Adherence in Children and Teens with Diabetes

Kristy Dennis, MSW, LCSW
Jessica Tomasula, PhD

We have no financial relationships with commercial interests that pertain to the content presented in this program.

Learning Objectives

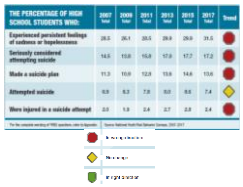
1. Learn common barriers to adherence
2. Learn ways to assess patient/family motivation
3. Learn strategies to improve patient/family motivation

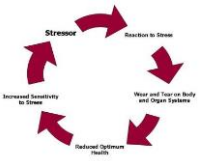
Common Barriers to Adherence

- Significant life distractions or other pressing priorities
- Does not experience or understand the problem or unable to appreciate the benefits associated with change
- Cost, inconvenience and undesired trade offs (ex. side effects)
- Confidence levels informed by past failure
- Lack of support by others
- No immediate payoff
- Burnout
- Cultural differences
- Other medical or mental health conditions

Common Barriers to Adherence

- Untreated mental health conditions, such as depression, can exacerbate or lead to the development of chronic health conditions





- 2nd leading cause of death among ages 10 to 24 in 2016

Knowledge ≠ Action

- How do we inspire our patients and families to change?
- Motivational Interviewing (MI) is alternative method to "prescriptive" medicine
  - ❖ MI is a particular kind of **conversation about change** (counseling, therapy, consultation, method of communication)
  - ❖ MI is **collaborative** (person-centered, partnership, honors autonomy, not expert-recipient)
  - ❖ MI is **evocative** (seeks to call forth the person's own motivation and commitment)

Motivational Interviewing **IS**:

- Founded on:

- Based in respect that the patient/family is the expert on themselves and their own internal resources to change (with or without you)
  - Personal values, motivations, abilities, and skills

Motivational Interviewing **IS NOT**:

- A treatment for all problems
- A specific type of psychotherapy
- A directive approach
  - Goal-oriented; help to guide them to maximize their potential for change
- Easy to learn!
- Many reviews indicate statistically significant effects of MI in relation to health outcomes
  - Copeland and colleagues (2015) systematic review MI spirit is possible mechanism for evoking change talk which is linked to improved health outcomes

Spirit of Motivational Interviewing

Partnership (instead of Confrontation)
- MI is a collaborative partnering with patients
- Ask for permission
- See the patient as the expert on themselves

Acceptance (instead of Disapproval)
- Client is responsible for change which arises from within
- Respect patient autonomy – whether or not they change
- Inform and encourage choices without judgment

Spirit of Motivational Interviewing

Compassion (instead of Judging)
- Genuine care and concern
- Understand and validate the struggle

Evocation (instead of Education)
- Evoking the patient's own motivation and resources for change
- Trust the patient to be motivated for something
- Asking versus telling
- Avoid expert trap

Assessing Motivation: Open-Ended Questions

- How does your diabetes affect you most day to day?
- What's getting in the way of you caring for yourself/ your diabetes?
- What's most important right now?
- What's going on?
- How would you like things to be different?
- How do you take this medication?
- What is your understanding about how this medication works?
- What are you feelings about your ____ (diabetes, medication adherence, weight, etc…)
- If you decided to do it, how would you go about it?
- What is one thing you might think about trying?

Assessing Motivation: Scaling

- Scaling Importance

  On a scale of 0 to 10, with 10 being very important, how important is it for you to change?

  0 1 2 3 4 5 6 7 8 9 10
  Not at all — Somewhat — Very

- Scaling Confidence

  Extremely Unlikely 0 1 2 3 4 5 6 7 8 9 10 Extremely Likely

- Scaling Readiness to Change

Traps That Promote Disengagement

- Assessment Trap: interviewer asks questions and patient answers them
- Expert Trap: telling patients what they need to do
- Premature Focus Trap: trying to solve their problem before you have established a working collaboration and negotiated common goals.
- Labeling Trap: diagnostic labeling - "You have diabetes", "you're in denial". Comes from us believing there is a benefit in people "accepting" what they are/have.
- Chat Trap: making "small talk". May seem like a friendly opener and can be a good ice breaker but not likely to be helpful beyond modest doses.

Promoting Engagement

- Look for what you can genuinely appreciate and comment positively about, even something simple, and for other ways to help the patient feel welcome, especially for tough, repeat patients.
  - Who does this well?
- How does the person think you might be able to help? Provide the patient with some sense of what to expect from you.
- Offer hope. How do you do that? Let's hear it!
  - Why did you get into this discipline?

Adolescents and Adherence

MI requires a young person to take responsibility and be a part of the decision to change (or not).

- A young person's cognitive processes differ from those of adults will help you to have these conversations.
  - Adolescents with less cognitively developed resources will need **discussions tailored to short-term and concrete changes**. (11-12 years)
  - **Older adolescents** and/or those with more developed cognitive processes may benefit from conversations targeting **longer-term goals and values**.

Slide credit: CCNC

Friendly Reminder

- It is developmentally appropriate for teenagers to resist other's input or advice.

Motivational Interviewing

MI Principles	MI Methods	MI Processes
Express Empathy	Open-Ended Questions	**Engaging**-empathic listening • Build Rapport • Using OARS
Develop Discrepancy	Affirmations	**Focusing**-targeting change • Agenda mapping • "Elicit-Provide-Elicit
Roll with Resistance	Reflective Listening	**Evoking**-patients ideas • Pro and cons • Agenda Mapping
Avoid Argumentation	Summaries	**Planning**-setting up structured change
Support Self-Efficacy	Elicit Change Talk	

Develop Discrepancy

- To help the patient see the contrast between what they want and what they do
- A discrepancy between present behavior and important personal goals or values will motivate change
- Developing discrepancy creates dissonance (that uncomfortable feeling you get from continuing the current behavior)

Develop Discrepancy

- Repeat back Pros and Cons stated by patient

"So, on one hand you want to reduce your risk of ending up back in the hospital for DKA, but on the other hand you don't like to check your blood sugar or give yourself injections."

Develop Discrepancy

- Ask questions about behaviors that do not support goals set by the patient

"Taylor, I am concerned that your insulin refill has been ready for about two weeks. We discussed last time that you don't want to end up back in the hospital with a diabetes crisis. What are your thoughts about how this might affect that goal?"

But What If They Still Don't Change??

Stages of Change

Stage	Description	How to intervene
Pre-contemplation	Not even thinking about changing May not see behavior as a problem	• Find out patient/family's agenda --what's important to him/her? • Give positive feedback, strengths based • Express concern & keep the door open • Use non-coercive education
Contemplation	Willing to consider the possibility of change Often highly ambivalent On the fence	• Normalize ambivalence • Stay neutral OR weigh in on the side of NO change -- validate that change is hard • Help patient see the gap between goals & current behaviors • Explore pros & cons
Preparation	Balance is finally tipped in favor of change. Not all ambivalence has been resolved, but ambivalence no longer represents an insurmountable barrier to change. Most individuals in this stage will make a serious attempt to change behavior in near future. Individuals in this stage appear to be ready and committed to action.	• Begin process of planning for change --ask about barriers - ensure goal is realistic • Consider small, concrete steps • Discuss previous attempts -- what worked before? • Ask about social supports • Offer a menu of options if patient/family is agreeable
Action	Plan is put into action Steps are made	• Discuss right-sized steps (minimizes possibility of failure) • Explore "how is this working?" & be prepared to problem-solve • Explore social supports • Refine plan if necessary
Maintenance	New behavior is becoming firmly established	• Maintain supportive contact • Affirm his/her resolve & self-efficacy • Ask about triggers or develop "fire escape plan" -- what happens if temptations to go back to old behavior arise?

Other important strategies for promoting adherence

- Natural supports
  - Grandparents
  - Aunts/Uncles
  - School staff like teachers or coaches
- Community support
  - Community Care
  - JDRF
  - Diabetes groups (Type Everyone) / Dia-buddies
  - www.childrenwithdiabetes.org
  - www.beyondtype1.org
- The Pediatric Endocrinology Team (MDs, CDEs, etc.)

Other important strategies for promoting adherence

- Met the patient/family where they are
- Have realistic expectations
- Set small achievable goals (baby steps)
- Praise the progress
- Empathize with the patient/family re: their experience with chronic illness
- Understand that the chronic illness is only a piece of the puzzle

Case Example 1

- A 17 yr old African American female with a family history of diabetes (including one parent currently experiencing long term complications - vision disturbance)
- Parents have separated, which resulted in patient and parent being displaced from their home
- Patient has had an elevated A1c of >14% (for the past several years)
- Patient is active on the cheerleading team at school and has been enrolled in the Early College program at her high school (very ambitious about reaching her academic and long term professional goals)
- Some inconsistency with f/u to clinic visits and inconsistency with checking BG

Case Example 2

- A 15 yr old African American male with a family history of Type 2 diabetes (including his maternal grandmother who is his primary care giver and his 2 siblings)
- Very Challenging Social Dynamics
  - Primary care provider is NOT the legal guardian
  - Staff has been told of substance abuse history for the biological mother (and legal guardian)
  - Patient and his family (older sibling and grandmother have moved several times over the past 2 years)
  - Some inconsistency with f/u to clinic visits and inconsistency with checking BG

Case Example 3

- 4 yr old female, one of 4 members of a refugee family from Iraq
- Family only speak Arabic
- They have recently been transitioned out of the refugee program they were a part of upon arrival to the United States
- Low SES (due to language and job skills of parents); insurance barriers while waiting for Medicaid approval
- Some inconsistently with attending scheduled visits due to cultural differences

Case Example 4

- 8 year old male with Type 1 Diabetes and confirmed diagnoses of ADHD and ODD
- He is the oldest of 3 children and mom expects him to be more independent with managing his diabetes
- He has previously received counseling treatment for his ADHD and ODD
- On medication for ADHD (Vyvanse and Risperdal)
- Recently switched schools and the school nurse is Very involved

Case Example 5

- 15 year old Caucasian female
- She has reached year 4 in this diagnosis of Type 1 Diabetes
  - Now refusing to check is BG, but providing false readings to his parent when asked
  - Taking Lantus nightly
  - "Guesstimating" how much insulin to give at meals (as he does not always carb count and thinks he has a rough guess of how high his BG really is)
- She has endorse low mood for the past several weeks and stated she has lost interest in volleyball (presently her favorite extracurricular activity.

References

- Bean, M., et al. (2015). Motivational interviewing targeting diet and physical activity improves adherence to paediatric obesity treatment: Results from the MI Values randomiaed controlled trial. *Pediatric Obesity, 10,* 118-25.
- Burke, N., Hellman, J., Scott, B., Weems, C., & Carrion, V. (2011). The impact of adverse childhood experiences on an urban pediatric population. *Child Abuse & Neglect, 35,* 408-413.
- Copeland, L., McNamara, R., Kelson, M. & Simpson, S. (2015). Mechanisms of change within motivational interviewing in relation to health behavior outcomes: A systematic review. *Patient Education and Counseling, 98,* 401-411.
- D'Argenio, A., Mazzi, C., Pecchioli, L., Di Lorenzo, G., Siracusano, A., & Troisi, A. (2009). Early trauma and adult obesity: is psychological dysfunction the mediating mechanism. *Physiology & Behavior, 98,* 543-6.
- DiClemente, C. and Prochaska, J. (1998). Toward a comprehensive, transtheoretical model of change. In Miller, W. and Heather, N. (eds), *Treating Addictive Behaviours.* Plenum Press, New York.
- Fuemmeler, B., Dedert, E., McClernon, F., & Beckham, J. (2009). Adverse childhood events are associated with obesity and disordered eating: results from a U.S. population-based survey of young adults. *Journal of Traumatic Stress, 22,* 329-333.
- Garvey, K., et al. (2012). Health care transition in patients with type 1 diabetes: Young adult experiences and relationship to glycemic control. *Diabetes Care, 35,* 1716-22.
- Gayes, L. & Steele, R. (2014). A meta-analysis of motivational interviewing interventions for pediatric health behavior change. *Journal of Consulting and Clinical Psychology, 82,* 521-535.
- Gunstad, J., et al., (2006). Exposure to early life trauma is associated with adult obesity. *Psychiatry Research, 142,* 31-7.
- Hirshkowitz, M., et al., (2016). National Sleep Foundation's sleep time duration recommendations: methodology and results summary. *Sleeping Health, 1,* 40-43.
- Kann L, McManus T, Harris WA, et al. (2018). Youth Risk Behavior Surveillance—United States, 2017. *MMWR Surveillance Summary, 67,* SS-8.
- Miller, W. & Rollnick, S. (2013). *Motivational Interviewing: Helping people change.* New York, NY : The Guilford Press.
- Hoyt, L., Maslowsky, J., Olson, J., Harvey, A., Deardorff, J., & Ozer, E. (2018). Adolescent sleep barriers: Profiles within a diverse sample of urban youth. Journal of Youth and Adolescence. https://doi.org/10.1007/s10964-018-0829-2
- Naar-King , S. & Suarez, M. (2011). *Motivational interviewing with adolescents and young adults.* New York, NY : The Guilford Press.
- National Child Traumatic Stress Network (n.d.). *What is child trauma?* Retrieved from https://www.nctsn.org/what-is-child-trauma/about-child-trauma on September 12 , 2018.
- Resnicow, K., et al. (2016). Advances in Motivational Interviewing for pediatric obesity, *Pediatric Clinics of North America, 63,* 539-562.
- Paruthi, S., et al. (2016). Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. *Journal of Clinical Sleeping Medicine, 12,* 785.
- Prochaska, J. and DiClemente, C. (1983) Stages and processes of self-change in smoking: toward an integrative model of change. *Journal of Consulting and Clinical Psychology,* 5, 390–5.
- Stanger, C., et al. (2013). A multicomponent motivational intervention to improve adherence among adolescents with poorly controlled type 1 diabetes: A pilot study. *Journal of Pediatric Psychology, 38,* 629-637.