>
</tr>
<tr>
<td>If you’re pregnant, this may cause yeast infections</td>
<td>33%</td>
</tr>
<tr>
<td>Birth control pills can increase the likelihood of a yeast infection</td>
<td>23%</td>
</tr>
<tr>
<td>Diabetes may trigger a yeast infection</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Question:** Which of the following statements about yeast infections are true?
Many women are confused about the diagnosis and treatment of vaginal yeast infections

Best option is to leave it alone and let it go away by itself 16%

Sometimes I can’t tell if I have a yeast infection or something else like a bacterial or urinary tract infection, or an STD. It’s confusing. 47%

When I get a yeast infection, I ask my mom or close friends what to do to treat it 52%

Because I’m unsure about what to do, I generally make an appointment with my provider 62%

？」Question: Which statements about diagnosis and treatment of yeast infections do you agree with?
Women turn to HCPs, the internet, and family for information about yeast infections

<table>
<thead>
<tr>
<th>Source</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynecologist</td>
<td>26%</td>
</tr>
<tr>
<td>Google</td>
<td>18%</td>
</tr>
<tr>
<td>Primary care provider</td>
<td>15%</td>
</tr>
<tr>
<td>Mother/older women in family</td>
<td>11%</td>
</tr>
<tr>
<td>Medical website like WebMD</td>
<td>9%</td>
</tr>
<tr>
<td>Urgent care, community health</td>
<td>4%</td>
</tr>
<tr>
<td>Website about women and women’s issues</td>
<td>3%</td>
</tr>
<tr>
<td>Nurse practitioner</td>
<td>2%</td>
</tr>
<tr>
<td>Websites of feminine hygiene companies</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Question:** If you have VVC symptoms and are not sure if it's a vaginal yeast infection or something else, which of the following ways would you most likely use to determine what you’re suffering from and how to treat it?
Only **34%** of women know that there are non-prescription options to treat yeast infections.

And, **66%** could not name an OTC medication that can CURE a vaginal yeast infection and relieve the symptoms.

**True or false:** The only way to cure a yeast infection is with a prescription medication. All over-the-counter medications may relieve symptoms, but cannot cure the infection.

**Question:** Can you name an over-the-counter (non-prescription) medication that can CURE a vaginal yeast infection and relieve the symptoms?
Women believe that **home remedies are the top treatment choice to successfully and safely CURE a yeast infection**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yes Have had VVC</th>
<th>No Have not had VVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home remedies*</td>
<td>69%</td>
<td>42%</td>
</tr>
<tr>
<td>MONISTAT®</td>
<td>11%</td>
<td>39%</td>
</tr>
<tr>
<td>Vagisil®</td>
<td>19%</td>
<td>32%</td>
</tr>
<tr>
<td>Probiotics</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>Summer’s Eve®/douching</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>DIFLUCAN® (fluconazole)</td>
<td>17%</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know/unsure</td>
<td>16%</td>
<td>54%</td>
</tr>
</tbody>
</table>

*Home remedies include: yogurt, cranberry juice, hot baths, apple-cider vinegar, tea tree oil, garlic, coconut oil

**Question:** Which of these types of treatments will successfully and safely CURE your yeast infection?
Women understand that vaginal treatment provides faster relief of vaginal yeast infection symptoms than oral treatment.

**Question:** Which brings faster relief of vaginal yeast infection symptoms: vaginal treatment or oral treatment?

- 37% Vaginal Treatment is Faster
- 21% Oral is Faster
- 10% Both are Equally Fast
- 32% Don’t know/unsure?
And, women have their own ideas about how to **lessen the risk** of getting a yeast infection!

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wearing underwear, not going “commando”</td>
<td>32%</td>
</tr>
<tr>
<td>Having sex with only 1 partner (vs multiple)</td>
<td>31%</td>
</tr>
<tr>
<td>Using a condom when having sex</td>
<td>29%</td>
</tr>
<tr>
<td>Never using a public restrooms/toilet seats</td>
<td>13%</td>
</tr>
<tr>
<td>Avoiding sex completely</td>
<td>8%</td>
</tr>
</tbody>
</table>

Question: Which are ways to lessen the risk of getting a yeast infection?
Getting Into the Hearts and Minds of Hispanic Patients
Attitudes towards healthcare

Seeing a doctor is not part of the vernacular

Hispanic Millennials agree that seeing a doctor regularly is important, but won’t go unless it is an emergency.

"Seeing a doctor regularly is important to me."

Results of Top Box: Strongly Agree/Somewhat Agree

57% Hispanic Millennials
67% Non-Hispanic Millennials

"I don’t need to get check-ups or see a doctor unless it’s absolutely necessary."

Results of Top Box: Strongly Agree/Somewhat Agree

58% Hispanic Millennials
29% Non-Hispanic Millennials
Attitudes towards healthcare

• Hispanics were the least likely racial or ethnic group to see a medical provider as **42% never visited one during the year.**

• Latinos who did not seek medical care
  — **50%** high school educated
  — **33%** American born
  — **45%** insured

“We don’t go to the doctor until we’re very, very sick,”
says Dr. Jane Delgado, President and CEO of the National Health Alliance for Hispanics, adding, “By then, our healthcare clinician is limited in what they can do because the condition is too difficult to pinpoint.”
Alternative medicine plays a significant role

Alternative Therapies

45% of Latinos rely on home remedies
2013 Colorado Survey

72% of Hispanics never use prescription drugs
2012 Census Bureau

Preference for home remedies over medicine

Foreign-born Hispanic Millennials are more likely to prefer home remedies over medicine compared to US-born Hispanic Millennials.

50% 64%
US-born Hispanic Millennials Foreign-born Hispanic Millennials

“\textit{I prefer using natural/home remedies than medicine.}”
(Top Two Boxes)
What do Hispanic women think and feel about yeast infections and treatment?

For Hispanic women, there is almost a sense of “panic” when choosing a treatment.
She feels alone but she is not alone

She is surrounded by a multi-generational family that she won’t talk to because she is afraid or embarrassed

A common problem
Of Hispanic women: 38% get VVC > twice a year, 31% get VVC once a year, ~32% get VVC < once a year

VVC is a problem that Hispanic women first experience younger than the general female population
~50% of Hispanics were between 19 and 25 years old, 20% of Hispanics were 18 or younger, 26% of the general population were between 18 and 24 years old

The unpleasant emotions across all women are the same

1 Project Emerge, Women’s Health Hispanic A&U, February 2015
2 Data on file
3 Monistat Survey n=380 subset of women with previous VVC
The younger group of sufferers are confused and embarrassed: our educational role is to create clarity and reduce fear

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>45% felt scared at their last VYI, 2x more than most women</td>
</tr>
<tr>
<td>36%</td>
<td>They are more likely than others to wait longer before taking action at their first VYI</td>
</tr>
<tr>
<td></td>
<td>36% waited more than 4 days before seeking advice/treatment</td>
</tr>
<tr>
<td>17%</td>
<td>They are more likely to have talked to a friend at their first VYI (17%)</td>
</tr>
<tr>
<td>50%</td>
<td>At the first VYI, half thought they were suffering from an STD</td>
</tr>
<tr>
<td></td>
<td>(compared to 22% of the general population of women)</td>
</tr>
</tbody>
</table>

Project Emerge, Women’s Health Hispanic A&U, February 2015
Monistat Survey n=380 subset of women with previous VVC; Data on file
Hispanic patients view MONISTAT® and Vagisil® as the top options to treat VVC

MONISTAT® and Vagisil® are the top brands in terms of awareness, usage, and familiarity, while DIFLUCAN® (fluconazole), VAGISTAT® and Lagicam® are less recognizable and less used.

$ Patients don’t understand that Vagisil® is NOT a vaginal anti-fungal, so price is driving the differentiation.

Patient view:
• Highest price for MONISTAT®
• Lowest price for Vagisil®
A patient calls the office and reports that she tried an over-the-counter treatment for her yeast infection and it didn’t work. What would you do first?

A. Give her an appointment to come in for an exam
B. Suggest that she purchase another course of therapy because it’s probably a *non-albicans* species and they take longer to cure
C. Ask what product she used and when she used it
D. Call in a prescription
A patient calls the office and reports that she tried an over-the-counter treatment for her yeast infection and it didn’t work. What would you do first?

A. Give her an appointment to come in for an exam

B. Suggest that she purchase another course of therapy because it’s probably a non-albicans species and they take longer to cure

C. Ask what product she used and when she used it

D. Call in a prescription
Converting the Misinformed to Miss Informed
Counsel women to address their emotional needs

Important emotional needs

95% Feeling you are taking positive actions for your health
85% Feeling proactive
95% Having control over the situation
Counsel with culturally appropriate information

Emotional needs can be fulfilled\textsuperscript{1,2}

- **First time sufferers need reassurance about their symptoms** and the different conditions they may have
  - If you don’t have time to see her, recommend an OTC pH test like the Vaginal Health Test by MONISTAT\textsuperscript{®} Complete Care™

- **Assure women that they are not “dirty”** and don’t need to change their daily routines

- **Explain that VVC is a normal condition** experienced by 3 out of 4 women in their lifetime, and that they should not be self-conscious or ashamed

- **Educate young women about what causes VVC** and normalize a topic that is scary and embarrassing

All women want to know the best way to get rid of their infection!
Proactively make a product recommendation to ensure that she purchases a VVC treatment

\textsuperscript{1} Project Emerge, Women’s Health Hispanic A&U, February 2015
\textsuperscript{2} Monistat Survey n=380 subset of women with previous VVC; Data on file
• The information that a patient responds to varies from person to person

• Keep your assessment of the patient in mind and consider literacy and culture as you develop a plan

• Focus on the benefits of education and tell your patient what to pay special attention to

• Review materials with the patient since no resource is a substitute for one-on-one patient teaching
The path forward…

• Dispel VVC myths through counseling. ItsTimeForTMI.com may be helpful!
• Provide the counseling she needs. MONISTAT® offers great tools, visit the website to order
• She doesn’t know OTC is an option:
  – MONISTAT® begins to cure on contact and relieves symptoms 4x faster* than oral fluconazole, while curing as effectively¹ (it’s prescription strength OTC)
  – MONISTAT® (miconazole) and other topical azoles treat a broader spectrum of yeast species with less drug resistance²,³† than oral fluconazole, making them a good first-line treatment choice
    • Non-albicans species are becoming more prevalent and are more difficult to treat; optimal treatment is still unknown
    • CDC guidelines recommend treating non-albicans species with a longer duration of therapy (7-14 days) with a non-fluconazoleazole
  – MONISTAT® may be appropriate for more patient types than oral fluconazole (including those who are pregnant or on other drugs)²‡

*Based on a clinical study with MONISTAT® 1 Combination Pack Ovule® treatment vs the leading prescription product.
†Per 2015 CDC Guidelines, options for first-line therapy of non-albicans vulvovaginal candidiasis (VVC) include longer duration therapy (7-14 days) with a non-fluconazoleazole regimen.
‡2015 CDC Guidelines recommend the use of 7-day topical azole therapies for treatment of vulvovaginal candidiasis (VVC) in pregnant women.
ACCELERATE study data

• In a randomized, double parallel group study, 300 women were treated with either MONISTAT® 1 Combination Pack OVULE® treatment or DIFLUCAN® (fluconazole) 150 mg

• There was a statistically significant difference in time to onset of relief of itching, irritation, and overall symptoms between treatment groups

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>MONISTAT® 1 HOURS (N=122)</th>
<th>DIFLUCAN® HOURS (N=135)</th>
<th>Pa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itching</td>
<td>1.0</td>
<td>4.0</td>
<td>0.0001</td>
</tr>
<tr>
<td>Burning</td>
<td>1.0</td>
<td>4.0</td>
<td>0.0894</td>
</tr>
<tr>
<td>Irritation</td>
<td>1.0</td>
<td>4.0</td>
<td>0.0071</td>
</tr>
<tr>
<td>Combined symptoms</td>
<td>4.0</td>
<td>16.0</td>
<td>0.0010</td>
</tr>
</tbody>
</table>

For the individual symptoms, MONISTAT® 1 Combination Pack OVULE® treatment provided statistically significant faster onset of relief of itching and irritation than systemic fluconazole oral therapy.

For the combined symptoms, MONISTAT® 1 Combination Pack OVULE® treatment delivered 4x faster onset of relief of symptoms when compared to systemic fluconazole oral therapy (4 hours vs 16 hours).

*a Kaplan-Meier analysis based on overall time to event curves

Source: Bachmann; Presented at ACOG meeting (2015)
Patient feedback from 317 patients using MONISTAT®

Nearly all patients were satisfied with MONISTAT® (95%) and would use MONISTAT® again (97%)

- Almost all patients (91%) reported that their infection was cured in a week
- MONISTAT® relieved symptoms quickly (94%) (n=298)
- 93% of patients were satisfied with MONISTAT® external itch relief cream (n=202)
- 96% of patients were satisfied with the MONISTAT® Coolwipes® (n=175)
- 100% of first time sufferers would use MONISTAT® again (n=95)
- The few that were dissatisfied with MONISTAT® experienced no symptom relief, burning after use, an “allergic reaction,” pain from the applicator, or had a messy discharge

Patient Trial Program; Data on file
Patient education materials are available at www.MonistatProfessional.com

Sample & Savings Pack
(includes patient tips, hydrocortisone sample, & coupons for treatment)

VVC Phone Triage Tool

Treatment Coupon Pad
(available in English & Spanish)

Exam Room Discussion Tool
Video: About Yeast Infections
**Poll question**

A patient who has never had a yeast infection previously calls with symptoms of VVC. What would you recommend to her?

A. OTC MONISTAT® or Vaginal Health Test from MONISTAT® Complete Care™
B. Ask her to come in for an exam
C. Sitz baths
D. Stop having intercourse
E. A or B
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A. OTC MONISTAT® or Vaginal Health Test from MONISTAT® Complete Care™

B. Ask her to come in for an exam

C. Sitz baths

D. Stop having intercourse

E. A or B
Poll question

You have confirmed that your patient has VVC, and she requests a prescription for oral fluconazole. What facts might she NOT know?

A. MONISTAT® cures as effectively as fluconazole and used to be prescription

B. Rx drugs are not always "better" (more effective) than OTC drugs

C. MONISTAT® begins to cure on contact and works 4x faster to relieve symptoms than fluconazole

D. MONISTAT® (miconazole) and other topical azoles treat a broader spectrum of yeast species than oral fluconazole

E. Any or all of the above
You have confirmed that your patient has VVC, and she requests a prescription for oral fluconazole. What facts might she NOT know?

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E. Any or all of the above
References

Data on file


Slide 35:


Thank you for participating!
What were young women’s perceptions about yeast infections?

Market Research Study Demographics and Methodology

Methodology: Online survey

Participants:

- 1,000 women ages 16-24
- 38% have had a vaginal yeast infection
- 80% students (high school through post graduate study), 20% not students
- Race:
  - 51% Caucasian
  - 21% Hispanic, Latino and/or Spanish speaking heritage
  - 17% Black/African American
  - 5% Asian
  - 4% Other
  - 2% Prefer not to answer
- Geographic regions: Northeast, Midwest, South, West

Monistat Survey n=1000; Data on file