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## Addressing Adolescent and Young Adult Mental Health During the COVID-19 Pandemic

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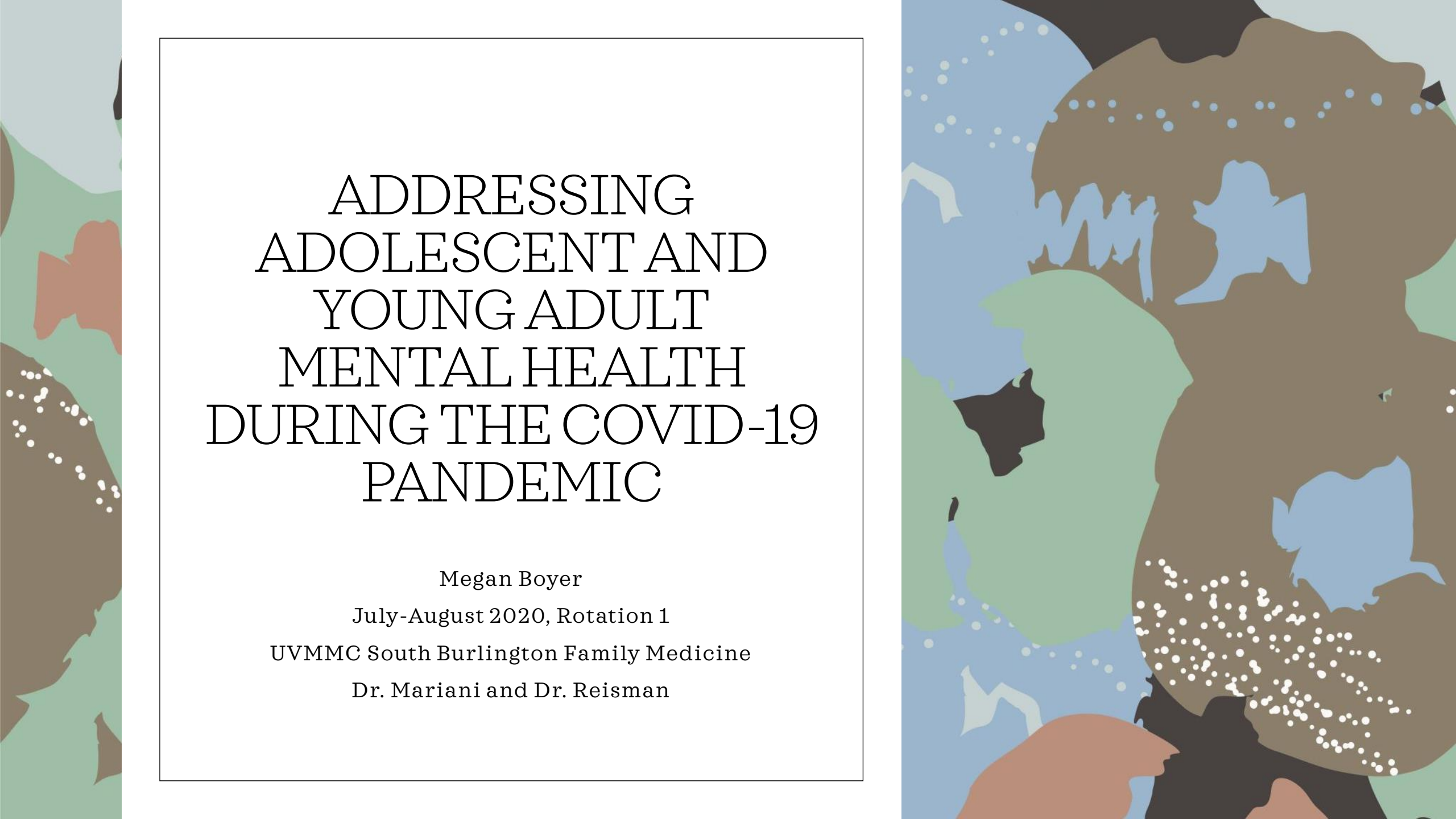
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# ADDRESSING ADOLESCENT AND YOUNG ADULT MENTAL HEALTH DURING THE COVID-19 PANDEMIC

Megan Boyer

July-August 2020, Rotation 1

UVMMC South Burlington Family Medicine

Dr. Mariani and Dr. Reisman

# Problem Identification and Need

## South Burlington Family Medicine

During my first week and a half in my family medicine rotation, I noticed many new patients presenting to establish care. When asked why they wanted to do this now, several voiced their concerns of increasing feelings of depression and anxiety since the start of the COVID-19 pandemic, and the resulting desire to have a primary care physician during this time. Many of the individuals were in their late teens or early twenties. I was surprised by this, as only 56% of Americans in their twenties had a primary care provider in 2015 (1). These encounters made me think about why this trend is occurring, and how the adolescent and young adult population in particular could be affected by the pandemic.

## Mental Health: Why it needs to be a priority.

- 7.6% of individuals 12 years and older in the US have had depression within any 2-week period (2)
- 9.3% of office visits in the US have documented depression in the EMR (2)
- In 2015, 12% of Vermont adolescents in grades 9-12 made a suicide plan (3)
- In 2013-2014, 11% of adolescents between the ages of 12 and 17 in Vermont experienced a major depressive episode and only 49.5% of these individuals received treatment (4)
- In July 2020, 29.6% of Americans age 18 and older were experiencing depression symptoms compared to 6.6% in January-June 2019 (5)
- Research suggests that the social distancing guidelines in place during the COVID-19 quarantine may lead to an increase in mental health issues in children (6)
- According to 2014 NSDUH data, 3 million adolescents have received mental health services from their school within the past year (7), which is an issue with current school closures and hybrid reopening plans.
- The pandemic has limited recreational activities, increased stress on caregivers, created an economic recession which tends to correlate with an increase in domestic violence, restricted health services, and reduced the level of stability that typically comes from school and friends (8)

# Public Health Cost

Table 3. Personal Health Care Spending in the United States by Condition for 2013

Rank <sup>a</sup>	Condition	Assigned Aggregated Condition Category	2013 Spending (Billions of Dollars), \$
	All conditions		2100.1
1	Diabetes mellitus	Diabetes, urogenital, blood, and endocrine diseases	101.4
2	Ischemic heart disease	Cardiovascular diseases	88.1
3	Low back and neck pain	Musculoskeletal disorders	87.6
4	Treatment of hypertension	Treatment of risk factors	83.9
5	Falls	Injuries	76.3
6	Depressive disorders	Mental and substance abuse disorders	71.1
7	Oral disorders <sup>b</sup>	Other noncommunicable diseases	66.4
8	Sense organ diseases <sup>c</sup>	Other noncommunicable diseases	59.0
9	Skin and subcutaneous diseases <sup>d</sup>	Other noncommunicable diseases	55.7
10	Pregnancy and postpartum care <sup>e</sup>	Well care	55.6
11	Urinary diseases and male infertility <sup>f</sup>	Diabetes, urogenital, blood, and endocrine diseases	54.9
12	COPD (chronic bronchitis, emphysema)	Chronic respiratory diseases	53.8
13	Treatment of hyperlipidemia	Treatment of risk factors	51.8
14	Well dental (general examination and cleaning, x-rays, orthodontia)	Well care	48.7
15	Osteoarthritis	Musculoskeletal disorders	47.9

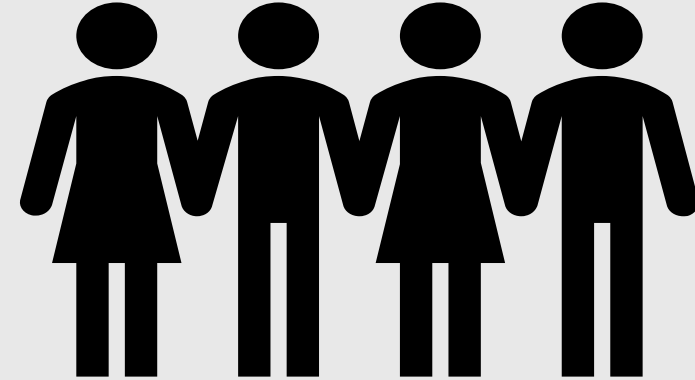
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<https://jamanetwork.com/journals/jama/fullarticle/2594716>

- In the US, depression is the most expensive mental health disorder to treat (9)
- A chart of personal health care spending in 2013 ranked depression the 6<sup>th</sup> most expensive condition overall with \$71 billion spent (9)
- Depression treatment in the primary care setting costs \$800-3500 per life year gained (10)
- The Vermont Department of Mental Health Budget is \$266 million for 2020 to support various programs and facilities (11)

# Community Perspective

Jeremiah Dickerson, MD  
*Child Psychiatrist at UVMMC*



- ❖ In terms of young adults with telehealth, the change has been largely positive. They're so savvy with this technology and not coming into the office frankly makes it easier for some of them to open up. After everything is said and done, hopefully there will still be flexibility so if they want to continue to see their provider this way, they can.
- ❖ There's a certain population that did well in remote learning for school- these are the kids that have historically struggled in the school system. They received all of the academics they could tolerate without being forced to socialize in the cafeteria or go to gym. Extroverted teenagers had a harder time; they couldn't understand why they had to follow the social distancing guidelines and it was hard for parents to set those rules for kids.
- ❖ People tend to worry about false positive rates with universal screening, but the benefits outweigh the risks. If you're asking anxiety and depression questions at the same frequency that you're taking blood pressure, you're communicating that they are just as important as blood pressure.

# Community Perspective

Sara Pawlowski, MD

*Psychiatrist at South Burlington  
Family Medicine*

- ❖ For children, if you take out school and play, you're losing two major purposes of life. We have communities that don't necessarily support family function, and children who need routine. We've begun to rely on schools for a lot of structure, so that's a huge loss. People need milestones in their lives like socialization events and we don't have those right now.
- ❖ There's not great data to do counseling pre-symptoms as prevention for mental health. On the local front- be a supportive parent, understand regression is normal to some degree, and recognize that it's normal to react to stress in different ways.

Luke Dorfman, M.Ed.

*Teacher at Winooski High School*

- ❖ One structure we relied on during the pandemic was an advisory system where there were students I checked in with about health and wellbeing. From those conversations, I learned about the wide range of experiences students were having with the transition to remote learning. Some enjoyed more time at home with family, while many struggled with more stress and anxiety from the pressure the pandemic was placing on themselves and their families. A lot of them relied on various apps like Snapchat and Instagram to stay connected with peers.
- ❖ There are a lot of students at our school who have experienced significant trauma in their lives. Routine is typically helpful for people who have experienced trauma. Having so much uncertainty all around them day to day, I wonder what impact that'll have. How do you build community in an environment where distancing is required? It's a question I've been thinking about a lot.

# Intervention and Methodology

Identified all individuals between the ages of 13 and 25 with appointments for one week



Printed and labeled questionnaires for these individuals and distributed to nursing staff for administration during intake



Interpreted PHQ-9 scores and examined qualitative responses

**Patient Health Questionnaire (PHQ-9)**

Patient Name: \_\_\_\_\_ Date: \_\_\_\_\_

	Not at all	Several days	More than half the days	Nearly every day
1. Over the <i>last 2 weeks</i> , how often have you been bothered by any of the following problems?				
a. Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Trouble falling/staying asleep, sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Feeling tired or having little energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Poor appetite or overeating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Feeling bad about yourself or that you are a failure or have let yourself or your family down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Trouble concentrating on things, such as reading the newspaper or watching television.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Moving or speaking so slowly that other people could have noticed. Or the opposite; being so fidgety or restless that you have been moving around a lot more than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Thoughts that you would be better off dead or of hurting yourself in some way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?				
	Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

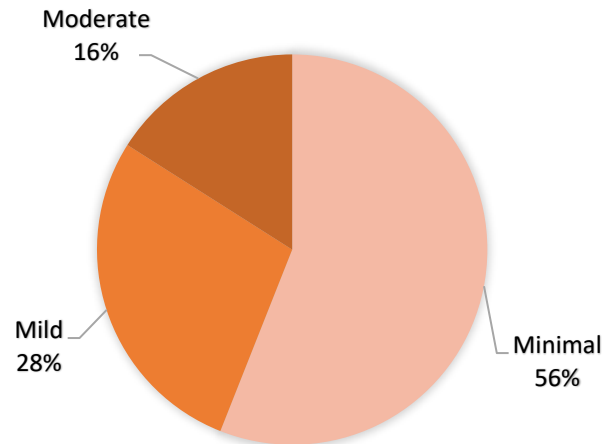
**Additional questions to have patient answer:**

- 1) Since the start of COVID-19 in mid-March, how often have you felt lonely or isolated?
  - a. Not at all
  - b. Several days
  - c. More than half the days
  - d. Nearly every day
  
- 2) Do you feel like COVID-19 has impacted your mental health, and if so, how?

Questionnaire consisted of the standard PHQ-9 and two additional questions about COVID-19. The focus on loneliness in question 1 stems from a recent study where loneliness was found to have an association with mental health issues, specifically depression (6).

# Response Data

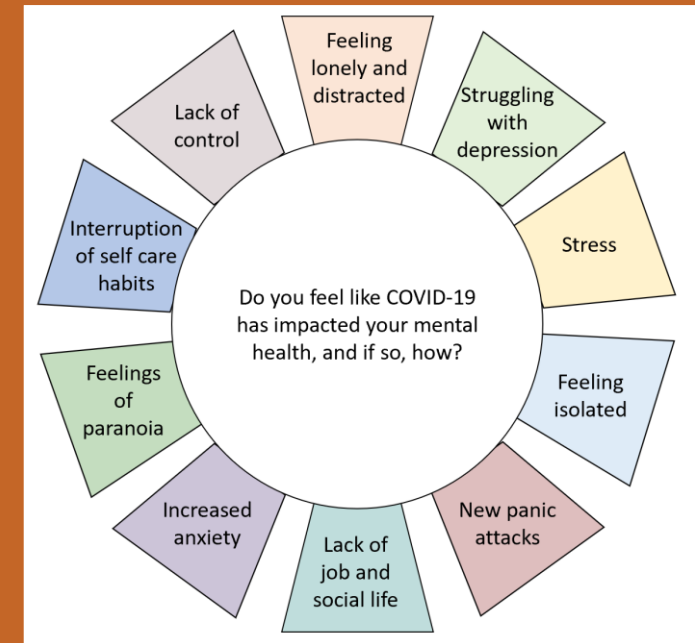
## CLASSIFICATION OF DEPRESSION



The PHQ-9 scoring rubric was used to interpret the screening results and classify depression severity. Out of 25 responses, 14 classified as minimal depression, 7 as mild, and 4 as moderate.

Since the start of COVID-19 in mid-March, how often have you felt lonely or isolated?	Percentage
Not at all	44
Several days	44
More than half the days	0
Nearly every day	8
No response	4

Participants were asked an additional question about how often they have experienced loneliness during the pandemic, with the same answer choice options used for the PHQ-9. Of the 25 participants, 11 said not at all, 11 said several days, 2 said nearly every day, and 1 did not answer.



Abbreviated qualitative responses to the question "Do you feel like COVID-19 has impacted your mental health, and if so, how?", where some responses were listed more than once.



# Effectiveness and Limitations

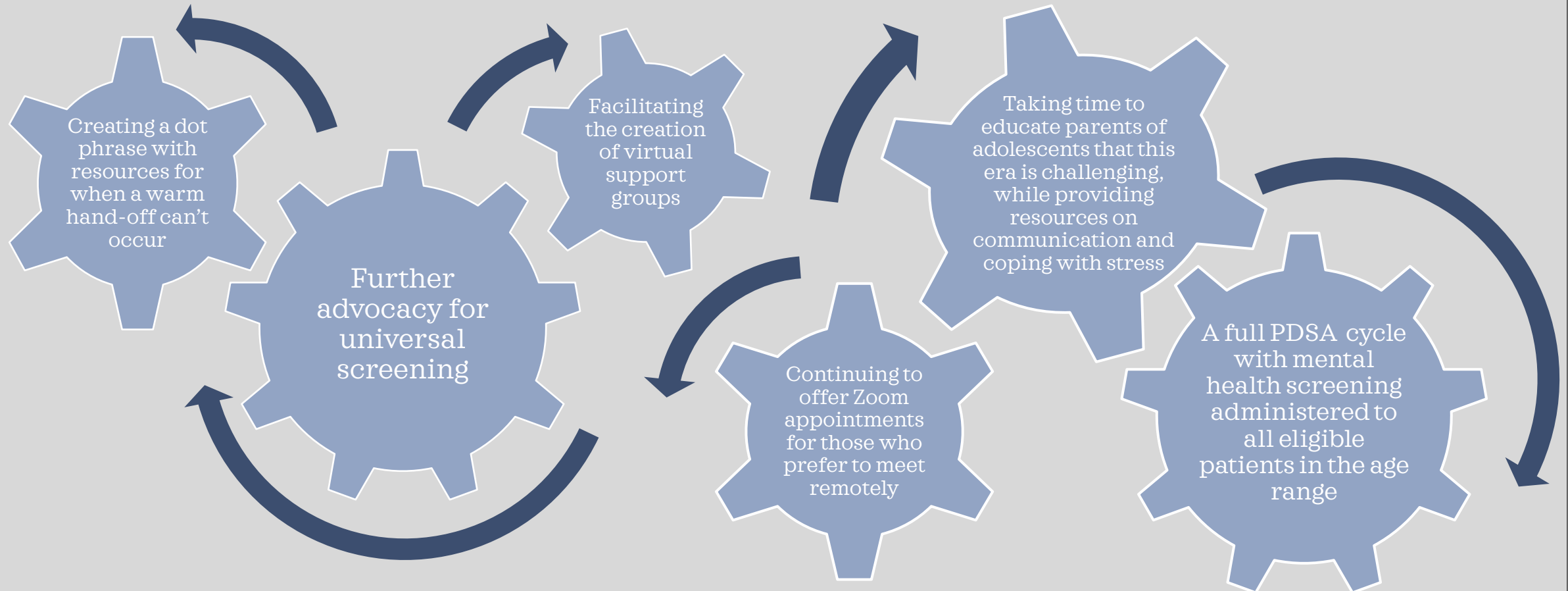
## **Effectiveness**

- Integrated screening into the rooming process successfully to obtain 25 responses from patients in one week
- To evaluate this process in the future, we could do one of the following:
  - Complete a full staff training, implement screening, and then look at screening rates over a 3-6 month period
  - We could also examine the screening results and see whether a subsequent intervention was made (i.e. a referral to social work, a trial of a medication, providing resources, or making an appointment for follow-up)
  - Another option to evaluate the success of this project would be to look at staff feedback for barriers to completing screening in order to improve the workflow process

## **Limitations**

- Small sample size due to cancellations and number of eligible patients
- Intake screening for remote visits proved to be more challenging since patients had to be contacted prior to their visit instead of being seen at check in
- COVID-19 is a novel virus and a situation that poses challenges for many people. It can be difficult to determine who needs to be connected with support services, versus resources for those who may be experiencing more temporary effects.

# Recommendations for Future Interventions



There are several ways that the care team can continue to support patients throughout COVID-19 and afterward. Here are some specific practices based on physician recommendations, journal articles, and personal thoughts for what we can take on in the coming months.

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Consented

Name: Jeremiah Dickerson, MD

Name: Sara Pawlowski, MD

Name: Luke Dorfman, M.Ed.

Did NOT Consent

Name: \_\_\_\_\_

Name: \_\_\_\_\_