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An Anxiety Toolkit for Adolescents in Vermont

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UNIVERSITY OF VERMONT



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Background

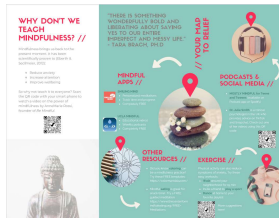
- Rates of anxiety among adolescents are increasing.
- Providers at a rural Vermont (VT) clinic identified the need for an evidence-based process to use when adolescents screen positive for anxiety using GAD-7.

Specific Aims

1. Develop an anxiety toolkit utilizing evidence-based mindfulness and exercise activities that will engage adolescent patients 11-18 years.
 - a. Validate toolkit content.
2. Describe the incidence of adolescent anxiety for patients 11-18 years at a rural pediatric clinic in Windsor County from Sept 1 – Dec 1, 2020.

Materials & Methods

- Retrospective chart review at rural VT clinic
 - Visits Sept 1 – Dec 1, 2020
 - Ages 11-18
 - Appointment type: annual exam, consult, ADHD f/u, depression f/u, med check, new patient well child, and well child exam
- Toolkit development
 - Literature search to identify potential interventions
 - Best EBP: mindfulness and exercise
- Content validation of toolkit by panel of expert reviewers
 - Assessment tool: AHRQ's PEMAT-P
- Review by adolescent volunteers via Qualtrics survey
 - Convenience sample (parents UVM faculty) with subsequent snowball sampling



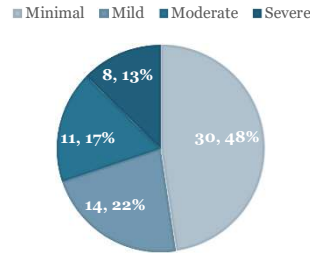
Results

Retrospective Chart Review

- 176 adolescent visits between Sept 1 – Dec 1, 2020
- GAD-7 completed at 125 visits
- 62 visit notes contained a score or anxiety ranking

Note: GAD-7 scoring is as follows:
Minimal anxiety: 0-4
Mild anxiety: 5-7
Moderate anxiety: 10-14
Severe anxiety: 15-21

PATIENT ANXIETY LEVELS



Toolkit Validation

PEMAT-P scores from four expert reviewers.

	Understandability	Actionability
Professor of Exercise Science	100%	100%
High School Teacher	88%	100%
PNP with mindfulness experience	92%	100%
School RN	92%	100%

Adolescent Volunteers (n = 7)

Question	# Somewhat or Strongly Agreed
Q1 - The format of the brochure was eye-catching and interesting to look at.	7 (100%)
Q2 - The brochure increased my understanding of anxiety.	5 (71.4%)
Q3 - Reading the brochure helped me understand the ways that exercise and mindfulness can improve symptoms of anxiety.	5 (71.4%)
Q4 - The resources (videos, apps, links, etc.) in the brochure were easy to access.	7 (100%)
Q5 - The suggested activities in the brochure (meditation, coloring, exercises, etc.) are things that I could easily do at home	7 (100%)
Q6 - I would be interested in doing some of the suggested activities (meditation, coloring, exercises, etc.).	7 (100%)

Question	# Somewhat or Strongly Agreed
Q7 - I already practice mindfulness at home.	3 (42.9%)
Q8 - I already exercise regularly at home.	5 (71.4%)
Q9 - I can see myself trying some of the suggested activities (meditation, coloring, exercises, etc.) if I were feeling anxious.	6 (85.7%)
Q10 - Other people my age would find the brochure interesting.	7 (100%)
Q11 - What would you recommend to improve the brochure? If you thought another format would be more engaging, which program would you suggest? (two participant comments)	<ul style="list-style-type: none"> • Keep the brochure as is. • Impact of mindfulness and exercise on anxiety not thoroughly explained.

Conclusions

1. Based on a literature search, mindfulness and exercise are two EBP interventions that can improve adolescent anxiety and can be implemented at home for free.
2. Prevalence of anxiety, mood disorder, or adjustment disorder among adolescents seen at a rural VT clinic between Sept 1 – Dec 1, 2020, was 39%.
3. Expert reviewers perceived the toolkit to be both understandable and actionable.
4. Adolescent volunteers found the toolkit engaging and believed others their age would find it interesting.

Limitations

- Small sample size for both expert reviewers (n = 4) and adolescent volunteers (n = 7).
- Volunteer sample did not reflect varied age range and gender identity.

Recommendations

- Revise toolkit based on feedback from expert reviewers and adolescent volunteers to improve understandability.
- Evaluate toolkit with a sample of adolescents by implementing at a practice.

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