



PAIN REPORTS FROM CHILDREN WITH CANCER THROUGH MOBILE APP, *COLOR ME HEALTHY*

by
Melina Lewis

A Senior Honors Thesis Submitted to the Faculty of
The University of Utah
In Partial Fulfillment of the Requirements for the
Honors Degree in Bachelor of Science in Nursing

Background: Pain is a common symptom in pediatric oncology patients' everyday lives. Pain is associated with a higher symptom burden and is reported to be one of the most bothersome symptoms (Miller et al., 2011, Duffy, et al., 2019, Stinson, et al., 2013). Without proper management, pain can impact children, during the treatment and throughout the rest of their lives (Chambers, 2017, Linder & Hooke, 2019, Chambers, 2010, Baggott, et al., 2010, Stinson, et al., 2015). Thorough, multidimensional assessment leads to more comprehensive symptom management.

Purpose: The purpose of this thesis is to describe children's reports of pain as recorded in the *Color Me Healthy* app during the pilot feasibility and acceptability phase.

Methods: Children's individual data files were extracted and downloaded from their individual accounts within the app. The patients' responses to the daily questions and assessments recorded in the app were compiled in Excel spreadsheets to support quantitative and qualitative analysis

Results: 57% of quantitative symptom reports included pain and all 19 children participating in the study reported pain on at least one occasion. Of the 66 responses to the question "What is

bothering you the most today?”, 16 responses indicated pain. The results of this question included a report of pain more frequently than any of the other free response questions.

Conclusion: Using a multidimensional assessment of pain allows clinicians to have a better understanding of pediatric oncology patients’ experiences with pain. Utilizing mobile apps from home with a multidimensional assessment allows further insight on the day-to-day experiences children are having with pain. With a more comprehensive assessment of pain, clinicians can improve pain management methods.