



## **Risk stratification in Orthopedic Surgery - Implications for Health Policy**

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Over the course of the summer of 2016, I worked under Dr. Atul Kamath, orthopedic surgeon at Pennsylvania Hospital, examining the quality and readability of online orthopedic information. Particularly, I examined online information regarding Perthes disease, a rare condition found in children caused by a loss of blood flow to the head of the thigh bone, or femoral head. As a result, the femoral head collapses, leading to symptoms such as groin pain and a limp. Early detection of Perthes disease is important as it decreases the need for invasive treatment and increases the likelihood of full recovery.

When children experience groin pain or a limp, parents may take action before scheduling a doctor's appointment or after having already met with a doctor. Oftentimes they turn to the Internet initially to search for information regarding their child's symptoms or diagnosis. However, there have been multiple studies suggesting that the quality of health information online is poor. As a result, parents may be led to believe false information that could be potentially harmful to their child. Although stopping parents and patients from looking up symptoms and diseases is unreasonable and impossible, efforts can be made to improve the quality of online information. My goal in my project was to examine the quality and readability of online information available for Perthes disease.

Through my project, I have learned more about the risks of reading online information. In my everyday life, I never thought twice about searching a question or topic on Google; however, my summer project has made me a more discerning consumer of online information. I have further learned about the different quality and readability tests available in order to examine websites, and I have been exposed to statistical methods in research as well. Most of all, I now have a better understanding of how the research process works, from developing an idea to collecting, analyzing, and drawing conclusions about data.

I can honestly say that this project has added to my learning experience at Penn by allowing me to see the real-life application of my research. When I shadowed my PI Dr. Kamath at his clinic in Pennsylvania Hospital, the amount of patients with prior knowledge established from looking up their symptoms or diseases online really opened my eyes. For what may be the first time ever, I was able to see how my work could actually impact the lives of others in a positive way.