INTRODUCTION

Persistent pain after motor vehicle collision (MVC) is common and results in substantial societal costs.¹

Posttraumatic stress symptoms commonly co-occur with pain symptoms after MVC, and appear to predict transition to chronic pain.² For example, Sterling et al. found that the elevated Impact Scale Revised (IES-R) scores within 1 month of MVC were unique to those with moderate or severe neck pain 6 months after injury.³ Posttraumatic stress may promote the transition to chronic pain via a number of mechanisms, including psychological interventions may be effective in reducing both stress and pain.⁴

The frequency of use of mental health services by individuals with co-morbid pain and PTSD symptoms during the initial weeks after MVC is not known. This may be a particularly important time in which to provide psychological interventions to prevent the transition to chronicity.⁵

In this study, we examined health care utilization during the weeks after MVC among individuals with neck pain and substantial co-morbid PTSD symptoms.

METHODS

Data collected as part of an ongoing prospective study of patients presenting within 24 hours of the MVC to study network ED sites (Figure 1). Consenting participants completed evaluation in the ED and six weeks post-enrollment.

Six week survey assessed:

- Moderate or severe neck pain: defined by numeric rating scale score ≥ 41 (0 – 10 scale)
- Substantial PTSD symptoms: defined by IES-R score ≥ 31²
- Health care utilization: determined by evaluating visits to medical professionals during the past six weeks (i.e. since MVC).

Following univariate descriptive analyses, bivariate analyses were performed examining characteristics associated with health care utilization after MVC among all patients. Additional analyses were performed examining health care utilization among patients with moderate or severe neck pain, patients with substantial PTSD symptoms, and among patients with both moderate or severe neck pain and substantial PTSD symptoms.

RESULTS

- 282/259 (51%) reported seeking a medical professional for injuries or health problems caused by the motor vehicle collision. Among individuals receiving care, the most common sources of care were primary care physician (49%), physical therapist (19%), and chiropractor (18%) (Figure 2).

REMARKS

- Older patients were more likely to seek health care (>0.001). Patient sex, education, income, and relationship status were not significantly associated with health care use. Insurance status predicted health care utilization at the trend level (Table 1).

Figure 2. Medical professionals sought by individuals after minor motor vehicle collision.

Figure 3. Frequency of health care utilization by individuals after MVC with moderate or severe neck pain and PTSD symptoms.

CONCLUSION

- A little over half of the individuals in this study who followed up at 6 weeks reported seeking health care for injuries or other health problems caused by the MVC, however, merely 9 individuals reported seeking mental health care. As part of comprehensive follow up and pain management, mental health should be included in addition to physician and other medical professional care.