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PROMOTING PHYSICAL ACTIVITY IN SCHOOL- AGED CHILDREN DURING THE COVID-19 PANDEMIC

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Milton Family Medicine

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PROBLEM IDENTIFICATION AND DESCRIPTION OF NEED

- **Problem:** Children and adolescents are engaging in less physical activity and increased sedentary behavior since the start of the COVID-19 pandemic.^{1,2} Due to COVID-19 Vermont guidelines, primary outlets for physical activity for school-aged children and adolescents, such as physical education and sports, are being restricted.
 - Inadequate physical activity leads to a significant number of premature deaths each year in the United States and is a contributor to the increasing prevalence of childhood obesity^{3,4}
 - In 2018, the obesity rate of children aged 10-17 in the state of Vermont was 14%⁵
 - Childhood obesity increases the risk of cardiovascular disease, endocrine disorders, mood disorders, and all-cause mortality⁶
 - There is a risk that current changes in physical activity and sedentary behavior due to the pandemic can lead to long-lasting lifestyle changes, leading to increased risk of health complications in children¹
 - In order to comply with the Vermont Principal's Association (VPA) and the Agency of Education (AOE), the Milton School District has decreased the number of school sports practices, the length of practice times, games, and is not offering wrestling or indoor track this winter
- **Description of Need:** Current guidelines recommend children & adolescents engage in 60 minutes or more of physical activity daily, which is critical for healthy development.⁷ Due to decreased physical activity options during the COVID-19 pandemic, there is a need for families to find alternative ways and resources to help keep their kids active.
 - Physical activity benefits:
 - Enables children to maintain healthy body weight
 - Increases muscle and bone strength
 - Reduces risk of diabetes and cardiovascular disease
 - Reduces symptoms of depression and anxiety
 - Improves overall mood
 - Leads to long-lasting healthy lifestyle habits

PUBLIC HEALTH COST & UNIQUE CONSIDERATIONS

- Inadequate levels of physical activity are associated with \$117 billion in annual healthcare costs in the United States⁸
- One study estimated that 12-year-olds who met the criteria for overweight or obesity in the year 2005 will incur \$3.47 billion in lifetime medical expenses as adults, resulting from being overweight as a child⁹
- An estimated annual cost of obesity for the State of Vermont, its employers, and private citizens is \$615.2 million¹⁰



COMMUNITY PERSPECTIVE AND SUPPORT

Interviews & Takeaways:

- **Milton High School Athletic Director:**
 - More than $\frac{1}{4}$ of students at the Milton High School are involved in school sports
 - For many of them, this is their primary form of exercise
 - This year there are reduced number and length of practices and decreased number of games in compliance with VPA and OAE COVID-19 guidelines
 - Coaches have been advised to be more “hands-off” this year due to concern that student athletes will get together outside of scheduled practice to train, increasing risk for COVID-19 transmission
 - No recommended training outside of scheduled practices for safety
 - Milton High School’s on-campus fitness center has been closed since March 2020 (traditionally open to all students)
 - Decreased opportunities for students to be physically active
- **Primary Care Sports and Family Medicine Physician at the Milton Family Medicine Practice:**
 - Kids and adults overall are getting less physical activity during the COVID-19 pandemic
 - There are huge risks due to decreased activity levels: mental health, obesity, people’s ability to socialize and communicate
 - We need to advocate for kids to be more active
 - Encourage physical activity outside of school
 - We need to build our communities in different ways in the future to promote physical activity
 - Safe environments for people to walk and/or ride bikes to school and around town

INTERVENTION AND METHODOLOGY

- Created a pamphlet that highlighted:
 - Current physical activity guidelines for children and adolescents
 - Benefits of physical activity
 - Online resources for families and children that promote physical activity and healthy lifestyles
 - Local recreational areas
 - Ideas on how to incorporate recommended physical activity into everyday life
- Approved by Milton Family Practice Physicians and an AHEC Representative
- Distributed to parents and school-aged children at the Milton Family Medicine Practice



RESULTS AND RESPONSE

- Informational pamphlet distributed at the Milton Family Medicine Practice
- Contains physical activity guidelines, recommendations, and ideas for children & adolescents to help meet the recommended 60 minutes of physical activity a day
- Providers at the Milton Family Medicine Practice were enthusiastic that these will be informational and beneficial to patients

“Thank you, these are really helpful!”

-Primary Care Physician at the Milton Family Practice



Find a new trail or park to explore!

- Bombardier Park
- Eagle Mountain
- Lamoille River Walk
- Milton Town Forest
- River Street Park
- Sand Bar State Park
- Vermont Fish & Wildlife Fishing Access Areas

For more information visit miltonvt.gov/167/Parks-Trails-Facilities

*Don't forget to stay safe!
Be sure to wear a mask
and stay 6 feet apart*



How will you stay active this winter?

Here are a couple of ideas...

- Make it fun!
- Make it a family event
- Make routines
- Create competitions
- Try something new!
- Ride your bike or walk to school
- Break up the recommended 60 minutes throughout the day

Resources and for additional information:
Cdc.org
Active.org
Brightline.com.org

Try out a new yoga pose!

Check out the yoga pose of the month on kidsvt.com



Fun video games to help stay active and fit!

- Just Dance (PS4, Nintendo Switch, Xbox, Wii)
- Fitness Boxing (Nintendo Switch)
- Beat Saber (PS4, VR)
- Zumba Burn it up (Nintendo Switch)
- Wipeout/Create and Crash (Kinect, Wii)
- Nickelodeon Fit (Wii)



RiseVT (risevt.org)

A great resource for ideas on how to "have fun, play more, eat well, and feel good!"

Access to online Tae Kwon Do classes, walks, SK's, and ideas for 20 minutes of play every day

You can never go wrong with a family dance party!

“Recent research has shown short-term changes in physical activity and sedentary behavior in response to COVID-19 may become permanently entrenched, leading to risk of obesity, diabetes, and cardiovascular disease in children.”

Time to start moving!

Milton's Walking Challenge (Nov 1- Dec 31)

A fun way to stay active and win prizes!

Find out more at www.miltonvt.gov/165/Recreation



Keeping Kids Active!

Due to the COVID-19 pandemic, physical activity is more important than ever this winter.

Inside you will find guidelines, benefits, tips, and resources on how to help your children stay active

Physical Activity Guidelines

Children & adolescents should engage in **60 minutes** or more of physical activity daily

Children 3-5 years:

- Encourage activity during play throughout the day

Children and Adolescents 6-17 years:

- Aim for moderate-vigorous intensity (increased breathing, sweating, and heart rate)
- Include activities that promote muscle strength (jumping, tumbling, climbing) 2-3 times a week
- Limit screen time to <2 hours a day



Physical Activity Benefits

- ✓ Increase muscle, bone and strength
- ✓ Maintain healthy body weight
- ✓ Reduce risk of long-term health complications, such as diabetes and cardiovascular disease
- ✓ Improve overall mood
- ✓ Reduce symptoms of depression and anxiety
- ✓ Improve academic performance
- ✓ Leads to lifelong positive lifestyle behaviors!

EVALUATION OF EFFECTIVENESS AND LIMITATIONS

■ Effectiveness:

- Monitor how many pamphlets are distributed
- Discuss with physicians the response to the pamphlets
- Discuss with parents and/or children that received a pamphlet
 - Was this informational?
 - Did it provide you with ideas to stay active this winter?
 - Do you think you will implement any of these ideas into your daily life?

■ Limitations:

- Limited reach to the parents and children who are seen at the Milton Family Medicine Practice
- Information limited to a one-page pamphlet
- Difficult to monitor whether the informational pamphlet helped to increase physical activity or educate patients on physical activity guidelines
- Information limited to the English Language

RECOMMENDATIONS FOR FUTURE PROJECTS

- Survey families who received a pamphlet to determine whether they found the pamphlet helpful, informational, and whether they were able to implement any ideas into their daily lives
 - Moving forward, could another outreach method be more helpful?
- Survey children & adolescents to determine how their physical activity has changed during the COVID-19 pandemic
- Work with local school districts on implementing virtual physical activity sessions for children & adolescents
- Survey adults to see whether their activity levels have changed during the COVID-19 pandemic
- Create a resource for adults on physical activity guidelines, recommendations, and tips during the COVID-19 pandemic

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