

USING ANIMATIONS TO EDUCATE CHILDREN AND THEIR CAREGIVERS ABOUT PEDIATRIC PANCREATITIS

Chinenye Dike, MD, MS¹, Mark Lowe, MD, PhD², Christopher Forsmark, MD³, David Searle⁴, Jane M. Holt⁵, Carrie Anderson⁵, Adriana Cowdin⁵, Maisam Abu-El-Hajja, MD, MS⁶

¹University of Alabama at Birmingham, Birmingham, AL

²Washington University School of Medicine / St. Louis Children's Hospital, Town and Country, MO

³University of Florida, Gainesville, FL

⁴Mechanisms in Medicine Inc., Toronto, ON, Canada

⁵National Pancreas Foundation, Bethesda, MD

⁶Cincinnati Children's Hospital Medical Center, Cincinnati, OH

Background:

Pediatric pancreatitis is associated with significant morbidity and health care burden. Patient education improves disease outcomes. The aim of this study is to evaluate the impact of the Animated Pancreas Patient (APP), pediatric focused online educational modules on patient and caregiver education.

Methods:

Retrospective study of collected APP metrics over 6 years – June 2017 to June 2023. The audience reach and geographic location to the APP site were assessed. Further, we collected data on the top 5 viewed expert and patient videos and evaluated impact of these modules on outcomes through viewer surveys.

Results:

There were 226,772 visitors to the APP Pediatric modules on NPF website. They viewed the modules 310,068 times for an average of 51,678 views/year (Figure 1). Patients and caregivers of the APP Pediatric modules comprised 76% of all viewers (Figure 2). Most viewers were in the USA (Figure 3). The expert video with greatest number of views was "What diet and nutrition plan is recommended to manage chronic pancreatitis" (42,032 views) (Table 2). The most viewed patient video was "What was the pain like with pancreatitis" (46,146 views) (Table 3). In contrast, adult modules had 1,475,252 views over a 4-year period with an average of 368,813 views/year. Given the incidence of Pediatric and adult chronic pancreatitis in 2014 of 1.9/100,000 persons and 24.7/100,000 persons respectively, the average yearly views per incidence were 27,198 and 14,932 for children and adults, respectively.

Conclusion:

The average yearly view/incidence for Pediatric modules was 1.8 times higher than for adult modules. The popularity and effectiveness of the Pediatric modules confirms the need to provide educational materials about Pediatric pancreatitis to patients and caregivers.

References:

1. Sellers ZM, Maclsaac D, Yu H, et al. Nationwide Trends in Acute and Chronic Pancreatitis Among Privately Insured Children and Non-Elderly Adults in the United States, 2007-2014. *Gastroenterology*. 2018;155(2):469-478.e1.
2. Munigala S, Gardner TB, O'Reilly EM, et al. Understanding Pancreatic Diseases Using Animated Pancreas Patient: Informing Patients for Better Health Outcomes With Visual Formats of Learning. *Pancreas*. 2018;47(10):1256-1261.

Table 1. Pediatric Animations Ranked by Views

Animation Title	Views
Helping Kids and Teens Understand Acute Pancreatitis	29,253
Helping Kids and Teens Understand Chronic Pancreatitis	4,866
Helping Kids and Teens Understand and Prepare for Surgery	4,500

Table 2. Top 3 Viewed Expert Videos

Expert Video Title	Views
Diet and nutrition plan recommended in chronic pancreatitis	42,032
How long does chronic pancreatitis last?	22,384
How can repeat acute pancreatitis attacks be prevented?	19,125

Table 3. Top 3 Viewed Patient Videos

Patient Video Title	Views
What was the pain like with pancreatitis?	46,146
What symptoms did you have before diagnosis?	33,888
How was your diet after surgery?	4,522

Figure 1. Visitors to the APP Pediatric Modules



Figure 2. Audience Reach and Demographics

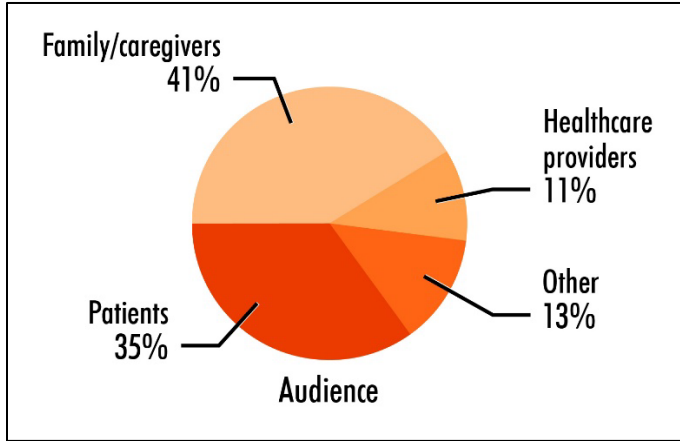


Figure 3. Audience Geography

