Upfront About Psychosis

Psychosis Risk Assessment and Referral in Primary Care and Emergency Medical Settings

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Conflicts of Interest

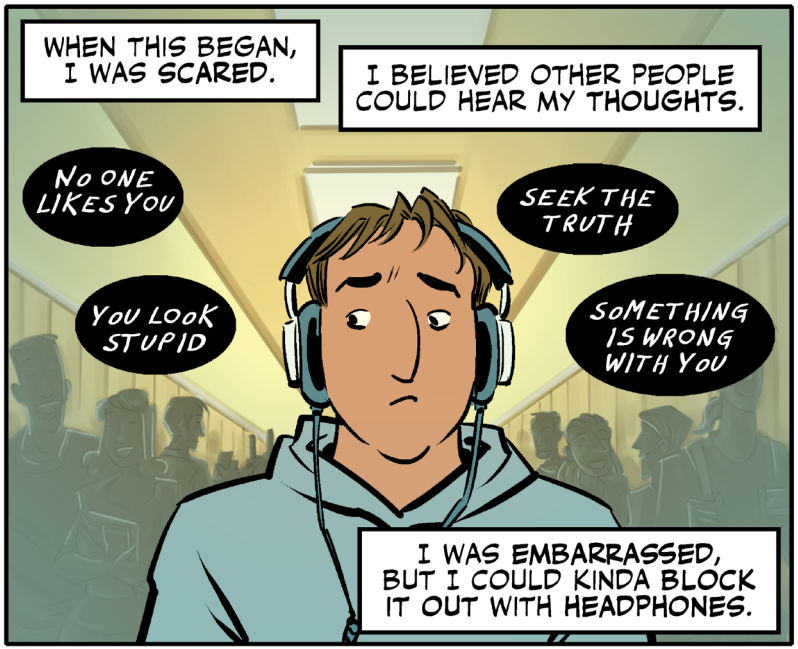
I have no biomedical/financial/ethical conflicts of interest to report.

First Episode Psychosis: Morbidity & Inadequate Care

- 2017 study of insured individuals age 16-30 in the year following a 1st episode of psychosis (FEP):
  - 24x morbidity compared to general population of same-age people
  - 89x compared to general population
  - 41% did not receive any psychotherapy
  - 61% did not fill any antipsychotic medication prescriptions

Schoenbaum M, Sutherland JM, Chappel A, et al. Twelve-month health care use and mortality in commercially insured young people with incident psychosis in the United States. Schizophr Bull. 2017; doi:10.1093/schbul/sbx009

Early intervention helps

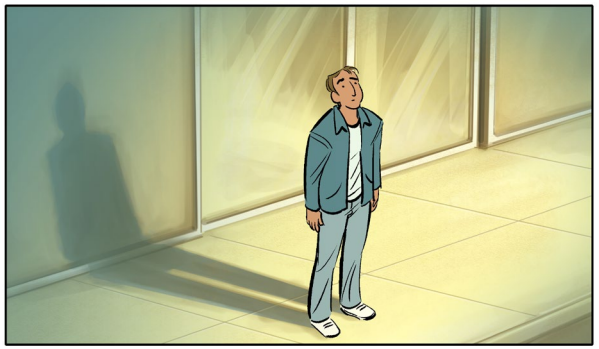


- In one study, across 34 clinics in 21 states where ½ utilized specialized multidisciplinary treatment (NAVIGATE) and ½ TAU, outcomes were better for the NAVIGATE group.
- The NAVIGATE group had:
  - More improvement in symptoms and quality of life
  - Remained in treatment longer
  - Improved work and school participation
- Particularly for those with a duration of untreated psychosis (DUP) <74 weeks.

Kane JM, Robertson DG, Schooler NR et al. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program [published online ahead of print October 20, 2015]. Am J Psychiatry. appi.ajp.2015.15050632.

Primary Care and Emergency Medical Providers Can Help!

- In Oregon, most youth visit their primary care providers or emergency medical providers in the early phases of their illness
- In one of study comparing 11,690 individuals diagnosed with schizophrenia spectrum disorders, compared to controls (n = 81,793) they **consulted their PCP 14 x's more often**
- You can help **detect** psychosis and risk for psychosis, **reassure** families, and **refer** to appropriate services



Sullivan SA, Hamilton W, Tilling K, Redaniel T, Moran P, Lewis G. Association of Primary Care Consultation Patterns With Early Signs and Symptoms of Psychosis. *JAMA Netw Open*. 2018;1(7):e185174.

Learning Objectives: by the end of this session you should be able to:

1) **Define** psychosis and schizophrenia
2) **Utilize** tools to help determine who has or is at risk for having psychosis
3) **Refer** to Oregon statewide Coordinated Specialty Care (CSC) programs called EASA
4) **Initiate** a medical work-up of first-episode psychosis
5) **Describe** three central tenets of early psychosis treatment and how you might collaborate with EASA in caring for young people and families

DSM-5 Definition of Schizophrenia

- Symptoms that have an impact on social/academic/occupational functioning for at least 6mos, featuring

✓ **D**elusions

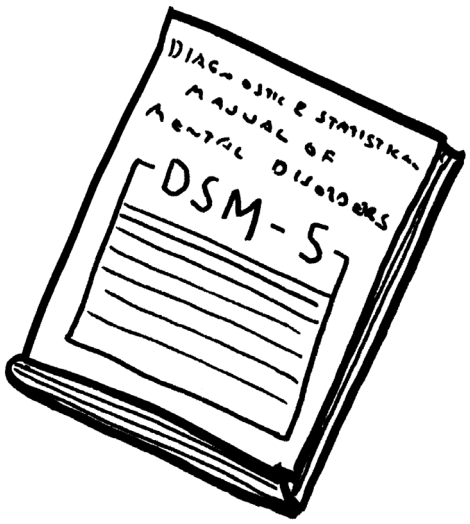
✓ **H**allucinations

✓ Disorganized **S**peech

✓ Disorganized **Be**havior

✓ **N**egative **S**ymptoms

"DHS BeNS"



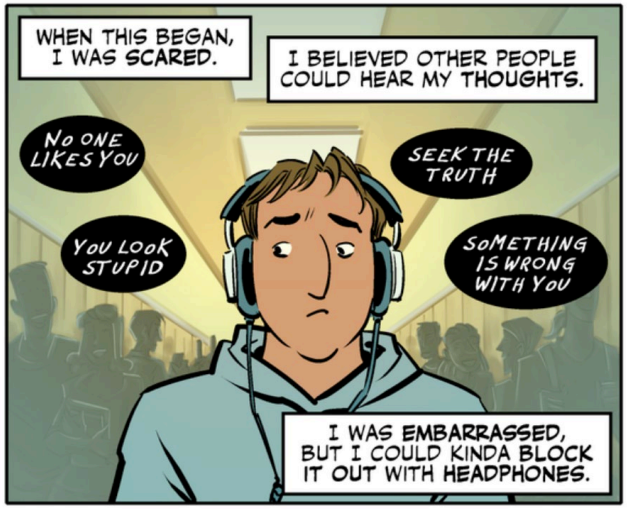
Delusions

Often persecutory in nature, this might involve an individual believing they are being spied on, followed, cheated on, or poisoned

A grandiose delusion might involve the sense that one is special, a “chosen one” or that they can communicate directly with famous people, or that they can telepathically connect with others

Hallucinations

- **Hallucinations:** "erroneous percepts in the absence of identifiable stimuli"[1] or "a sensory experience in which a person can see, hear, smell, taste, or feel something that is not there."[2]
- **Illusion:** a pattern/phenomenon which emerges from an identifiable stimuli, but which morphs into something only the individual senses
- **AVH:** auditory verbal hallucination: often voice or voices commenting
- **Nonverbal Auditory Hallucination:**
  - Buzzing
  - Clicking
  - Drilling
  - Knocking
  - Whooshing



1 Jardri R, Bartels-Velthuis AA, Debbané M, Jenner JA, Kelleher I, Dauvilliers Y, Plazzi G, Demeulemeester M, David CN, Rapoport J, Dobbelaere D. From phenomenology to neurophysiological understanding of hallucinations in children and adolescents. Schizophrenia bulletin. 2014 Jun 13;40(Suppl_4):S221-32.
2 Maijer K, Hayward M, Fernyhough C, Calkins ME, Debbané M, Jardri R, Kelleher I, Raballo A, Rammou A, Scott JG, Shinn AK. Hallucinations in children and adolescents: an updated review and practical recommendations for clinicians. Schizophrenia bulletin. 2019 Feb 1;45(Supplement_1):S5-23.

Hallucinations

- Auditory Hallucinations in Youth are Common[1]
  - 12.7% in children (ages 9-12)
  - 12.4% in adolescents (ages 13-18)
  - 5.8% in adults (ages 18-60)
  - 4.5% in the older adults (60+)
- Persistence into teens and adulthood is associated with more psychiatric (not necessarily psychosis) risk[2]
- Distress is one of our best indicators of progression to psychosis
- Both Distressing and Nondistressing AH are linked to trauma and being distracted
- Some vulnerability factors to experiencing distress with AH include:
  - Negative Self Worth
  - Bullying, Trauma
  - Low Self-efficacy
  - Less family support

1 Maijer K, Begemann MJH, Palmen S, Leucht S, Sommer IEC. Auditory hallucinations across the lifespan: a systematic review and meta-analysis. Psychol Med . 2017;48:879–888.
2 van Os J, Guloksuz S. A critique of the “ultra-high risk” and “transition” paradigm. World Psychiatry. 2017 Jun;16(2):200-6.
3 Løberg EM, Gjestad R, Posserud MB, Kompus K, Lundervold AJ. Psychosocial characteristics differentiate non-distressing and distressing voices in 10,346 adolescents. European child & adolescent psychiatry. 2019 Feb 28:1-1.

Disorganized Speech

Speech that represents a deviation from baseline and is marked by:

- incoherence
- being illogical
- frequently shift to unrelated topics

Behavioral Dysregulation

Again, represents clear deviation from baseline and may include:

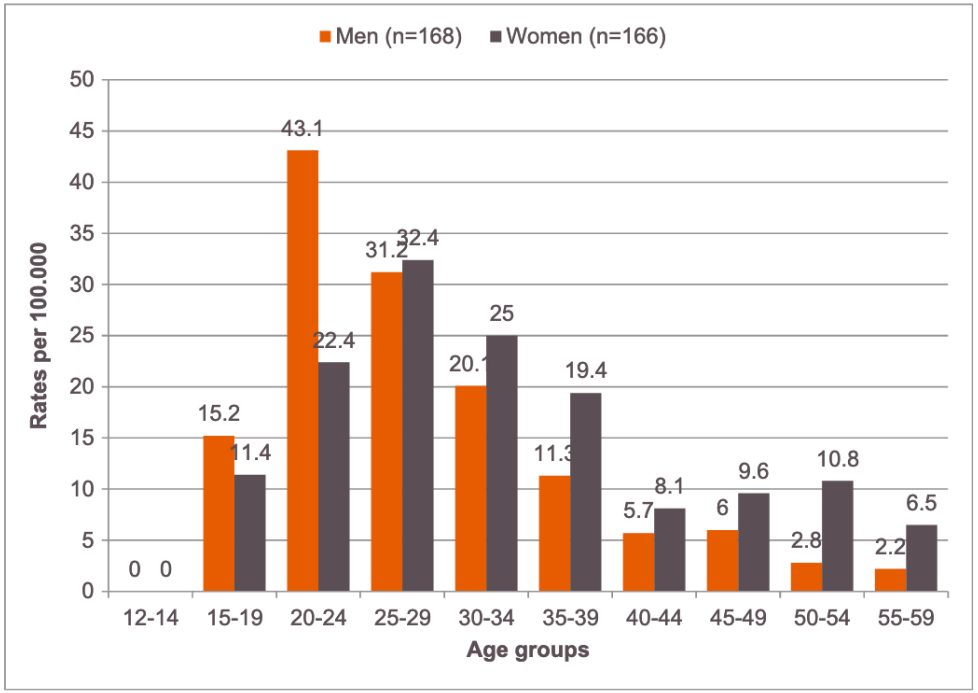
- Marked change in dress or wearing weather inappropriate attire
- Odd affects (smiling, laughing, crying in an off-topic manner)
- Socially withdrawing (for a previously out-going person)
- Confronting others or making accusations or statements that, to others, seem out-of-the-blue

Negative/Cognitive Symptoms

- Motor activity that is impaired (slowed)
- Difficulties with social cognition (thinking about what others are thinking and feeling)
- Impaired metacognition (self reflection)
- Problems with memory and learning
- Decreased ability to sustain attention
- Reduced working memory
- Difficulties with executive functioning (planning, sequencing, carrying out tasks)
- Slowed/impaired capacity for solving problems

Age of First Schizophrenia Spectrum Disorder Diagnosis

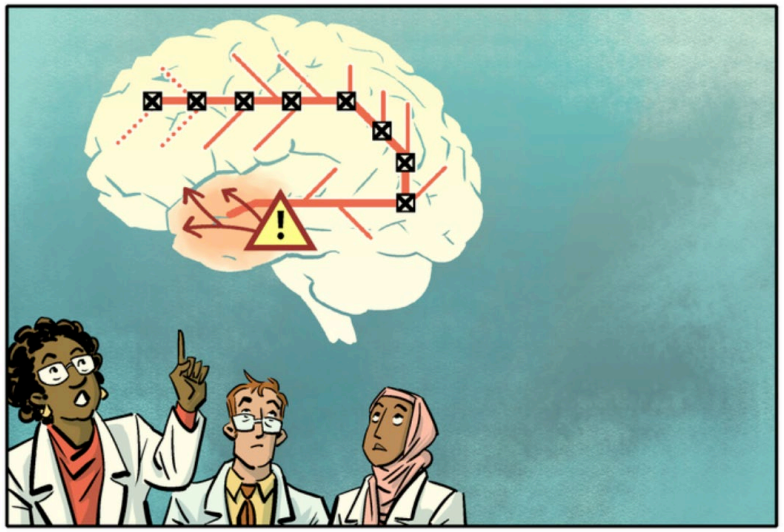
- Most men develop schizophrenia at age 15-25, young women 20-30
- Approximately 12.5 – 33% of people develop symptoms before age 18
- The male to female ratio is 1.4:1.
- Childhood-onset schizophrenia (COS) is defined as onset 13 and younger and is extremely rare (1:100,000)
- Internationally, the prevalence of schizophrenia is 1-2%



From: Riecher-Rössler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses-a critical review. *Arch Womens Ment Health*. 2018;21(6):627-648

Who is most vulnerable?

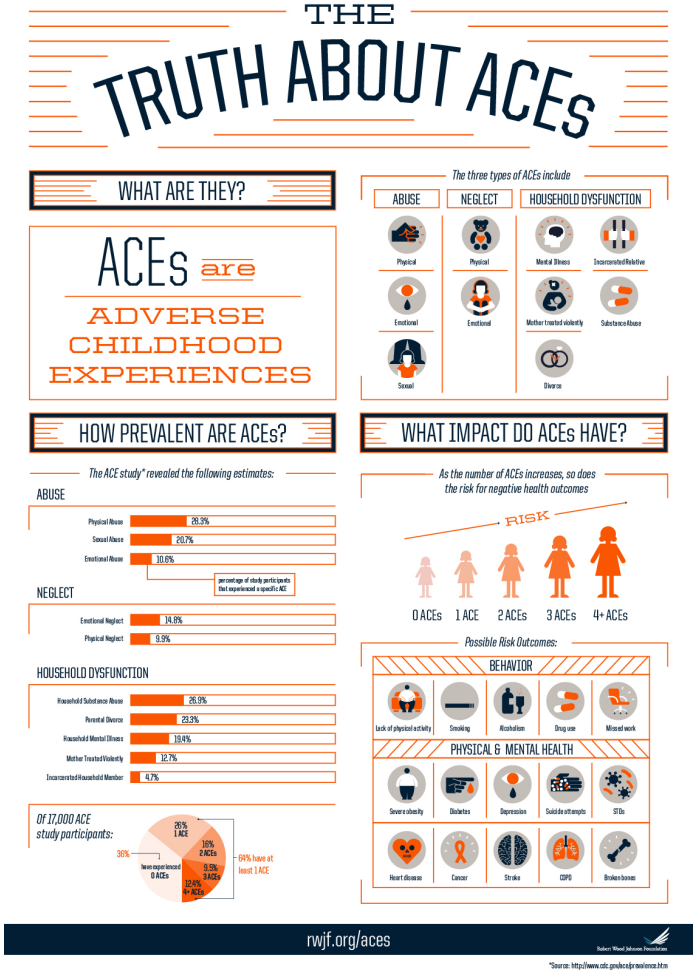
- People with a family history of schizophrenia spectrum disorders
- Individuals who have had previous brief psychotic episodes or attenuated psychotic symptoms
- Trauma / Violence
- Adverse Childhood Events
- Displacement
- Confusion About Language / Worry About Missing Communication
- Poverty
- Bullying
- Racism
- Poor Nutrition during Gestation
- Disrupted Early Attachments…



Anglin DM, Ereshefsky S, Klaunig MJ, et al. From Womb to Neighborhood: A Racial Analysis of Social Determinants of Psychosis in the United States. *Am J Psychiatry*. 2021;178(7):599-610.

Acknowledging Trauma

ALL stressors in childhood and adolescence—particularly in the absence of consistent, secure attachments and relationships—disrupt neurobiology, specifically development of inhibitory centers, they impair learning and activate threat mechanisms that disrupt emotion regulation; they may predispose an individual to the kinds of symptoms outlined in this lecture



https://www.rwjf.org/en/library/infographics/the-truth-about-aces.html

Hallucinations do NOT = Psychosis

Detailed hallucinations described in an organized fashion are more likely associated with PTSD

- "Overly elaborate and detailed, and/or occur absent of more overt evidence of thought disorder and disorganized behaviors are atypical for 'true psychosis'."[1]
- Hlastala and McClellan's study of those with "atypical psychosis" showed that, over 20 years, 0 converted to bipolar disorder or psychosis.[2]

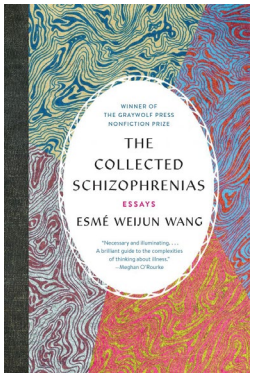
[1] McClellan J. Psychosis in children and adolescents. Journal of the American Academy of Child & Adolescent Psychiatry. 2018 May 1;57(5):308-12.

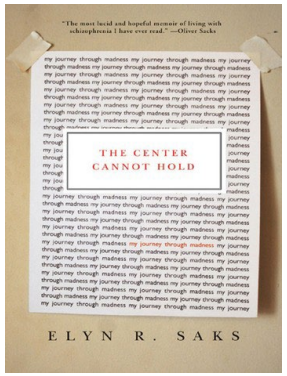
[2] Hlastala SA, McClellan J. Phenomenology and diagnostic stability of youths with atypical psychotic symptoms. Journal of Child & Adolescent Psychopharmacology. 2005 Jun 1;15(3):497-509.

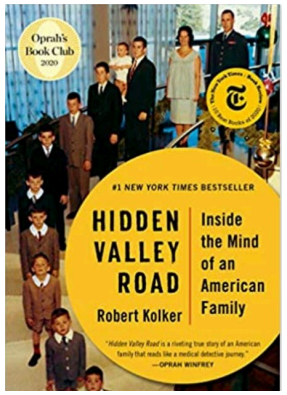
Most people don't first seek treatment for "psychosis risk syndrome"

In one study of 232 patients with first-episode of schizophrenia spectrum disorder, they first sought treatment for:

- **19% - Restlessness**
- **19% - Depression**
- **18% - Anxiety**
- **16% - Trouble with thinking and concentration**
- **15% - Worrying**
- **13% - Lack of self-confidence**
- **12% - Lack of energy, slowness**
- **11% - Poor work performance**
- **10% - Social withdrawal, distrust**
- **10% - Social withdrawal, communication**





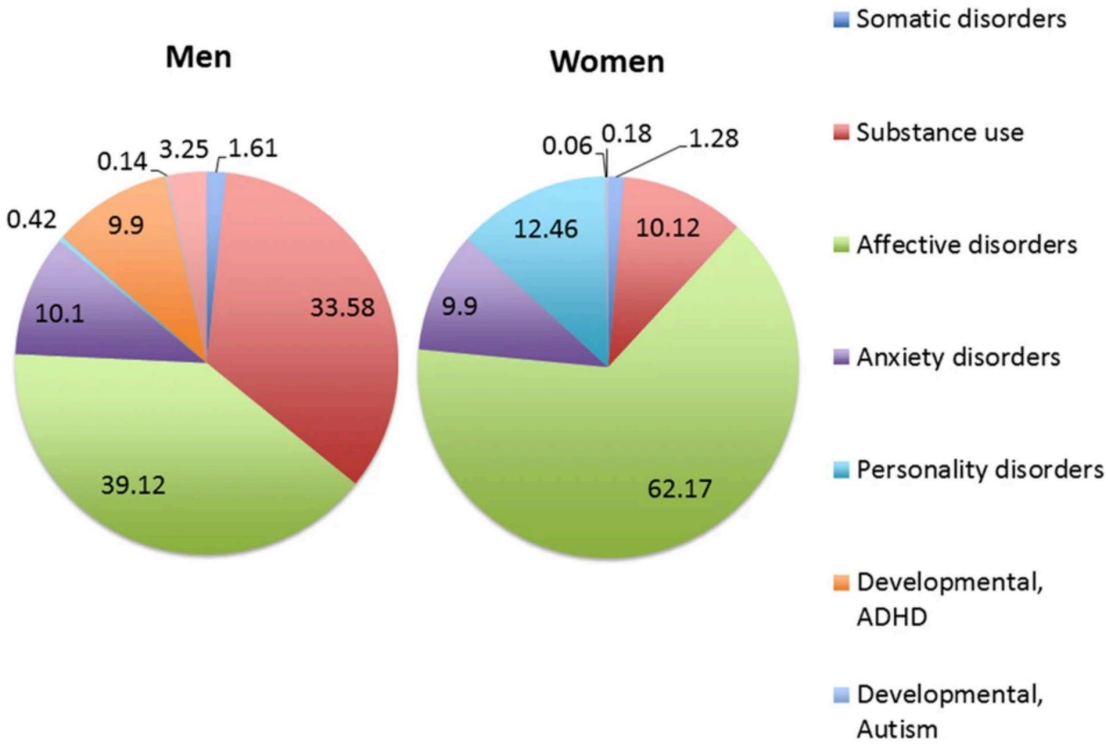


Hafner H, Maurer K, Loffler Early detection of schizophrenia: current evidence and future perspectives. World Psychiatry. 2006;5(3):130-8

Before clarity, diagnostic uncertainty…

Fig. 1: Last diagnosis preceding first hospitalisation for schizophrenia-spectrum disorder.

From: The clinical course of schizophrenia in women and men—a nation-wide cohort study

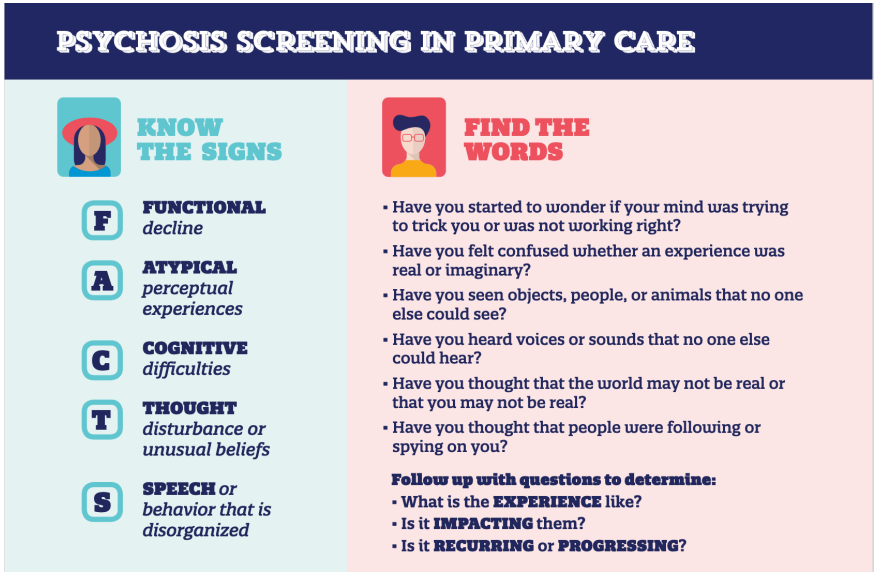


Last recorded non-psychotic diagnosis for women (right) (*n*=2263) and men (left) (*n*=2615) before hospitalization for SSD, for those who had at least 1 prior hospitalization.

Sommer IE, Tiihonen J, van Mourik A, Tanskanen A, Taipale H. The clinical course of schizophrenia in women and men-a nation-wide cohort study. *NPJ Schizophr*. 2020;6(1):12.

If you suspect psychosis…

- Ask the types of questions listed on the PsychosisScreening.Org website **and/or** administer the Psychosis Questionnaire Brief (PQB).
- The PQB is a 21 question screening tool found here:
- EASA website: https://portlandstate.qualtrics.com/jfe/form/SV_033kbbJOtKgG3DT
- PDF here: https://www.psychosisscreening.org/uploads/1/2/3/9/123971055/pq-b.pdf



Questions to Pose

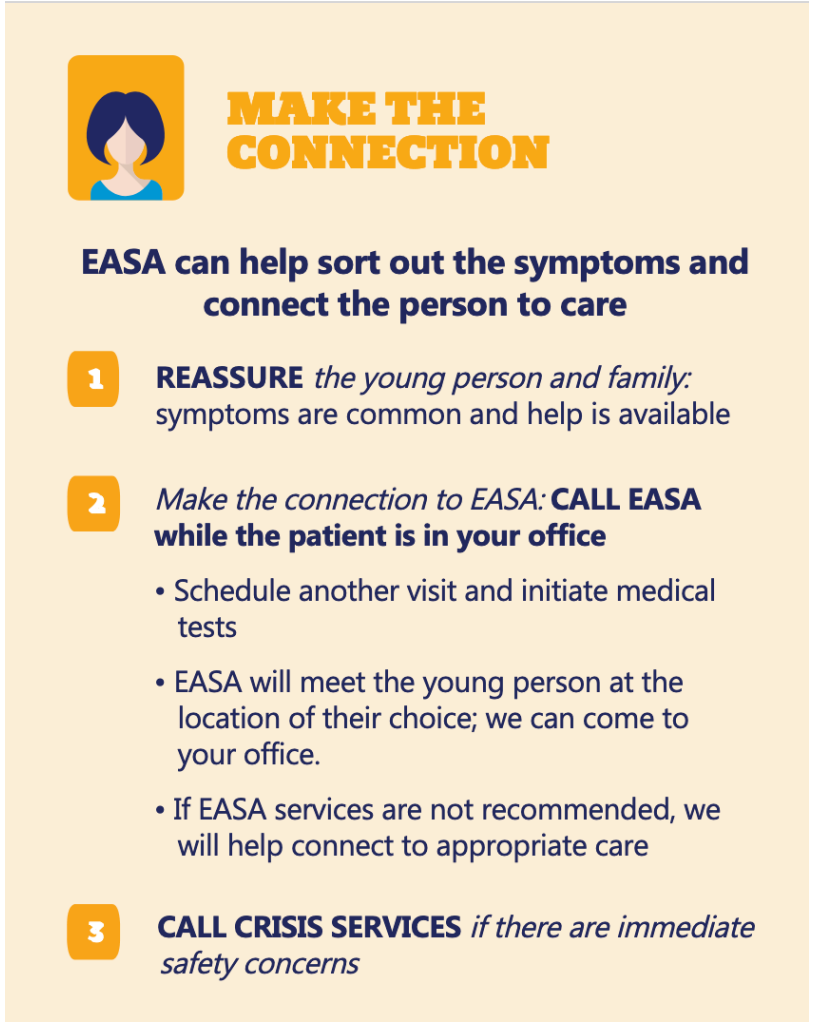
- Have you started to wonder if your mind was trying to trick you or was not working right?
- Have you felt confused whether an experience was real or imaginary?
- Have you seen objects, people, or animals that no one could see?
- Have you heard voices or sounds that no one else could hear?
- Have you thought that the world may not be real or that you may not be real?
- Have you thought that people were following you or spying on you?

Follow-up Questions

- Why do you think this is happening?
- What is this experience like for you?
- What (if any) impact is this having on your life?
- Is this experience one you having over and over?
  - Is this getting better or worse?
- Does anyone else in your life know this is happening?
  - Do you feel anyone is supporting you through this?

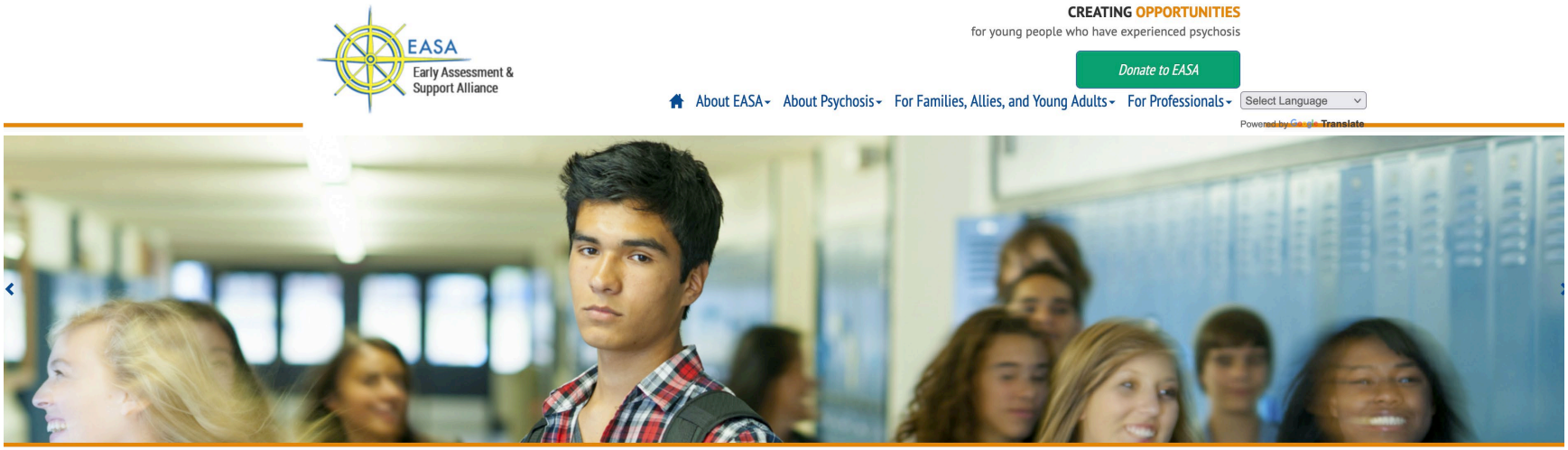
Refer to EASA

- If you suspect that someone may have a psychotic illness or is at high risk for one, contact the Early Assessment & Support Alliance (EASA) Program in the young person's county of residence:
- EASA programs are multidisciplinary teams that:
  - evaluate and support individuals ages 12-27
  - utilize the Structured Interview for Psychosis-Risk Syndromes (SIPS)
  - complete thorough diagnostic screening/interviewing responding
  - offer treatment for young people and their support network (family/identified family) for 2 years
  - provide academic/occupational/housing support as needed
  - offer multifamily groups, cognitive behavioral therapy for psychosis **and medication treatment as warranted**



https://easacommunity.org/easa-programs.php

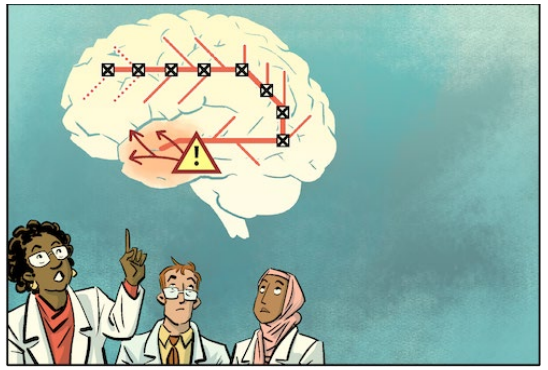
www.easacommunity.org



Click here to find the contact information for the intake coordinator in the individual's county.

Medical Workup of First Episode Psychosis

- Mental Status Examination
- Neurological Examination
- Labs
  - Complete Blood Count
  - Comprehensive Metabolic Panel
  - Urine Toxicology
  - Serum Toxicology
  - Thyroid Stimulating Hormone, FT4 anti microsomal antibodies, anti thyroglobulin antibodies
  - Parathyroid Hormone (especially if hypercalcemic)
  - ESR and CRP
  - STI Panel
  - Pb Level
- Pre-Treatment Screens (Second-generation Antipsychotics)
  - EKG
  - HBA1c
  - Fasting Lipid Panel



Medical Workup of Psychosis

Consider EEG and MRI if:

- History of absence seizure-like symptoms
- New, unremitting headaches
- Recent head trauma
- Concern about encephalopathy (confusion/delirium/rapid onset/waxing and waning course)
- Multimodal Hallucinations (particularly VH)

Consider Evaluation of Auto-Immune Encephalitis (LP + Mayo Serum + CSF Panels) if:

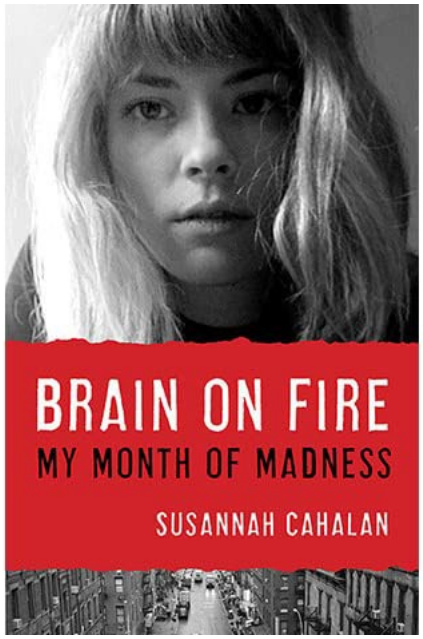
- Rapid-onset or rapid progression (3 months) of working memory deficits (short-term memory loss), altered mental status, or psychotic symptoms
- Age of onset seems outside the bounds of norm (<13yoa) or symptoms follow viral illness and involve motor functioning

What is Autoimmune Encephalitis?

1. Rapid-onset Working Memory Deficits, Altered Mental Status, and Psychiatric Symptoms
2. At least one of the following:

- New focal CNS findings
- Seizures not explained by established diagnosis of epilepsy
- CSF pleocytosis (WBC >5 cell/mm^2)
- MRI features suggestive of encephalitis: T2 lesions in one or both temporal lobes, or in multifocal areas involving grey matter, white matter or both compatible with demyelination or inflammation

3. Not better explained by other causes



Graus F, Titulaer MJ, Balu R, et al. A clinical approach to diagnosis of autoimmune encephalitis. *Lancet Neurol*. 2016;15(4):391-404.

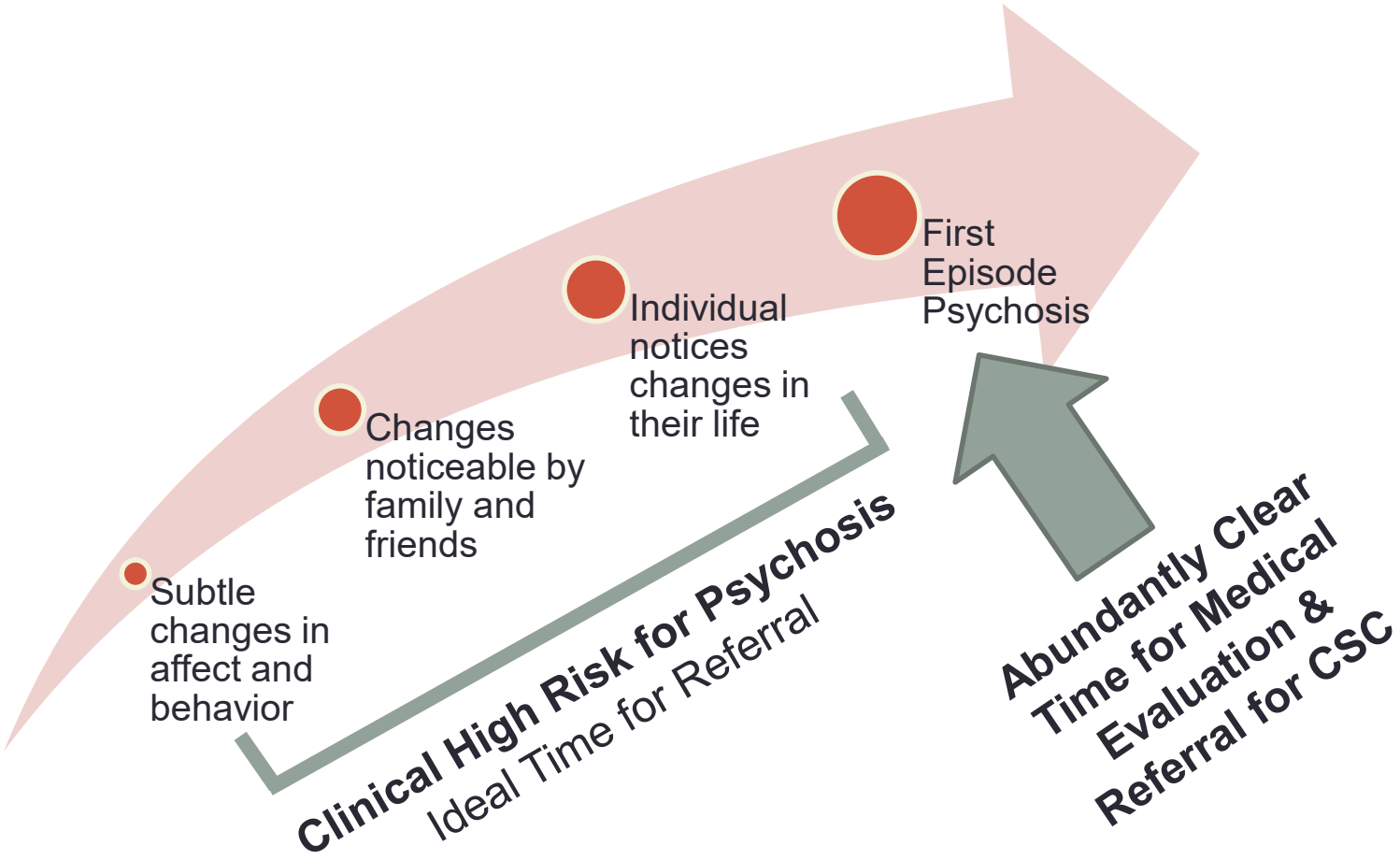
OPAL

Oregon Psychiatric Access Line

- Youth (OPAL - K)
- Adults (OPAL – A)
- Monday – Friday - 9am – 5pm
- 1-855-966-7255

- Intended for Primary Care Providers
- Staffed by physicians
- Help considering bio-psycho-social formulation of cases
- Help thinking evaluation, treatment, and resource options
- Written consultation summary

Along the way…



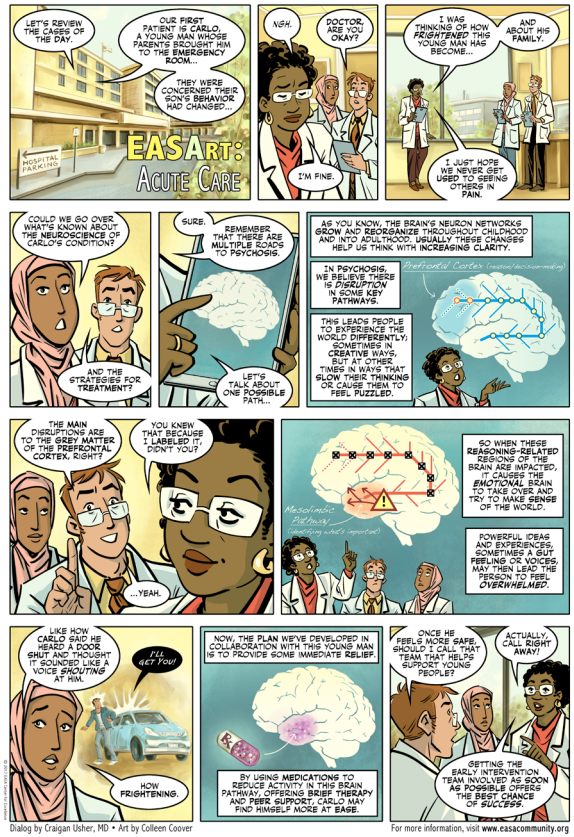
Evaluation

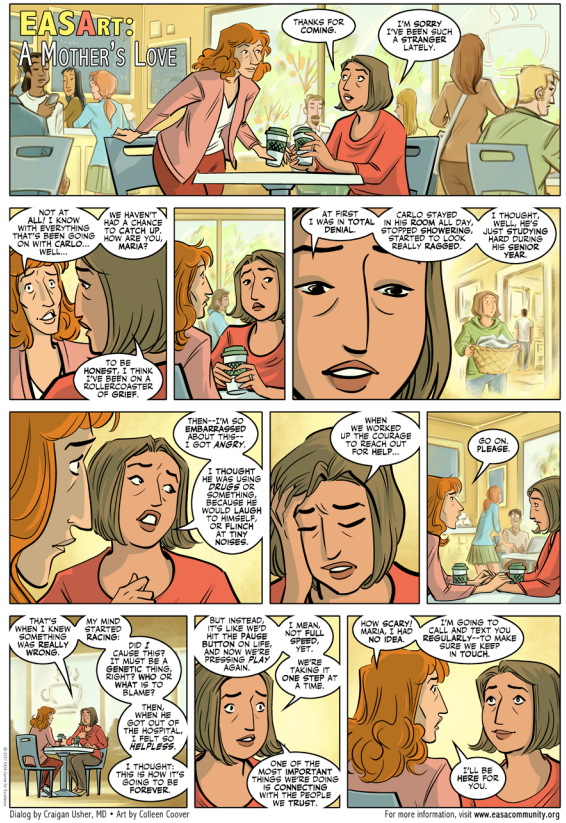
Treatment

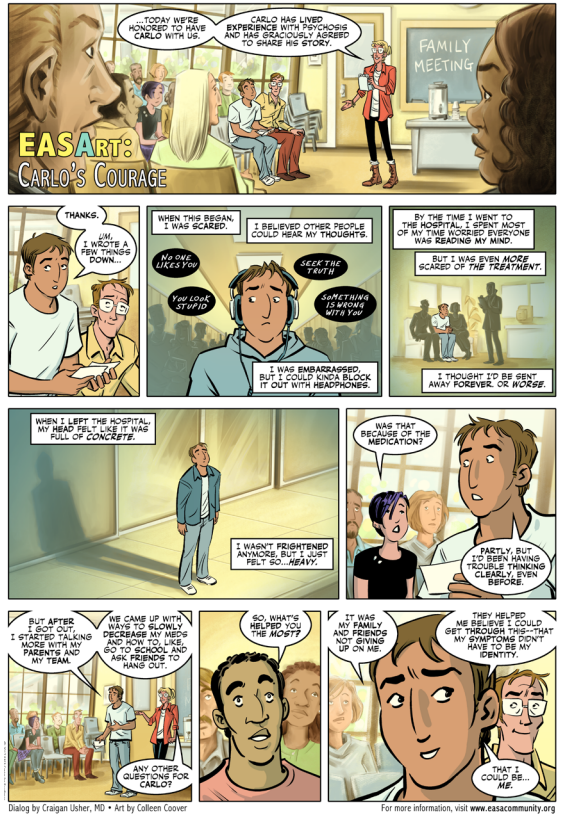
EASA is a collection of Recovery Oriented Coordinated Specialty Care teams located throughout Oregon

- **Psychoeducation**
  - You are not alone. This has happened to others! It gets better, usually a lot, and recovery is possible
- **Individual Therapy**
  - Symptoms are neurological deceptions; we can acknowledge voices or disruptions and find ways to work with/around them
- **Functional / Patient-Guided Collaborative Teamwork**
  - What are your goals? How can we achieve them?
- **Family Therapy/Guidance**
  - Let's solve problems together
- **Housing / Food Assistance**
  - Safe place to live
- **Employment Support**
  - What kind of work would you like to do/do you do? How can help you make this work?
- **Academic Support**
  - 504 plans / IEP / safe place and people to turn to for support
- **Safety Planning**
  - Suicide is a major risk in psychosis; what strategies can we use to help in case of crisis?

Three Comics About EASA







www.easacommunity.org/easa-art.php

Individual Psychotherapy for Psychosis

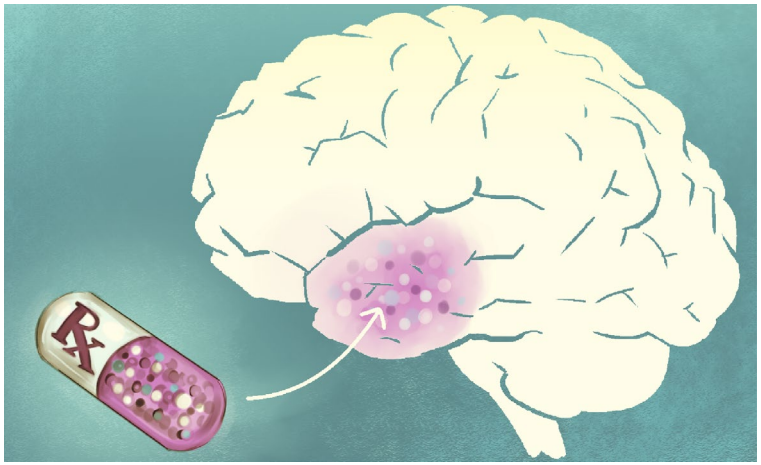
School Support

- School-based counseling
- Medication accommodations
- Identifying triggers (loud noises in gym, the din of cafeteria voices)
- Providing alternative, quiet space at school for study or exams
- Extra time to complete exams
- Flexible deadlines
- In class support including executive function support with an emphasis on skills versus product
- Alternatives to public speaking
- Extra time to complete exams

https://www.nasmhpd.org/sites/default/files/Guidance_Document_Supporting_Students.pdf.

Family Support

- Believe in your power
- One step at a time
- Consider using medication to protect your future…
- Reduce stresses for a while
- Anticipate life stress
- Keep it calm
- Give each other space
- Set a few simple limits
- Solve problems step by step



"Drugs don't cure schizophrenia and they usually don't work for a person with a mental health disorder if that person doesn't have a place to live and an adequate support system. Psychiatry places a bad bet for itself and its patients if it expects quick biological breakthroughs and tamely accepts a restricted role as pill prescriber."

-Allen Frances, MD

Duke University

Frances, A. Resuscitating the biopsychosocial model. Lancet Psychiatry. 2014 Dec;1(7):496-7.

Medications don't cure, but they can help quiet symptoms…

Guiding Principles

- Dopamine Receptor Block Agents (DRBAs) opposed to "antipsychotics"
- Shared Decision Making
- Choices based on Side-Effect Profile (no one antipsychotic save Clozapine has been shown to outperform others)
- Daily Treatment/Adherence to Oral Medications and Long-acting Injectables Help Improve Outcomes
- Focus on Functional Recovery (opposed to Symptom/Syndrome Remission)
- Taper and Discontinuation Strategies Always Kept in Mind

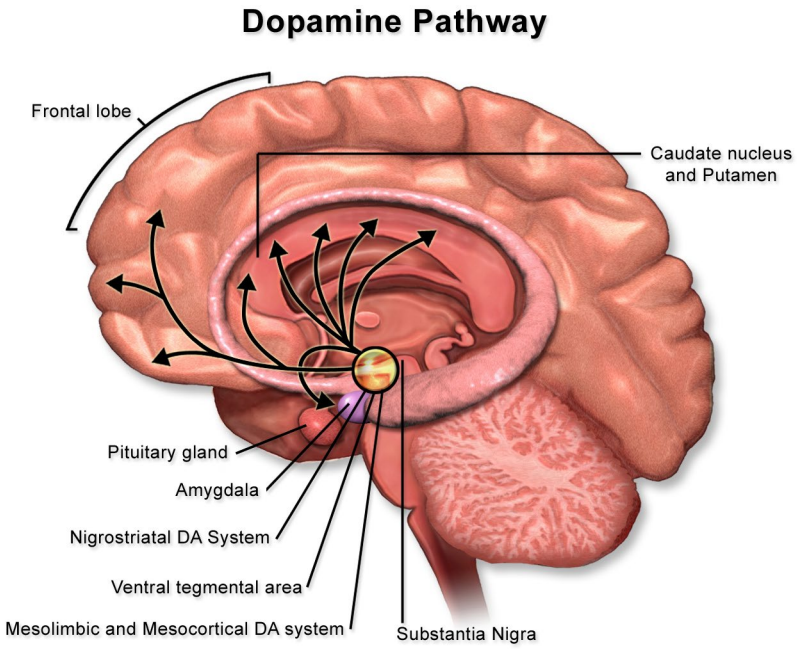
Ways we might collaborate…

Primary Care Providers may:

1. Initiate Referrals to EASA ✓
2. Collaborate on completing work-up ✓
3. Help support families and the hard work of recovering from episodes and maintaining hope ✓
4. Collaborate on addressing treatment gaps (continuing medications)
5. Helping monitor and address side-effects
6. Problem solve / share the dilemma with young people that individuals with psychosis are at increased risk for:
   - A more sedentary lifestyle
   - School dropout
   - Early cardiovascular disease / metabolic syndrome*
   - Smoking and other substance use disorders
   - Suicide and Self-Harm

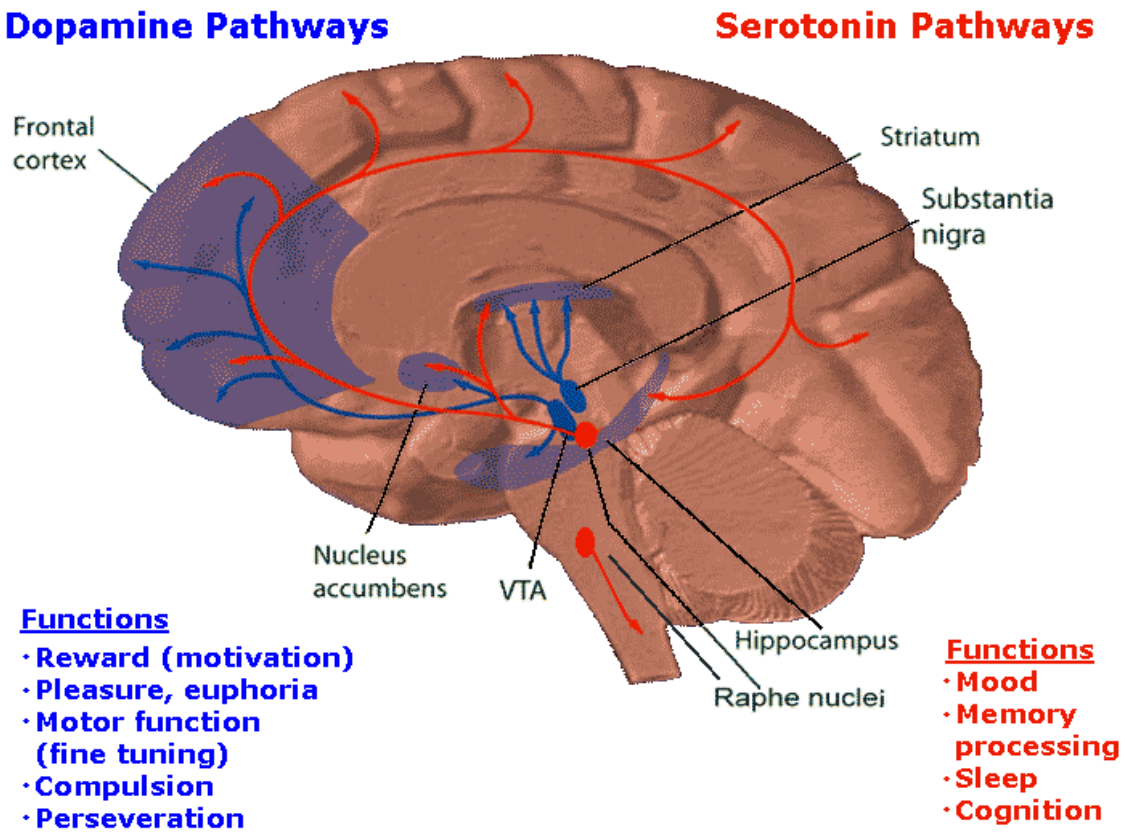
A Bit of Neuroscience: the good and the bad about dopamine receptor blocking agents

- Mesolimbic: ventral tegmentum (midbrain) to the nucleus accumbens. BLOCKADE = reduced salience, reduced positive symptoms
- Tuberoinfundibular: thalamus to the pitituitary gland. BLOCKADE = hyperprolactinemia.
- Mesocorticol: ventral tegmentum (midbrain) to prefrontal cortext. BLOCKADE = may exacerbate negative symptoms/cognitive dulling
- Nigrostriatal: substantia nigra with the dorsal striatum (caudate and putamen). BLOCKADE = extrapyramidal symptoms (EPS)



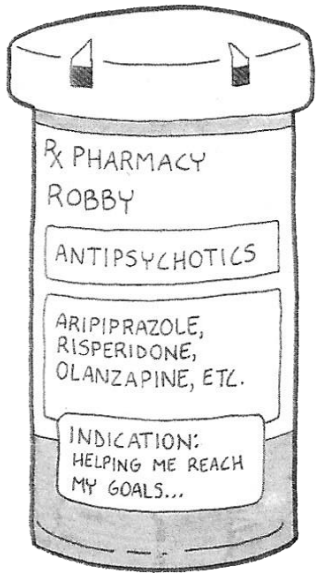
First-Generation DRBAs

- A selection of common drugs of this class include:
  - Chlorpromazine (Thorazine)
  - Fluphenazine (Prolixin)
  - Haloperidol (Haldol)
  - Molindone (Moban)
  - Perphenazine (Trilafon)
  - Thioridazine (Mellaril)
  - Trifluoperazine (Stelazine)



Second-Generation DRBAs

- A selection of common drugs of this class include:
  - Aripiprazole (Abilify)*
  - Asenapine (Saphris)
  - Clozapine (Clozaril)
  - Lurasidone (Latuda)
  - Olanzapine (Zyprexa)
  - Paliperidone (Invega)**
  - Quetiapine (Seroquel)
  - Risperidone (Risperdal)
  - Ziprasidone (Geodon)



*available in **q4 week** LAI form (10mg = 300mg, 15mg = 400mg, 20mg = 600mg oral:LAI aripiprazole monohydrate)

available in **q4 week and q12 week LAI form (3mg=25-50mg, 6mg=75mg, 9mg=100mg, 12mg=150mg Oral:paliperidone palmitate)

Two Common "First Try" SGAs*

- Aripiprazole (Abilify)
  - Less likely to cause massive weight gain
  - Most common reasons for discontinuation:
    - Akathisia (marked restlessness)
    - Lack of efficacy
- Lurasidone (Latuda)
  - Again, same rationale for early use.
  - Most common reasons for discontinuation
    - Same as above: Lack of efficacy or akathisia, sedation.

*based on metabolic profiles, not efficacy

Malla A, Mustafa S, Rho A, et al. Therapeutic effectiveness and tolerability of aripiprazole as initial choice of treatment in first episode psychosis in an early intervention service: A one-year outcome study. Schizophr Res. 2016;174(1-3):120-125.

Common "Second Try" Medications

- Olanzapine (Zyprexa)
  - More likely to be sedating
  - More likely to cause very immense weight gain
  - Olanzapine arm of Treatment of Early Onset Schizophrenia Spectrum (TEOSS) Disorders Study discontinued due to this side-effect.
- Quetiapine (Seroquel)
  - Higher doses required to achieve antipsychotic effect
  - Fatigue
  - Weight gain
- Risperidone (Risperdal) and it's cousin medication Paliperidone (Invega)
  - More likely to cause movement disorders
  - Hyperprolactinemia (elevation in prolactin which can lead to gynecomastia or even lactation)

Sikich L, Frazier JA, McClellan J. Double-blind comparison of first- and second-generation antipsychotics in early-onset schizophrenia and schizo-affective disorder: findings from the treatment of early-onset schizophrenia spectrum disorders (TEOSS) study. Am J Psychiatry 2008 165(11):1420-31.

Whale R, Harris M, Kavanaugh G, et al. Effectveness of antipsychotics used in first-episode psychosis: a naturalistic cohort study. BJPsych Open. 2016;2(5):323-329.

Early Choice: Long-acting Injectibles (LAIs)

- Long-acting injectable Aripiprazole (Abilify Maintena q4 wks)
- Long-acting injectable Paliperidone (Invega Sustenna q4 wks & Invega Trinza q12 wks)
- Long-acting injectable Risperidone (Risperdal Consta q2 wks)
- Long-acting injectable Haloperidol (Haldol Decanoate q4 wks)

Anderson JP, Icten Z, Alas V, Joshi K. Comparison and predictors of treatment adherence and remission among patients with schizophrenia treated with paliperidone palmitate or atypical oral antipsychotics in community behavioral health organizations.
BMC Psychiatry. 2017 Oct 18;17(1):346.

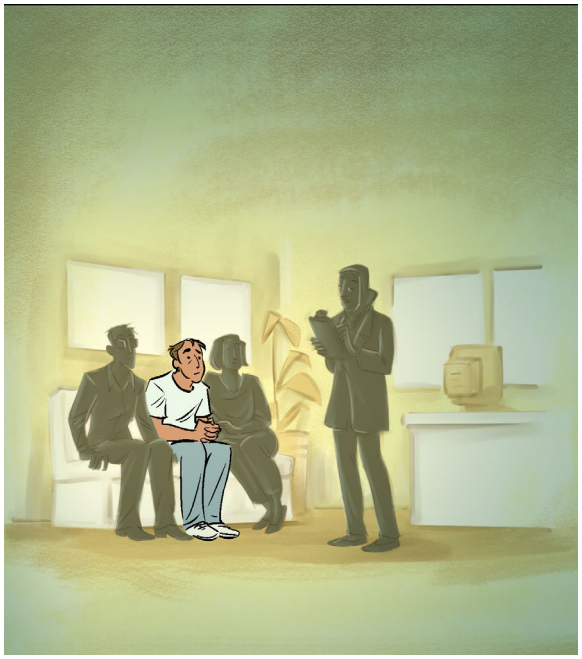
Coordinating care during treatment gaps: the case for long-acting injectibles

- **Study 1 (Subotnik et al):**
  - 12mos
  - 86 people with first-episode psychosis (FEP)
  - Oral vs LAI risperidone
  - Relapse and/or Exacerbation Rates:
    - 33% for PO group
    - 5% for LAI/IM group
- **Study 2 (Schreiner et al):**
  - Up to 24mos
  - 352 people with early psychosis (1-5yrs)
  - Oral meds (aripiprazole, haloperidol, olanzapine, quetiapine, paliperidone ER, risperidone) v LAI paliperidone
  - Relapse
    - 20% for PO group
    - 14.8% for LAI group
- **Study 3 (Kane et al):**
- 19 clinics assigned to encourage LAI Aripiprazole vs 20 Clinics TAU
  - 489 people total
    - Aripiprazole LAI Group: average delay to first hospitalization 613.7 days
    - Clinicians' Choice Group: average delay to first hospitalization 530.6 days
    - 44% reduction in the incidence rate of first hospitalization

- Subotnik KL, Casaus LR, Ventura J, et al. Long-acting injectable risperidone for relapse prevention and control of breakthrough symptoms after a recent first episode of schizophrenia: a randomized clinical trial. JAMA Psychiatry. 2015;72(8):822–829.
- Schreiner A, Aadamsoo K, Altamura AC, et al. A randomized, active-controlled rater-blinded 2-year study of paliperidone palmitate versus investigators' choice of oral antipsychotic monotherapy in patients with schizophrenia (prosipal). Poster LP-01-013. Poster presented at the 29th International College of Neuropsychopharmacology (CINP) World Congress of Neuropsychopharmacology; June 22–26, 2014; Vancouver, British Columbia, Canada.
- Correll CU, Lauriello J. Using Long-Acting Injectable Antipsychotics to Enhance the Potential for Recovery in Schizophrenia. *J Clin Psychiatry*. 2020;81(4):MS19053AH5C. Published 2020 Jun 30.
- Kane JM, Schooler NR, Marcy P, et al. Effect of Long-Acting Injectable Antipsychotics vs Usual Care on Time to First Hospitalization in Early-Phase Schizophrenia: A Randomized Clinical Trial [published correction appears in JAMA Psychiatry. 2020 Dec 1;77(12):1310]. *JAMA Psychiatry*. 2020;77(12):1217-1224.

“Best” Medication

- Clozapine (Clozaril)
  - Only antipsychotic to outperform other antipsychotics in head-to-head trials in young people.
  - Why isn’t everyone on Clozapine?
  - Risk of Agranulocytosis (decreased production of white blood cells); requires weekly blood draws for 6mos, every-other week for next 6mos; monthly thereafter.
  - ANC + WBC = www.clozapinerems.com
  - Risk of seizures.
  - Risk of weight gain.



Quick Review, Side-Effects of Dopamine Receptor Blocking Agents…

- Movement Disorders
  - Akathisia – extreme restlessness and need to pace
  - Acute Dystonic Reactions – writhing movements of mouth, lips, tongue, extremities
  - Occulogyric Crisis – sustained eye movements usually in the upward position
  - Tardive Dyskinia – repetitive involuntary movements like grimacing, smiling, lip smacking, eye blinking
  - Parkinsonism
- Metabolic Disruption
  - Weight Gain (every visit)
  - Glucose Intolerance (HBA1c and/or fasting glucose baseline, 6mos, 1yr)
  - Hypercholesterolemia (fasting labs baseline, 6mos, 1yr
  - Hypertriglyceridemia (fasting lab baseline, 6mos, 1yr

Be systematic: Monitoring

- PERSONAL & FAMILY HISTORY: baseline and yearly
- LIFESTYLE MONITORING: every visit
- HT, WT, BMI percentile: every visit
- SOMNOLENCE/SEDATION: every visit
- SEXUAL SYMPTOMS/SIGNS: baseline, during titration & every 3mo
- BP, PULSE: baseline, 3mos and every 6mos thereafter
- FASTING GLUCOSE, LIPIDS: baseline, @3mos, and every 6-12mos thereafter and with every med switch
- LFTS: baseline, @3mos, and every 6-12mos thereafter
- AKATHISIA: baseline, titration, 3mo, then q12mos (this can be measured with the Barnes Akathisia Scale)
- DYKINESIA/TD: baseline, q3mo (this can be measured with the Abnormal Involuntary Movement Scale, AIMS).
- CBC, BMP: On case by case basis except on Clozapine
- PROLACTIN: 3mos-6mos, 1yr on Risperidone or if symptomatic
- EKG: If on Ziprasidone, during titration and at max dose.

We think about low dose treatment with the possibility of tapering and discontinuing in 6-24 months. Why?

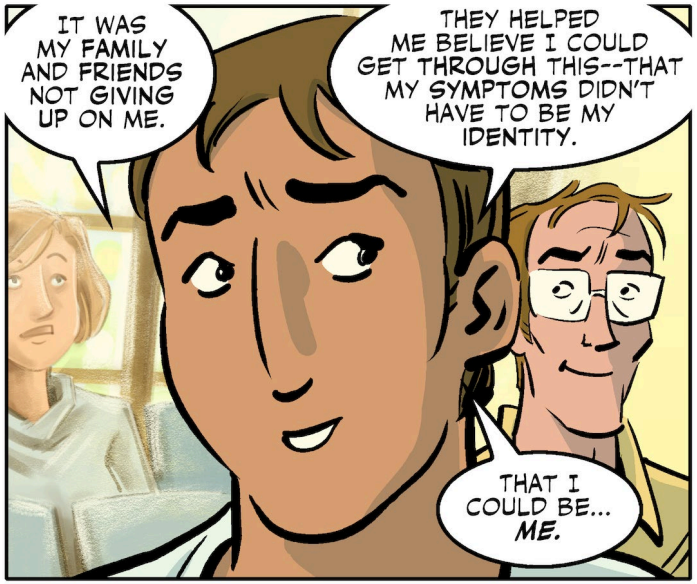
- According to a study published in *JAMA Psychiatry in 2013*, on 7-year follow-up…
  - Of 103 patients out of an original study of 128
  - 40.4% of the reduction/discontinuation (DR) group versus 17.6% of the maintenance therapy (MT) group had achieved recovery.
  - Initial relapse rates in the DR group were twice as high over the first three years, then evened out.
  - This suggests that not being "scared away" by relapses precipitated by reductions or discontinuations but instead providing psychosocial support through these, resuming medications, but with an eye on the DR strategy may be most prudent.
  - It should be noted that reduced Duration of Untreated Psychosis (DUP) predicted a better an overall improved outcome.

Wunderink L, Nieboer RM, Wiersma D, Sytema S, Nienhuis FJ. Recovery in remitted first-episode psychosis at 7 years of follow-up of an early dose reduction/discontinuation or maintenance treatment strategy: long-term follow-up of a 2-year randomized clinical trial. *JAMA Psychiatry*. 2013;70(9):913-920

Most People Do Well!

- 2014 study in Scotland, only 12.6% individuals with acute and transient psychotic disorders (loosely equivalent to DSM5 brief psychotic disorder and schizophreniform disorder) developed schizophrenia within 3-5 years

- 2001 examination of 15 and 25-year international follow-up data showed that 60-80% of people with FEP went on to enjoy functional recovery or significant improvement



Harrison G, Hopper K, Craig T, et al. Recovery from psychotic illness: a 15- and 25-year international follow-up study. *Br J Psychiatry*. 2001;178:506-517.

Queirazza F, Semple DM, Lawrie SM. Transition to schizophrenia in acute and transient psychotic disorders. Br J Psychiatry 2014;204:299-305.

So, we discussed six main points:

1. Psychosis is a generic term for a break from shared reality, with schizophrenia consisting of 2/5 “DHS BeNs” symptoms for at least 6mos.
2. Few people announce: “I’m having early warning signs of psychosis” and instead most offer vague complaints that seem more consistent with other life troubles.
3. A good history and using tools like the Psychosis Questionnaire Brief (PQB) can assist in early detection and linking to coordinated specialty care. Visit www.psychosisscreening.org for more information.

Three more things we discussed…

4. To find out the intake coordinator for the EASA Program in your region/the young person's county of residence, visit: www.easacommunity.org

5. Coordinated Specialty Care programs like EASA are focused on functional recovery and utilize a multi-disciplinary team model with individual therapy, family support including multi-family groups, and sometimes medication treatment (but that is NOT necessary to see the psychiatric specialist).

6. There are 7 ways PCPs are tremendously helpful:

- Early referral and linking to care
- Collaborating to complete work-ups when indicated
- Encouraging families that recovery is possible
- Occasionally addressing treatment gaps (continuing medications)
- Helping monitor and address side-effects*
- Supporting young people, families, and EASA providers together as challenges of increased risk for:
  - A more sedentary lifestyle
  - School dropout
  - Early cardiovascular disease / metabolic syndrome*
  - Smoking and other substance use disorders
  - Suicide and Self-Harm

We're In This Together…

Please check out additional resources at www.easacommunity.org

If questions arise, feel free to contact OPAL

M-F 9-5, 855.966.7255

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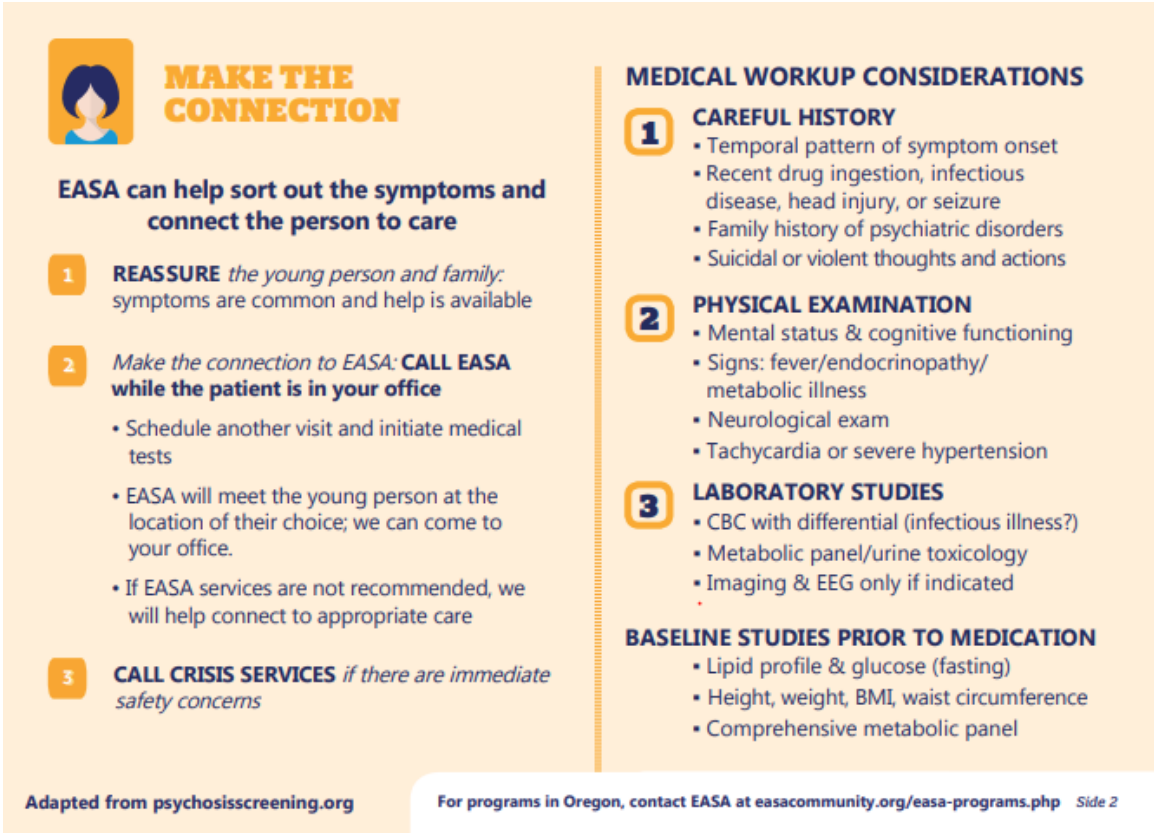

MAKE THE CONNECTION

EASA can help sort out the symptoms and connect the person to care

1. **REASSURE** *the young person and family:* symptoms are common and help is available
2. *Make the connection to EASA:* **CALL EASA while the patient is in your office**
   - Schedule another visit and initiate medical tests
   - EASA will meet the young person at the location of their choice; we can come to your office.
   - If EASA services are not recommended, we will help connect to appropriate care
3. **CALL CRISIS SERVICES** *if there are immediate safety concerns*

Adapted from psychosisscreening.org

MEDICAL WORKUP CONSIDERATIONS

1 CAREFUL HISTORY
- Temporal pattern of symptom onset
- Recent drug ingestion, infectious disease, head injury, or seizure
- Family history of psychiatric disorders
- Suicidal or violent thoughts and actions

2 PHYSICAL EXAMINATION
- Mental status & cognitive functioning
- Signs: fever/endocrinopathy/ metabolic illness
- Neurological exam
- Tachycardia or severe hypertension

3 LABORATORY STUDIES
- CBC with differential (infectious illness?)
- Metabolic panel/urine toxicology
- Imaging & EEG only if indicated

BASELINE STUDIES PRIOR TO MEDICATION
- Lipid profile & glucose (fasting)
- Height, weight, BMI, waist circumference
- Comprehensive metabolic panel

For programs in Oregon, contact EASA at easacommunity.org/easa-programs.php *Side 2*

Special thanks to EASA Medical Outreach Project Manager, Susan Foley for her research and steadfast work on the EASA Primary Care Toolkit.