



Disclosure

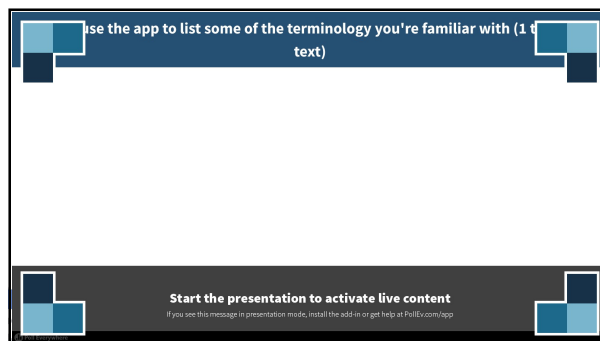
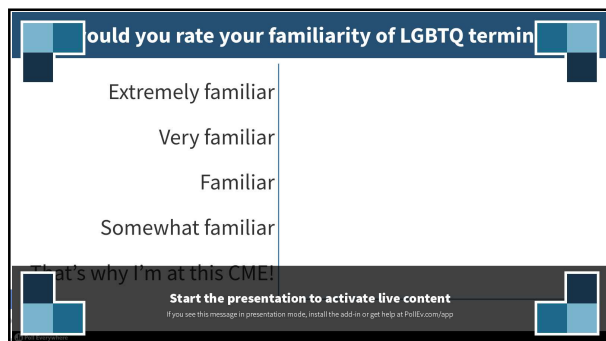
- Planned Parenthood of the Great Northwest & Hawaiian Islands Board Member
- Seattle Pride Board Member
- Member of AAFP Commission of Membership and Member Services

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Part I: What do we know?

- Let's start with some questions
- Please use PollEverywhere
 - Can download from your phone's app store
 - Poll ID: kevinwang051
 - Go to: www.pollev.com/kevinwang051
 - Text to # 37607 and send kevinwang051 to participate

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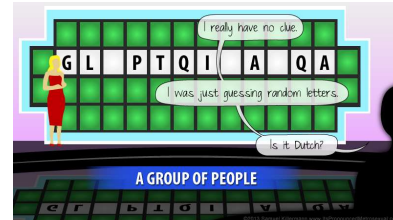
Objectives: Part I

- Have fun!
- Review basic definitions
- Review some statistics
- Review components of a trans-inclusive history



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Alphabet Soup



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Let's start with the basics – LGBTQ

- Lesbian
- Gay
- Bisexual
- Transgender
- Queer

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Getting more advanced

- Gender Binary
- Gender Fluid
- Gender Nonconforming
- Gender Queer

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Additional terminology

- Gender Identity
- Trans*
- Cis Gender
- Intersex
- Gender Affirmation Surgery (Top vs Bottom)

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And more terminology ...

- AMAB – Assigned male at birth
- AFAB – Assigned female at birth
- Natal Sex – Sex assigned at birth

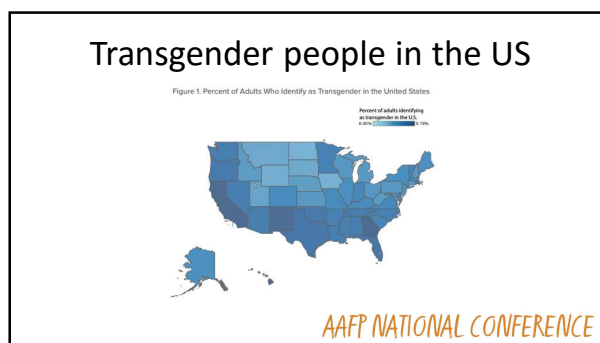
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Genderbread person

- Gender Expression
- Biological Sex
- Sexual Attraction
- Romantic Attraction
- Sexual Orientation

The Genderbread Person v2.1 by www.transgenderbread.com

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Why are we focusing on trans health?

- National Transgender Discrimination Survey – 2015
 - 55% were denied surgical care by insurance companies
 - 25% were denied hormone therapy by insurance companies
 - 15% were asked unnecessary/invasive questions
 - 33% had 1 or more negative experiences with providers within the last year
 - 40% have attempted suicide in their lifetimes – 9x that of the general population

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There's more ...

- Social Determinants of Health
 - 29% were living in poverty compared with 14% of the general population
 - POC were 3 times more likely
 - 15% are unemployed (3x of the general population)
 - 30% were fired, denied a promotion or experienced mistreatment at work
 - Trans people can be fired or denied employment in 32 states

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There is good news!

- Healthcare – Compared with 2008 survey
 - Fewer instances of being denied care
 - Less likely to be harassed
 - Felt provider was more educated in trans health
 - Still had similar rates of postponing care due to fear of discrimination

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Why are we focusing on trans care today?

- By providing gender affirming care, you are providing life saving care
 - Can help reduce healthcare disparities by increasing access and removing barriers to care
 - Significantly decrease risk of suicide

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It all starts with ...

- Cultural humility training for all
 - Patient registration is typically a person's first contact
 - Staff, nurses, providers ... Everyone!
- Intake Forms
 - Legal name vs. preferred name
 - Pronouns
 - Natal sex/sex assigned at birth
 - Gender identity
 - Sexual orientation

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Taking a trans-inclusive history

- Don't make any assumptions
- Respect all identifies
- Build rapport and trust
- Ask the same questions of ALL patients
- Be mindful of your internal reactions and apologize for any mistakes
- Mirror your patient's language

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Chief complaint

- The CC may have nothing to do with their gender identity!

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Additional resources

- Clinically competent and culturally proficient care for transgender and gender nonconforming patients
 - <http://www.cardeaservices.org/training/providing-culturally-proficient-services-to-transgender-and-gender-nonconforming-people.html>
- Affirmative care for transgender and gender non-conforming people
 - <https://www.lgbthealtheducation.org/lgbt-education/learning-modules/>
- Cedar River Clinics training modules
 - <http://www.cedarriverclinics.org/transtoolkit/>

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Part 2: Feminizing Hormone Therapy

Objectives

- Review how to obtain a gender history
- Review risks associated with feminizing hormone therapy
- Discuss the ICATH model of consent
- Review basics for medication management
- Review primary care for the trans-feminine person



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Let's meet your patient!

- RW is a 66 yo person who comes in to establish care. RW comes in with their partner.
 - How do you introduce yourself?
 - How would you start the visit?

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What do you ask?

- Gender story
 - Knew as far back before she was a teenager
 - Never felt right and initially tried to conform as a masculine person
 - Started expressing herself in a feminine manner and that just felt right
- Goals
 - Transition: Social, hormonal and surgical
 - Legal documentation changes

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I'm here because ...

- RW comes in wanting to start hormone therapy
 - Identifies as female
 - Uses she/her/hers
 - Partner is very supportive and they've been to counseling together
 - Eager yet anxious

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RW's medical history

- Past medical history
 - STEMI due to CAD (3 vessel disease)
 - Ischemic cardiomyopathy (last echo revealed EF of 28% with mitral regurgitation and pulmonary HTN)
 - HTN
 - DM II
 - Stage 3 CKD
 - Dyslipidemia

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Starting to get some chest pain ...

- Medications
 - Metformin 850 mg BID (just ran out)
 - Torsemide 20 mg daily (has a few left)
 - Glipizide ER 5 mg daily (just ran out)
 - ASA 81 mg daily
 - Atorvastatin 80 mg qHS (has a few left)
 - Carvedilol 6.25 mg BID (has a few left)
 - Lisinopril 10 mg daily (has a few left)
 - Clopidogrel 75 mg daily (has a few left)
- Allergies: NKDA

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Starting to get dizzy ...

- Past Surgical History
 - Angioplasty with stent placement
 - Right shoulder and left knee surgeries
- Family Medical History
 - Father: MI s/p CABG x3 with HTN and dyslipidemia
- Social History
 - Nonsmoker, rarely drinks alcohol, no drugs (use or exposure)
 - Sexually active with a cis-female, monogamous relationship
 - Retired

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Physical exam

- Vital Signs
 - BP 140/88
 - HR: 84 and regular
 - RR: 16
 - Weight: 208 lbs
 - Height: 5'8"
- What do you want to do for a physical exam?

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Progesterone

Medication	Dose & Frequency/Maximum Dose
Medroxyprogesterone	2.5 mg/day; 10 mg/day
Micronized Progesterone	100 mg/day; 200 mg/day

- Anecdotal evidence suggests that this may help with breast development, mood and libido. Current guidelines do not suggest routine use.
- Most would start with this daily for several months and then switch to cyclical administration to help with breast development.
- Most don't tolerate cyclical administration.

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Safety Data

- Previous study limitations
 - Came from earlier studies in the 1970s and 1990s when higher doses of estrogen were used
 - All used ethinyl estradiol vs 17-beta estradiol that we use in trans care
 - Earlier studies didn't use androgen blockade
- Current evidence
 - No increase in mortality when compared with the general population
 - DVT Risk: Likely due to use of ethinyl estradiol, smoking and external factors

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Monitoring

- BMP should be done at baseline, 3, 6 and 12 months in the first year and annually thereafter
 - Should recheck 2-4 weeks after a dose change
- Estradiol: Should have a goal of < 200 pg/mL
 - At a minimum, check at 3 and 6 months in the first year and annually thereafter
 - Check 6-8 weeks after a dose change
 - Target closer to 200 pg/mL early on to help with physical changes
 - Consider decreasing after the first few years of changes

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Monitoring (Cont.)

- Total testosterone: Goal of < 55 ng/dL
 - Check at 3, 6 and 12 months in the first year of treatment and annually thereafter
 - Should check 6-8 weeks after a dose change

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How would you like to proceed?



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Visit #2

- Started treatment and starting to feel some effects
 - Softening of skin
 - Fewer spontaneous erections and lower libido
 - Chest tenderness
- Lab Results
 - Estradiol: 80 pg/mL
 - Total Testosterone: 100 ng/dL
 - BMP: Normal
- Now what?

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Visit #3

- Changes since last visit
 - Almost no spontaneous erections
 - Mood feels great
 - Chest buds are developing with continued tenderness
- Lab Results
 - Estradiol: 160 pg/mL
 - Total Testosterone: 40 ng/dL
 - BMP: Normal
- Now what?

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Surgical Options

- Top surgery a.k.a. chest surgery
- Bottom surgery a.k.a. vaginoplasty
- Orchiectomy
- Feminizing surgeries: facial feminization, tracheal shaving
- Others including hair removal

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Healthcare maintenance tips

- Provide care for the anatomy that is present
- Be respectful and honor the patient's self description until that person is ready to show you something
- Preventive care does depend on hormonal therapy status
- Majority of the care will be like any other patient

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Healthcare maintenance (Cont.)

- Breast Cancer Screening
 - USPSTF vs UCSF Recommendations
 - Theoretical increased risk with breast development
 - Start at age 50 for those who have been on hormones for > 5 years
 - Breast augmentation can impair the accuracy of mammography
 - Will need mammograms even if off of hormones with the presence of breast tissue

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Healthcare maintenance (Cont.)

- Prostate Cancer Screening
 - Feminizing hormones decrease the risk of prostate cancer but by an unknown amount
 - PSA levels will be falsely low
 - Follow USPSTF recommendations although these may change soon!

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Healthcare maintenance (Cont.)

- Bone Health
 - Screen for those who have had an orchiectomy and a history of at least 5 years without hormones regardless of age OR
 - Screen those ages 50-64 with established risk factors including those on androgen blockers only or evidence of prolonged hypogonadal state OR
 - Screen at age 65

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Healthcare maintenance (Cont.)

- Statin Use in Those 40-70 (USPSTF)
 - Consider exposure to natal hormones vs exogenous hormones
 - May use natal hormone exposure vs exogenous exposure vs average of the two
 - Risk estimation with ASCVD: male vs. female vs. average of both
- Diabetes (USPSTF)
 - No change
- AAA (USPSTF)
 - Consider duration of exposure to natal hormones vs exogenous hormones

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Healthcare maintenance (Cont.)

- STD/HIV Counseling/Screening
 - Trans folks are at increased risk for STD/HIV
 - Screening should be offered after analysis of risk factors

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Part 3: Masculinizing Hormone Therapy

Objectives

- Review risks associated with masculinizing hormone therapy
- Review basics for medication management
- Review primary care for the trans-masculine person



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Let's meet your next patient!

- RG is a 32 yo person who comes in to establish care
 - Identifies as male
 - Wants to start hormone therapy and have a hysterectomy
 - Would also like some information on how to correct legal documents

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RG's medical history

- Past medical history
 - Cerebral palsy (diplegic and wheelchair bound)
 - Depression with anxiety
 - Neurogenic bladder
- Past surgical history
 - Hamstring lengthening
 - Urostomy for neurogenic bladder

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Medical history (Cont.)

- Family medical history
 - Maternal grandfather with, "heart disease"; father with atrial fibrillation, mother with HTN
- Medications: None
- Allergies: NKDA

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And the rest ...

- Social history
 - Recently moved here from Florida
 - Lives in an apartment and has a friend/caregiver 5 hours/day for 7 days/week
 - Receives money from disability and contemplating doing some computer work for extra income

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Physical exam

- Vital signs
 - BP: 116/76
 - HR: 68 and regular
 - RR: 16
 - Weight: Unable to do today as in wheelchair
 - Height: Unable to do as in wheelchair
- Anything else?

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Is he a candidate for hormone therapy?

- Contraindications
 - Active coronary artery disease
 - Polycythemia
 - Hormone sensitive tumors
- Relative contraindications
 - Tobacco use: Usually results in an elevated Hct and this may prevent initiation and you should actively counsel/help to quit smoking!

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Consent

Effect	Expected onset	Expected maximum effect
Sexual desire/libido	<4 months	>7 years
Regrowth body hair growth	>6 months	>5 years
Reduction in body fat	>12 months	>5 years
Increased muscle mass/strength	>12 months	>5 years
Reduction in red blood cell count	>6 months	>5 years
Improvement in mood	>6 months	>5 years
Improvement in bone density	>12 months	>5 years
Improvement in skin condition	>6 months	>5 years
Improvement in hair loss	>6 months	>5 years
Improvement in prostate health	>6 months	>5 years
Improvement in overall health	>6 months	>5 years

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Hormone initiation – Testosterone

Formulation	Dose & Frequency/Maximum Dose
Injectable – Testosterone Cypionate	25-50 mg/week; 100 mg/week (may do q2 week dosing and simply double the dose)
Testosterone Topical Gel 1%	12.5-25 mg qAM; 100 mg qAM
Testosterone Patch	1-2 mg qPM; 8 mg qPM

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Safety data

- No difference in all cause mortality compared to the general cis-gender population
- No increased cardiovascular mortality
- No increased risk of cancer
 - Rare case reports of ovarian cancer which led some protocols to recommend eventual oophorectomy

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Monitoring

- Monitoring
 - CBC: Baseline, 3, 6, 12 months and annually thereafter to check for polycythemia
 - Some don't measure testosterone levels at all although some studies revealed that this runs the risk of suboptimal masculinization
 - Total testosterone: 3, 6, 12 months and as needed once one approaches goals
 - Goal - 400-600 ng/dL (this varies depending on source)
 - I usually check a trough level and shoot for the lower end of the total testosterone goal
 - Check a level in 2-3 months with a dose change

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How would you like to proceed?



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Visit #2

- Labs come back as all normal
- RG is eager to start hormone therapy and is nervous about giving himself weekly injections
- What sort of supplies does he need?
 - Needles: 18 gauge & 25 gauge-1 inch needle
 - Threaded syringe
 - Alcohol wipes and a sharps container

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Injection technique

- Check out [video 1](#) and [video 2](#) for a great overview of supplies along with injection technique!
 - In case the app file doesn't have the links, please go to www.youtube.com and search for Kevin Hatfield injection.

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Visit #3

- Started hormones at the last visit and starting to notice a few things
 - Increased libido
 - Cycles have been getting lighter
 - Increased oiliness of skin

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Surgical Options

- Top surgery a.k.a. chest surgery
- Bottom surgery a.k.a. creation of a phallus

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Healthcare maintenance

- Breast Cancer Screening
 - Should still get mammograms per USPSTF guidelines regardless of hormone therapy
 - s/p Mastectomy – Theoretical risk of breast cancer
 - Should get yearly chest wall and axillary exams
 - Mammogram is not possible although there is some debate
 - Testosterone Effect
 - Does not affect breast cancer risk and should still get annual exams

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Healthcare maintenance (Cont.)

- Cervical Cancer Screening
 - Should follow USPSTF/ASCCP guidelines if he is or isn't on hormone therapy
 - Should alert pathologist that patient is on testosterone, i.e. atrophic changes seen on Pap smears
 - The exam may be distressful to the patient. Here are some tips:
 - Use a pediatric speculum
 - Consider topical lidocaine at the introitus prior to the exam
 - Consider an oral anxiolytic
 - Consider using multiple collection swabs to increase likelihood of getting an adequate sample
 - If inadequate, consider use of vaginal estradiol x3 months and repeat Pap smear
 - Think about terminology!

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Healthcare maintenance (Cont.)

- Uterine Cancer
 - Mixed data of testosterone's effect on the uterine lining
 - Any kind of uterine bleeding should be evaluated, i.e. ultrasound, EMB
- Bone Health
 - Trans-males start with 10-20% less bone mass than natal men
 - Screen for those who have had a gonadectomy and a history of at least 5 years without hormone replacement regardless of age OR
 - Screen patients ages 50-64 with established risk factors including patients with evidence of prolonged hypogonadal state OR
 - Screen at age 65 years

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Healthcare maintenance (Cont.)

- Statin Use in Those 40-70 (USPSTF)
 - Consider exposure to natal hormones vs exogenous hormones
 - May use natal hormone exposure vs exogenous exposure vs average of the two
 - Risk estimation with ASCVD: male vs. female vs. average of both
- Diabetes (USPSTF)
 - No change

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Healthcare maintenance (Cont.)

- STD/HIV Counseling/Screening
 - Trans folks are at increased risk for STD/HIV
 - Screening should be offered after analysis of risk factors

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Part 4: Additional resources

- Review legal documentation resources and challenges
- Review additional online resources for education



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Legal documentation corrections

- Name, gender marker correction will be dependent on the state for IDs and drivers licenses
- Passports, birth certificates and social security cards may also be corrected
- Each will have their own requirements in addition to a letter from their providers
- <http://www.transequality.org/know-your-rights>

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Additional resources

- UCSF – Center of Excellence for Transgender Care
 - <http://transhealth.ucsf.edu/trans?page=guidelines-home>
- Fenway Institute: Affirmative care for transgender and gender non-conforming people
 - <https://www.lgbthealtheducation.org/lgbt-education/learning-modules/>
- Callen-Lorde
 - <http://callen-lorde.org/graphics/2016/06/Callen-Lorde-TGNC-Hormone-Therapy-Protocols.pdf>
- World Professional Association for Transgender Health
 - http://www.wpath.org/site_page.cfm?pk_association_webpage_menu=1351&pk_association_webpage=4655
- Cedar River Clinics training modules
 - <http://www.cedarriverclinics.org/transtoolkit/>

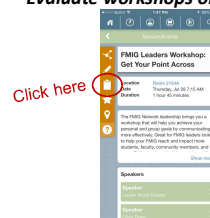
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