MindShift – New technology to battle anxiety: application for ASD

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 Autism Spectrum Disorder manifests itself in many different forms. People on the spectrum have challenges with communication, social skills, and sensory regulation; and often do not fit into the modern, fast and changing society. All the above challenges cause lots of anxiety. Symptoms of such anxiety may look mild or severe from the point of view of a neuro-typical peer, but they are real to a person with Autism Spectrum Disorder. As a matter of fact, researchers found that anxiety in autism is higher than anxiety in diagnosed clinical anxiety disorder (Russell, E. & Sofronoff, K., 2005). Therefore, just like many remedies tried and practiced to support young people with ASD with communication, social skills, and sensory regulation, there are some attempts to decrease levels of anxiety in children with ASD (Sung et al., 2011). Also, just as some approaches are based on the involvement of people and scenarios in one-on-one or group settings, more electronic devices are being used which, with initial adult support, give children more independence skills thanks to rapid development of technology.

 Apple’s iPad is one of the tools that was released only on April 3, 2010 (iPad, Wikipedia), and many apps (applications) have been developed for it to meet ASD needs. Apps have different quality and range in price. Some are made to copy the more bulky, existing means of support, such as some communication tools as seen in the EPSE 449 lecture on Augmentative and Alternative Communication - AAC (Smith, L., 2013, July 10). Some are brand new in technology and application. Autism and anxiety are not automatically linked so far in contemporary research. However, the signs of anxiety-displaying fears, phobias, and panic attacks in autism are very similar – if not a little stronger – than in the anxious neuro-typical people. Therefore, it is logical to assume that finding a useful app dealing with anxiety issues may be helpful to high functioning, anxious youth on the Autism Spectrum. It is very possible that I have found such an application. It is called MindShift.

 MindShift is a brand new program developed for iPad and Android technology in May of 2013. “The app was developed as a collaboration between Anxiety BC and BC Mental Health and Addiction Services” (BC School Counsellors Conference, 2013). As new as it is, it has not been subjected yet to extensive research; however, that may come as well since “Happitique, a mobile health solutions company, recently announced the launch of its Health App Certification Program – a voluntary program designed to help clinicians and patients easily identify apps that are credible and safe” (Lippman, H., 2013, p. 367). Helen Lippman further suggests that this type of app has to be developed by “a medical society, federal agency, or prestigious medical school”(Lippman, H., 2013, p. 367), definitely not by some unknown source. MindShift has been developed by two prestigious companies, one independent, one government-run with a group of qualified people who interviewed a number of young people with anxiety to make sure that the app would meet their needs. Michelle Horn, M.A. in Public Health from the University of Alberta and Stephanie Gold, M.A. in Counseling Psychology from the University of British Columbia were two of the team members developing MindShift and will speak about the program at the Vancouver BC School Counsellors Conference on October 24-25, 2013. Their topic will be “Addressing Anxiety in Youth: The New MindShift App and Other New Resources for Educators”(BC School Counsellors Conference, 2013). The plan is to introduce the program to students in school settings and beyond. Just like in the medical field, anxiety-targeting apps such as Breathe2Relax and Relaxation Techniques are recommended by some doctors (Lippman, H., 2012), MindShift can be used at schools and outside of schools.

Schools provide students with certain stressors such as tests and both regular students and students on the Autism Spectrum often suffer from test anxiety. Alessandra Grassi and her collegues did research on 75 participants testing the effectiveness of Stress Inoculation Training (SIT) to manage exam anxiety. SIT involves a teaching component of managing anxiety, learning relaxation strategies, and the implementation of new technologies. The tools being used are mobile phones, DVDs, MP3 players, and CDs (Grassi et. al, 2011). MindShift implements the steps of SIT in a way, but with all components and tools in one app. It has some similarities.

Designed by Creative B’stro, MindShift has a number of interesting features and according to Dr. Connie Coniglio of BCMHAS, it can help with “everyday anxiety as well as (test) anxiety, social anxiety, perfectionism, performance anxiety, panic, conflict and worry (Bergen, R., 2013). As a matter of fact these are the seven categories displayed in My Situations icon of the app.

The opening screen of MindShift features nine icons:

1. Anxiety 101
2. My Situations
3. Check Yourself
4. Thinking Right
5. Chill Out Tools
6. Active Steps
7. Inspiration
8. Settings
9. Help



 Anxiety 101 has nine different answers to what is anxiety and what to do with it. My Situations lists the seven anxiety types. The app users can choose which ones of these relate to them and save them. Check Yourself has 14 different anxiety symptoms that can be chosen, saved, and rated from 0 to 10, where 10 represents the highest level of anxiety. Thinking Right has options suggesting good, applicable thoughts to the person using the app. based on the particular type of anxiety. Again, they can be chosen and saved. Chill Out Tools has six options that participants can choose from, taking different amounts of time and using a choice of female or male voice application. The options are divided to three groups:

1. Relaxation Exercises
2. Visualizations
3. Mindfulness Strategies

All can be saved to your personal favourites. All choices go to “My Favourites” when items are saved. Active Steps has various coping strategies – again based on personal preference and maybe even the type of the targeted anxiety. Inspiration has 38 well…inspirational quotes – yes, you can also pick your favourite ones. Settings allows you to save and password protect your entry, which is a good tool when you use a communal iPad. Finally, Help contains Introductory Slideshow, Disclaimer, Emergency Helplines: Kids Help Phone and Crisis Line, and About The App. The app is free and can be downloaded onto iPod or iPhone (or similar Android devices) as well which means it can serve its function in any place at any time. For test anxiety, for example, a student can access the MindShift app for pre-test activities that may help relaxation prior to the test coming up in the next block.

 Are students on Autism Spectrum anxious about tests as much as the neuro-typical students? Absolutely. As a matter of fact, based on the previously mentioned evidence, in some cases, perhaps even more so. Therefore, the MindShift app may be supportive to these students as well. Just to make sure, however, I introduced this app to my 14-year-old daughter. We went step by step discussing each option and she saved them to her favourites. My daughter chose only one of the anxieties to work with: managing worry. This is her biggest anxiety by far. In Check Yourself, she marked the following symptoms of anxiety:

* Finding hard to stop worrying once you start
* Spending a lot of time mind-reading or replaying experiences
* Disliking the unknown, new things, or change
* Stomachaches or headaches
* Tension in your body or sore muscles
* Having trouble sleeping (can’t fall asleep or waking up with mind racing)
* Having difficulty concentrating or focusing
* Feeling restless or on edge
* Avoiding tasks and/or procrastinating

There are more choices, but these are the ones my daughter chose and knowing her well, I know that they are all accurate. Additionally, in Notes for this section she added that she is anxious about barking dogs, laughing people, tests, and rainy weather.

For the next step: Thinking Right, Miriam chose two points for “Dealing with Uncertainty”:

1. Strength comes from believing I can handle the important events in my life, not from trying to control everything.
2. I have supportive people in my life, and I can ask for help if and when I need it.

Then she chose the following steps for “Challenging Worry Thoughts”:

* When my imagination starts to create worst-case scenarios, I will ask myself “How likely is this really?” and “If it did happen, would it be the end of the world? What could I do to cope with it?”
* Instead of worrying , I can take action to solve problems. I can get out of my head and on to my feet.
* I can work on letting go of thoughts that are not helpful or meaningful.
* I will treat my worries like pop-up ads on the internet. I don’t need to give them attention.

Under the Chill Out icon, Miriam enjoyed all the options, but favoured “Out of This World” scenario, in which a choice of man or woman’s voice walks you through slowly leaving the planet and floating away further and further from the problem you leave behind an seeing it from afar – it is very small from that point of view. It is very visual presentation and it belongs to “Visualization” tools.

 For Active Steps, in which one deals with managing worry, Miriam chose:

* Get Physical: Go for a fast walk or a run. Turn up the music and dance. This will help get you out of your head.
* Talk it Out: Talk to someone who understands and can help. Try to choose someone who gives you caring perspective and objectivity, not someone who may only reassure you and/or feed your doubts and fears.
* Make it Boring: Sit down and repeat one worry over and over (and over!) until it feels boring and meaningless.
* Bedtime: Keep paper and pen by your bed and write down any recurring worries that pop-up before bed or during the night, so you don’t have to keep track of them in your head.
* Take Action: If you’re worrying about the situation you can do something about, do it (e.g. instead of worrying about failing a test, start studying).
* Let it Go: If you’re worrying about something you really don’t have control over (e.g. earthquakes), recognize that worrying about it won’t change it.

At this point of the activity you may reflect on your situation and say whether your strategies are working or not. Since Miriam just began working with MindShift and summer is not the most anxious time, she did not have enough time to test the tool yet and check its benefits. She can, however, save her settings and this tool can be used over and over again for other anxious children.

 The next step is to test MindShift with Miriam once the time is right. In her case, use MindShift prior to a walk, during which dogs are anticipated, to prepare Miriam for their barking, and see if it helps her. After some training and multiple trials in different scenarios, I will be able to measure Miriam’s success. If MindShift works, it will be a huge asset to my daughter, if not, it does not mean it will not work for my students in my special education classroom. One person at a time.

 Sarah, one of the bloggers on the Kelly Mental Health website states that she “struggled with panic attacks for years and this app is a fantastic tool because it can come with (her) everywhere, so you can always turn to it” (Kelly Mental Health, 2013). Then the mother of a 13-year-old boy with anxiety disorder found some comments under Thinking Right very helpful, e.g. “Anxiety is time-limited” and “This feeling will pass – it never lasts forever”. All three of her sons and she herself found the Chill Out Tools to be the most effective. Her sons are 6, 10, and 13 years old. Finally she said: “What I like about his app is that no matter what is happening in the house – if I’m cooking dinner, brushing little ones teeth, or if we’re driving in the car – this app is available 24x7 and has very simple meditation techniques that work”(Children’s Health & Wholeness Centre, 2013). One important note that Children’s Health & Wholeness Centre offers is that parents have to explore each new site with their children. Children should not do it on their own. They need to be guided through the process.

 As a high school teacher, it is my responsibility to teach my anxious students to use this app properly and have it available to them (they can download it on their smart phones too free of charge) at the time they need it most. I would not just ask the anxiety-prone child to go ahead and check it out. This applies especially to a child on the Autism Spectrum since the limited social and communication skills may pose a challenge to understanding the program independently. Anxiety is not something you approach lightly. Therefore, my hope is that MindShift will work for my daughter and my students with ASD or just suffer anxiety and need help. Another hope is that if indeed this app is successful and will receive some meaningful research to back it up, then it will reach a larger population and this population will include people with Autism Spectrum Disorder.

Resources

Bergen, Rachel (2013, June 21). *Don’t panic – new app tackles student anxiety*. CTV

British Columbia. Retrieved from http://bc.ctvnews.ca/don-t-panic-new-app-tackles-student-anxiety-1.1336465

BC School Counsellors Conference (2013). Addressing Anxiety in Youth: The New

 MindShift App and Other New Resource for Educators [Online Information].

Retrieved from <http://bcscaconference.ca/index.php?aku=YWN0aW9uPXNob3dfd3MmSUQ9Mjk0MiZ0cmFjaz0>=

Grassi, A., Gaggioli, A. & Riva, G. (2011). New technologies to manage exam anxiety.

 *Studies in health technology and informatics*, *167*, 57. doi: 10.3233/978-1-60750-766-6-57

iPad (n.d.). In *Wikipedia online.* Retrieved from <http://en.wikipedia.org/wiki/IPad>

Lippman, H. (2013). How apps are changing family medicine. *The Journal of Family*

 *Practice*, *62*(7).

MindShift (2013) iPad & Android application. Designed by Creative B’stro.

Review (2013, June 26). Re: MindShift App & Children [blog comment]. Retrieved from

 <http://www.childrenswholeness.com/blog>

Russell, E., & Sofronoff, K. (2005). Anxiety and social worries in children with asperger syndrome. *The Australian and New Zealand Journal of Psychiatry, 39*(7), 633- 633. doi: 10.1111/j.1440-1614.2005.01637.x

Sarah, F.O.R.C.E. Youth in Residence (2013, June 10). MindShift: A new app for youth

 with anxiety [blog post]. Retrieved from

 <http://keltymentalhealth.ca/blog/2013/06/mindshift-new-app-youth-anxiety>

Smith, Laurie (2013, July 10). Augmentative and alternative communication. Lecture conducted in EPSE 449 class in Maple Ridge, BC.

Sung, M., Ooi, Y. P., Goh, T. J., Pathy, P., Fung, D. S. S., Ang, R. P., Lam, C. M. (2011). Effects of cognitive-behavioral therapy on anxiety in children with autism spectrum disorders: A randomized controlled trial. *Child Psychiatry & Human Development, 42*(6), 634-649. doi:10.1007/s10578-011-0238-1