DEPRESSION AND SLEEP IMPAIRMENT IMPACT ON PAIN AND QUALITY OF LIFE FOR SICKLE CELL PATIENTS

Sheran Maxwell Simo, DNP, APRN, ACHPN, FNP-BC

Ball State University, Muncie, IN, USA / Bridgeport Hospital, Bridgeport, CT, USA

Summary of Current Knowledge

- Vaso-occlusive crisis pain is both an acute and chronic factor for patients with sickle cell disease (SCD).
- Many complications associated with SCD have some aspect of pain associated with them (Ballas, 2011; Ballas et al., 2012).
- Acute, recurrent, and unremitting pain is often joined by other affective disorders that affect pain chronically.
- Some patients with SCD have depression and/or sleep disturbances that may affect pain levels and quality of life (QOL) (Ballas et al., 2012; Vinchinsky, 2014).
- Patients with SCD have a higher incidence of depression and anxiety compared to those in the general population (Treadwell, Barreda, Kaur and Gildengorin, 2015).
- These psychiatric conditions may develop or worsen as a result of unmanaged acute or chronic pain (Ballas et al., 2012).

Purpose and Goal

- The purpose of this quality improvement project was to improve the process of evaluation and treatment of depression and sleep impairment in patients admitted with vaso-occlusive crisis (VOC).
- The goal of the project was to improve overall pain levels and quality of life for patients with SCD through efficient evaluation and treatment for depression and sleep impairment.

Outcomes & Objectives

- Develop an interprofessional, evidence-based guideline to evaluate the existence of depression and sleep impairment in all patients admitted with VOC.
- Assess 100% of patients admitted and readmitted during the project period for depression, sleep impairment, pain and QOL.
- Offer treatment to 100% of patients identified with depression and/or sleep impairment based on algorithm designed by the treatment team.
- Patients who accept treatment will show a 50% improvement from baseline in depression and/or sleep impairment, pain and QOL.

Conceptual Model

- The five phases of the Stetler Model were used to guide the process of translating existing research into evidence-based practice.
- An interdisciplinary sickle cell team created the Guideline for the Evaluation and Treatment of Depression and Sleep Impairment in Sickle Cell Disease.
- The sickle cell team initiated implementation of the guideline in August, 2016 as standard of care.

Intervention

- The patient population was comprised of patients ages 18 and above, admitted to the hospital with SCD as the principle or secondary diagnosis.
- All adult patients with SCD admitted to hospital and seen for pain management by Palliative Care Service were evaluated and treated during pain consult, according to the established guideline.
- Four reliable and validated tools established as appropriate for the use in the assessment of depression, sleep impairment, pain and quality of life in patients with sickle cell disease were incorporated in the guideline.
- Patients were initially assessed, then reassessed during each readmission for sickle cell pain crisis, regardless of the results of the initial evaluation; treatments were offered, if appropriate, based on the guideline.
- A chart review was conducted with patient informed consent to collect data on initial and follow-up evaluations, as well as any treatment provided.

Assessment Tools

- The Patient Health Questionnaire (PHQ-9). Nine question self-assessment tool used to screen for and monitor treatment for depression (Maurer, 2012).
- The Pittsburgh Sleep Quality Index (PSQI). Tool using seven domains to measure quality and patterns of sleep in the adult (Smery, 2012).
- Numerical Rating Pain Scale (NRS) and Simple Descriptive Pain Scale (SDPS). NRS – Verbal 0-10 scale, with “0” being no pain, and “10” being worst possible pain. SDPS – Patient asked to describe whether their pain is “better”, the “same” or “worse” as compared to previous evaluation (Posner & McGrath, 2011).

Conclusion

- Small convenience sample, only those patients who were hospitalized were assessed.
- Not all patients who had initial assessment were readmitted, limiting ability to reassess.
- Short time span for follow-up after initial assessment.

Implications for Nursing

- Palliative care advanced practice nurses (APNs) provide support and symptom management to patients with life-limiting and serious illnesses, including patients with SCD, as a means of improving quality of life.
- This project has significance for APNs in both palliative care and specialty SCD/Hematology care as a means to translate existing research into evidence-based practice, as well as provide an efficient and effective means to evaluate and treat depression and sleep impairment and their impact on pain and quality of life.

References

- Available upon request – please email author at ssmimo0856@gmail.com

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