



# Diabetes Self-management Education and Support: Tips, Tools, and Technology



During this Twitter chat we posed 10 questions on Diabetes Self-management Education and Support: Tips, Tools, and Technology. Healthcare providers who engaged in the chat shared their learnings, insights and teaching tips. We've culled through the hundreds of tweets posted during this chat and below share the tweets the LifeScan Diabetes Institute believes will be most valuable as you transform the diabetes care you deliver.



## How do you define Diabetes Self-Management Education and Support (DSMES)? How often and when should people with diabetes receive the service? What healthcare settings are DSMES being delivered in?

DSMES is defined in 2017 Nat'l Standards published by @aadediabetes and @amdiabetesassn as: ongoing process of facilitating the knowledge, skills, and ability necessary for prediabetes and diabetes self-care as well as activities that assist a person to implement and sustain the behaviors needed to manage his or her diabetes on an ongoing basis, beyond or outside of formal self-management training. Ref: <https://t.co/P3Dt5wASKt> @hopewarshaw

DSMES is a person-centered comprehensive service that can help a person with diabetes learn the skills & knowledge to self-manage their diabetes. These services can be delivered in group classes, individual sessions with a diabetes educator, shared medical appointments, or online classes/videos @zsqquaredmama

DSMES is a foundation, not an outcome. It's a framework to engage, facilitate change, and build partnerships with people with diabetes. Best provided as needed, outside of bricks and mortar facilities and into the hands, devices, and world of people we serve @donnaryancde

In 2015, AADE @AmDiabetesAssn @eatrightpro @NDEP issued a Joint Position Statement to define the 4 key times adults w/ type 2 #diabetes should have DSMES service: 1) at diagnosis, 2) annually, 3) with new complicating factor, 4) transitions in care. Learn more: <https://t.co/pvbVuJtbos> @aadediabetes. I find the Joint Position Statement a strong tool to use with health system administrations. @patadamsgreyt

AADE is in the process of updating the Joint Position Statement with other orgs on the 4 key times to see a diabetes educator. Stay tuned later in 2019 for more information on this critical guidance @aadediabetes

DSMES is delivered in a variety of setting including AADE accredited or @AmDiabetesAssn recognized programs which have met vigorous criteria set by @HHSgov. To help people find a program near them visit <https://t.co/zhgBvv0Qdv>. @aadediabetes

Both @aadediabetes and @amdiabetes are accrediting organizations for coverage of DSMES through @CMSgov. Both orgs publish interpretive guidance to implement National Standards for DSMES. Here's @aadediabetes's: <https://t.co/hVowzF9r2k> @hopewarshaw

Diabetes Self-Management Support (DSMS) refers to the SUPPORT required to implement & sustain coping skills & behaviors needed to self-manage on an ongoing basis. Support assist people to implement and sustain skills and behaviors needed for ongoing self-management @StarlinRPh

Traditional DSMES settings include: hospital outpatient depts, independent clinics, rural health clinics, pharmacies, primary care settings, endocrinology practices, public health departments, federally qualified health centers, home health agencies, and skilled nursing homes @susangweiner

People with diabetes may be covered by their health plan to also receive another related service, Medical Nutrition Therapy (MNT). People with Medicare are covered for this service at diagnosis and ongoing as with DSMES @hopewarshaw. Offering MNT in addition to DSMES services helps programs' bottom lines as well as PWD @lhodgson256

## DSMES has traditionally been provided within hospitals /healthcare facilities but recent trends are expanding where and how DSMES is delivered. How are you, your colleagues, evolving where and how DSMES is delivered?

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I still provide DSMES within the hospital. However, my healthcare system has also invested in technology to help provide diabetes education anytime and anywhere a person can access the internet. By no means does this system replace working with an educator, but it does nicely supplement/reinforce the concepts of care @zsquaredmama

DSMES is increasingly being delivered in a wider array of sites including: private office practices, medical homes, and accountable care organizations @eatingsoulfully. It's delivered in: worksites, pharmacies, barber shops @StarlinRPh. Senior centers, assisted living facilities, home care, via online technologies (telehealth) @lorenadrago. On-site employers sites, YMCA, optometrist, community centers, durable medical equipment companies, faith-based organizations @susangweiner

My healthcare system also has mobile health programs that take DSMES to the person where they live work and pray :-) We have been successfully providing nontraditional DSMES in our home-based community care programs for about 6 years. Care managers trained on AADE7 and Level 1 competencies do a great job! @donnaryancde

It's critical that we find ways to reach PWD where they are, to fit their culture, lifestyle & available resources. The AADE Foundation is currently funding 3 unique programs that utilize DSMES in community-based settings. Learn more: <https://t.co/Dm2vAukW6t> @aadediabetes

This is amazing! Teaching moments occur everywhere! @lorenadrago







## How is the slow but steady evolution to value-based care impacting where and how DSMES is being delivered? What are you observing in your settings?

The transition to value based care underscores the important role of the diabetes educator and the importance of providing DMES (support) as part of new delivery models @lhodgson256

Diabetes educators and DSMES programs collect and report outcomes that relate to not just biometrics but health care utilization and savings. @donnaryancde

The evolution occurs online where there is a larger reach that can cross city and state lines. I have provided online diabetes education and diabetes education on-demand accompanied with short lectures, reading materials for several years @lorenadrage

Community health workers play a critical role in expanding DSMES to communities while reducing barriers like language, distance & resources. Learn more about the role of CHWs in DSMES & diabetes prevention in new guidance from AADE: <https://t.co/XBpGu2XavF> @aadediabetes

I'm pleased to see @AADEdiabetes has embarked on an ambitious effort called Project Vision to position diabetes educators in this rapidly changing healthcare environment. Learn more here: <https://t.co/DQxqkERI1X> @hopewarshaw

## Published research shows DSMES is clinically & cost effective, but other data show the majority of people do NOT get referred to/utilize their DSMES benefits? What's been your experience? What are your BIG IDEAS to overcome barriers?

Private payer and Medicare claims show less than 10% of people with diabetes EVER RECEIVE ANY DSMES or MNT. It's critical that we overcome barriers to improve clinical outcomes and lower healthcare costs @hopewarshaw

PCPs, NPs, PAs & MDs are not always aware of DSMES programs. Educating clinicians on the value of DSMES can increase referrals to programs @susangweiner

Many providers are not aware what a diabetes education program entails, how to refer, or may assume their patients may not want to or can't go. If providers don't promote it, patient may not consider it important @lorenadrago

Providers also need to be educated on the value of DSMES. The Joint Position Statement Toolkit, housed on <https://www.diabeteseducator.org/practice/educator-tools/app-resources/joint-position-statement-toolkit> has a wealth of info educators can use to facilitate the process @eatingsoulfully

In my rural area, isn't so much of a lack of referral, but a lack of access to #DSMES services. We have a monthly class in the offices, but not a comprehensive service. We have also invested in technology to help spread knowledge about caring for diabetes @zsquaredmama

Both Nat'l Standards for DSMES and Joint Statement detail research showing DSMES's cost-effectiveness to reduce hospital admissions and readmissions and lower risk for complications in people with #diabetes @hopewarshaw

Truth. Too many barriers with traditional model, we see many more people when we embed into community where people already are- home, inpatient and acute care settings, free clinics @donnaryancde

Barriers start with making the availability of these services known. I'm dreaming here for a moment...we need PSAs, bill boards, social media advertising and more to get the word out about the value of DSMES and the work of diabetes educators @hopewarshaw

Go where the PWD are. It's comfortable to sit in an office or a classroom where all your resources are, but that doesn't help those who live rurally or are homebound. Expand access through telehealth, online education, and off-site classes @lowaAADE

Here's a link to an @aadediabetes webinar created for DEAP programs. Good info about referrals: [https://www.diabeteseducator.org/practice/diabetes-education-accreditation-program-\(deap\)/National-Standards-for-DSMES-Examples](https://www.diabeteseducator.org/practice/diabetes-education-accreditation-program-(deap)/National-Standards-for-DSMES-Examples) @hopewarshaw I listened to this webinar, excellent recommendations! @lhodgson256

Big idea: selling DSMES to the patients, not prescribers. Medication ads target people/consumers because it works. PWD are unaware of the benefits conferred by DSMES @lorenadrago

## Turning to DSMES content, which approach or framework do you use to cover key topics (eg AADE7, CDC DSMES Toolkit, others)?

I follow the AADE7. As an inpatient educator, the ADA recommends teaching "survival skills." Having the 7 self-care behaviors gives me a great framework for helping to impart the skills and knowledge of self-management of diabetes @zsquaredmama

The AADE7 <https://t.co/MIIQy8La7W> is a great place to start. It serves as a valuable framework. Use a person-centered approach & ask what is most important to the person with #diabetes. Everyone is different! @susangweiner

Asking open-ended questions like Polonsky suggests, "Can you tell me a couple ways that diabetes is driving you crazy?" or "What about managing your diabetes do you find most challenging?" helps me zero in on individual needs

For MNT I use the Academy's 2015 Diabetes Mellitus (DM) Guidelines, the new Nutrition Therapy for Adults with Diabetes or Prediabetes: A Consensus Report (Diabetes Care, May 2019) and the AADE7 Self-Care Behaviors for other topics @eatingsoulfully

I counsel multicultural patients and many have restricted health literacy. Creating materials that address cultural, linguistic and using plain language is essential @lorenadrage

Create ownership. Make it easier to refer. Build bridges. Promote your services. Join the Together 2 Goal campaign. AADE member Valerie Spier shares her top 5 strategies for increasing DSMES referrals. <https://t.co/KMwJoPm51X> @AADEdiabetes

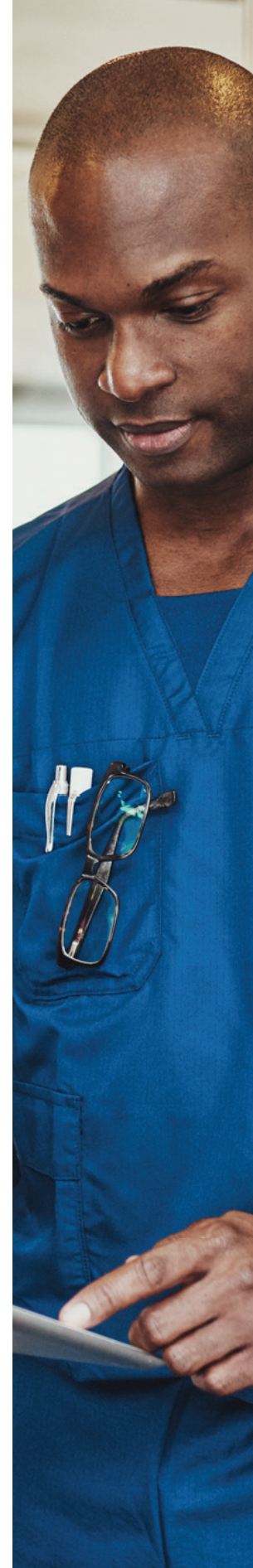
@CDCdiabetes makes available extensive DSMES Toolkit here: <https://t.co/T2ZBciq7BW>. Materials include: accreditation and recognition processes, reimbursement and sustainability, service staffing, delivery models and how to build business case @hopewarshaw

We use hybrid of AADE7 modified for educator skills, sites, persons with diabetes needs, technology...Also expanding topics to include with medication management and technology (cgm). The AADE7 Self-Care Behaviors are a bit underpowered as they stand. Glad they are being updated now @donnaryancde

Regardless of approach used, it's critical for DSMES to be delivered in ways that appreciate that every person with #diabetes comes to this diagnosis with a different presentation. We must work to meet people where they are and offer what they need @hopewarshaw

The AADE7 Self-Care Behaviors help break down DSMES into easy-to-understand key target areas of care. Access additional resources for the AADE7 here: <https://t.co/5xLeX0xJER> HCPs can also access a variety of other care tip sheets at <https://t.co/lui5aaEyKA> @AADEdiabetes

@LifescanDI has an excellent on-demand webinar by Polonsky, "Engaging the Disengaged: Strategies for Promoting Behavior Change in #Diabetes." Well worth the watch! <https://t.co/oPGS4B7WUa> @hopewarshaw



## One of the AADE7 self-care behaviors is monitoring. What are key educational concepts, tips, and “nudges” you cover on meaningful monitoring for people with diabetes who require insulin?

Assess a person's readiness to learn. There is a high level of anxiety associated with a diagnosis of diabetes. Use non-judgmental language & listen before providing education and advice @susangweiner

We are very excited about the advancement of Continuous Glucose Monitoring & how smart the Self-Monitoring Blood Glucose meters have become to help people and their providers look at pattern of highs and Lows @StarlinRPh

I see a lot of people who only monitor their blood glucose at the start of their day, yet still wonder why their A1c is up, or why their blood glucoses are tested more often in the hospital. It is a great opportunity to talk about what monitoring at different times of day tells about their diabetes @zsquaredmama

I tell people that not monitoring is like groping in the dark. I reinforce how some symptoms for hypo and hyperglycemia can be the same. Ideally SMBG before meals, at bedtime, when they suspect a low, after treating a low, and before exercise or driving. How do you know when you have arrived if you don't know where you are going? That's what I say @eatingsoulfully

People must also know their bull's eye – what goals are they shooting for? Plus when to take action and what action to take. We must make data meaningful and actionable. @hopewarshaw

I also like to look at monitoring as nothing more than data. I think it also helps to say that to PWD. It's not a judgement & no HCP should be using it as a judgement. Caring for diabetes is hard! Data helps you figure it out @zsquaredmama

Check out AADE's AADE7 monitoring handouts at <https://t.co/3WI05yyFF3> You can also access printable handouts on insulin injection: <https://t.co/xpUvjAEKuK> and insulin pump therapy: <https://t.co/VSiniM4kf6> @AAEEdiabetes

Regardless of how long a person has been diagnosed with diabetes, inquire appropriately about self-monitoring. Assess the need for reeducation, health literacy or financial issues @susangweiner

Gather practical educational concepts, wisdoms and “nudges” culled from our 3/28/19 Twitter Chat on Glucose Monitoring: Guidelines vs. Practice. See this on the right hand corner of @LifescanDI home page <https://t.co/TDvKyDf9FI> @hopewarshaw

Be a mentor. Model the data analysis process you want people with diabetes to use. Demonstrate value of having glucose data to make management decisions by example. Show, don't tell @hopewarshaw

I developed a lesson plan titled the ups and downs of diabetes covering all of the factors associated with glucose fluctuations. I use an analogy of GPS while driving. The GPS guides the driver to know where to go and when he/she arrives. @lorenadrago

If, as an HCP, I want people to monitor, I must ask for and utilize results during visits. This action sends a signal that I value the data and the time it takes to acquire it. We must respect/honor the time it takes to monitor glucose @hopewarshaw. Exactly!! @MalenaNutricion

Speaking of value of having glucose data, the LifeScan One Touch Reveal app recognizes key SMBG patterns and points these out to the user. It can also aid discussions with HCP. HCP can also ask if there have been mgmt. changes





**Studies have provided inconsistent results for glucose monitoring for PWD who DO NOT require insulin. Structured approaches have benefits, once-daily checking has not. How do you navigate through these results?**

When I get beyond the headlines and top lines of publications I realize that when monitoring is implemented with a plan of action, such as paired-testing or mini experiments and (this is important!) valued by HCP, it can be used effectively @hopewarshaw

I've long agreed that SMBG has a low return on investment ROI when not part of a thoughtful, review and learning process for those on and not on insulin @donnaryancde

Ask inquiring questions about the recommendations provided to people with diabetes about monitoring (and subtle messages) being delivered by other HCPs. Consider if they negate the value of monitoring or make valuable use of results during care visits? @hopewarshaw

Structured approaches: checking before & after meals, at bedtime, & sometimes in the middle of the night (7-8 times) for 3-5 days prior to the appointment, trying to include a weekend. This provides a snapshot of glucose levels @zsquaredmama

Checking before & after a favorite meal, or with a new exercise (before, after, and 4-8 hours post exercise) offer insights into how choices change glucose levels @zsquaredmama

AADE joined @JDRF @AmDiabetesAss @TheAACE & others in a consensus statement that identified/defined clinically meaningful outcomes beyond A1C including time in normal glucose range. Learn more: <https://t.co/woBUe712BW> @AADEdiabetes

Studies have shown appropriate use of structured SMBG significantly improves glycemic management & facilitates more timely and aggressive treatment changes in non-insulin treated T2D w/o decreasing well-being. Check out AADE's guidance: <https://t.co/Y6nChVG1xX> @AADEdiabetes



A1c is used too often by HCPs to manage diabetes in absence of SMBG or CGM data. Without glucometric data A1c offers minimal insight beyond an average glucose value over the last couple of months @hopewarshaw

Similar to type 1. I use the GPS analogy and I also focus on how to best utilize the results to optimize management. Paired testing before and after meals can help people understand how the type of food they eat and their portions affect postprandial glucose @lorenadrago

We start with "problem times." if the person feels they have unexplained numbers or struggle with a certain time of day, we'll focus on that area first - looking at meals, meds, activity, work vs non work, etc, until we find a pattern. Checking in pairs helps! @IowaAADE



## What tips, tools and resources have you or colleagues found effective in teaching other AADE7 topics: Taking Medications, Healthy Eating, Being Active and Problem Solving?

Taking Medications: Talk to your pharmacists & schedule Med Check UP! Have your pharmacists set up Synchronized prescription fill with a 1 time pickup and medication review @StarlinRPh

Healthy Eating is one of the most challenging aspects of #diabetes self-care. FYI @amdiabetesasn just published updated "Nutrition Therapy in Adults with Diabetes and Prediabetes Consensus Report" <https://t.co/Mp4TpEKEU0>. INDIVIDUALIZATION is paramount! @hopewarshaw

In general, I get to know person and their "life story" by asking reflective questions in a non-judgmental manner. I also gain insights into topics they most need information or advice about. Make teaching effective by making it meaningful and personalized @hopewarshaw

Problem-solving lends itself well to solving day-to-day management challenges common with diabetes self-management. Make it personal. Use past experiences that have not gone well. Ask what derailed them? Ask how they would manage the same situation differently @hopewarshaw

Healthy coping is an important self-care behavior. Import of emotional well-being in diabetes outcomes has taken center stage. Having and managing diabetes is overwhelming. Help people ID coping strategies that work for them...so many options, important to individualize @hopewarshaw

Find additional tips in AADE's printable handouts available for each of the AADE7 Self-Care Behaviors: <https://t.co/5xLeX0xJER> @AADEdiabetes

When teaching medication I focus on side effects that often scare people. I explain the benefit risk ratio in simple terms and how to address the side effects. Teach them what to expect and what to do and what absolute and relative risk mean @lorenadrago

Always, always, always talk openly about mental health and sexual health. These are 2 commonly ignored topics that can greatly impact a person's life. Don't be embarrassed by them! They're a part of life. Sometimes people struggle with one or both. Help them @IowaAADE

Coping starts before the learning can start in many. We screen for social determinants of health, engagement and mental health before we even talk about the program @donnaryancde



The @LifescanDI website has mini-videos to help answer frequently asked clinical questions here <https://t.co/l43Y2Xu2E6>. Webinars too <https://t.co/BWCH0qP9dt> @hopewarshaw

When I get to do family education, I remind everyone the nutrition & activity recommendations are great for everyone, even little kids. A little reminder that health is a family value & that it is easier to make changes when we all work together @zsquaredmama



## Technology surrounds us. Evidence and recommendations suggest that technology-enabled DSMES has clinical benefits. To what extent are you or colleagues making technology a part of routine DSMES?

I encourage you to view @LifescanDI webinar by @debgreenwood, "Diabetes Digital Health to Support Patient Behavior Change." Now available on-demand <https://t.co/l1zUH3EodL>. Greenwood makes the point that numerous types of technology are transforming healthcare, from remote patient monitoring to artificial intelligence, and use of virtual reality in educational settings @hopewarshaw

Diabetes, food & lifestyle apps may help reduce daily challenges by improving communication with the health care team and care-givers @susangweiner

I also look at apps & services that may provide individualized coaching or virtual lessons that can be done at the person's own pace and time. @zsquaredmama

Podcasts of our educators that provide overviews of the education concept that were covered in class @StarlinRPh

As more PWD use tech – apps, CGM, DIY – HCPs must understand how they can be implemented into practice. AADE's innovative diabetes care technology portal DANA <https://t.co/dQquK6chGb> helps members access product info, best practices, tech news, trainings & more @AADEdiabetes

I use a telehealth platform with an app that facilitates secure video chat and texting, photo food logging and syncing of patients' activity devices @eatsoulfully. I use on-demand videos, social media live segments, webinars, apps are commonly used. Social Media live segments are very popular @lorenadrago

Publication by @debgreenwood et al. details Technology-Enabled Self-Management Feedback loop includes 4 elements: analyzed patient generated data, Individualized education, tailored feedback and 2-way communication <https://t.co/wGGsgrcgro> @hopewarshaw

Use of nutrition and glucose monitoring apps allows HCPs and PWD to achieve several goals: gather info, record data, ID problems and develop solutions, gain understanding, share data and reports. However, people must be willing, and able @hopewarshaw

Healthy eating sounds so easy for the healthy person but it is challenging when there is a disease, medications, treatment from several providers, exercise, check blood sugars, and still work and make a living. @MalenaNutricion Very well said ... important for us all to remember @hopewarshaw

One RCT with n=128 #PWD assessed the clinical benefits of diabetes technology: glucose meter + app + HCP text messages vs glucose meter alone. @jmirpub <https://t.co/e7jzID2GIq>. Authors concluded, this study suggests that real-time availability of patient data and ability to send personalized diabetes-related text messages can assist HCPs to improve glycemic control in between scheduled visits. (Study funded by LifeScan) @hopewarshaw

For a recent deep dive into using nutrition and glucose monitoring apps in diabetes care, check out this @LifescanDI on-demand webinar: Diabetes Digital Health: Nutrition with Liz Beck, MS, RD, CDE. View this at: <https://t.co/qvp0jOxbQ0> @hopewarshaw



## Co-designing DSMES with PWD appears to be a growing trend. Is this an approach you have tried or embrace? If yes, what are key findings or tips for fellow healthcare providers on potential benefits?

According to @AFreshPOVforYou Co-design, defined by IHI (<https://t.co/I3jrsMUE1h>), means involving the person in all aspects of design, from conception of idea, so product meets unmet needs, as defined by the person. Why is Co-design NOT how we have been designing health education programs? There's history of HCPs being "expert" and "knowing what's best." That's changing. We're glad! @hopewarshaw

I recently read a study on this concept. I can definitely see benefits in co-designing DSMES with clients. It's taking patient centered care to the next level and should result in improvements in outcomes – patient satisfaction, retention, etc. @eatingsoulfully

I provide post-it notes or papers asking participants to provide me their burning questions to discuss them in class. Half of the session is used to teach a predetermined topic & address burning questions @lorenadrago

I encourage HCPs to read how @AFreshPOVforYou. They're actively using Co-design in their work to build #diabetes DSMES programs and services. Read here <https://t.co/A0vxsl3pTF> @hopewarshaw

Co-design is great tool for #DSMES & focuses on a person-centered approach. Shifts from process-centered to person-centered. Instead of health care team coming up with ideas to solve problems, co-design involves the #PWD so their needs can be met @susangweiner

Beyond learning from HCPs, according to @AFreshPOVforYou, people with diabetes value shared experience. They want to learn from others living with diabetes. Focus less on numbers, more on emotional health. Read more <https://t.co/AD0xi9yqYf> @hopewarshaw

Having a person who has gone through your program as part of the advisory board allows for input & co-design. It helps to determine if there is an effective education strategy. Co-designing can also help with the need to keep services culturally relevant @zsquaredmama

Starts with appreciative inquiry, what is at the center of what the person needs? HCPs and Diabetes educators have to first ask, listen, consider, clarify, ask again, then build a plan. It's person-centered care in action! @donnaryancde





## Offering “Ongoing Support” is Standard 8 in the DSMES National Standards. What are tips for delivering Ongoing Support? Does peer support play a role?

In Natl Standards for DSMES Ongoing support defined as: “resources that help participant implement and sustain going skills, knowledge, and behavior changes need to manage their condition”  
@hopewarshaw

Optimal support is support that helps the PWD continue in the journey of living with diabetes  
@zsquaredmama

Peer support may offer ongoing support and helpful suggestions from others with similar lived experiences. Consider reaching out to your social network or an in-person peer support group  
@susangweiner

Evidence shows peer support has positive health benefits! AADE helped fund a recent scoping review & gaps analysis of online diabetes communities w/ outcomes tied to lower A1C, improved psychosocial health, behavior change. Misinformation occurred 0-9% of the time. <https://t.co/6h2pijEYwc> @AADEdiabetes

@AADEdiabetes’s interpretive guidance for National Standards for DSMES <https://t.co/hVowzF9r2k> states: it’s vital that people with diabetes select resources or activities that best suite their self-care needs. Sounds like Co-design to me @hopewarshaw

We recommend journaling & then sharing during sessions. Provide support with peers at lunch/break tables at the worksite @StarlinRPh

Peer support communities, both online and in person, can provide PWD an outlet for on-going support, available 24/7 in online communities. Learn more at <https://t.co/Q3FghoID3I>  
@AADEdiabetes

With value of shared experience by people with diabetes it makes sense for DSMES services to partner with, invite in or do programs with people with diabetes involved in peer support and peer support communities. @aadediabetes is able to make these connections for/with you @hopewarshaw

AADE worked with peer support communities, @HopeWarshaw & others to develop an easy-to access handout on how to engage with diabetes-focused, online peer support communities. Learn more in this @lifescanDI article recap: <https://t.co/v8F0sD3jDh> @AADEdiabetes

Following up and not waiting for the client to come back to you! We reach out via phone or email to see how things are going. We invite people back into the supermarket (our DSMES site) if they feel they're struggling @IowaAADE