Risk factors for persistent pain after motor vehicle collision differ between litigants and non-litigants


INTRODUCTION

• Worse pain outcomes are observed among individuals seeking monetary compensation after motor vehicle collision (MVC) (Figure 1), but whether the etiology of persistent pain among such litigants differs from non-litigants remains poorly understood.

• One commonly used method for gaining insights into disease pathogenesis is to evaluate risk factors for disease development.1

METHODS

• In this prospective observational study, we compared predictors of persistent pain after MVC among litigants and non-litigants.

• European Americans ≥18 years of age within 24 hours of MVC who did not have a serious fracture or injury requiring hospital admission were enrolled.

• Participants were recruited from 8 Emergency Departments in verbal or monetary threshold no-fault insurance states (Figure 2).

• Baseline ED assessment included an evaluation of:
  - participant sociodemographic characteristics
  - pre-MVC health characteristics
  - MVC history
  - participant cognitions and symptoms in the ED

• Six week follow-up evaluation assessed litigation status and neck pain intensity during the past week (0-10 NRS); scores ≥4 were defined as moderate/severe neck pain (MSNP). Candidate predictors of six week MSNP were assessed via log-bomial regression. Additionally, an interaction term (risk factor × litigation status) was included, and the models were re-run to assess differences in candidate predictor effects by litigation status.

RESULTS

• Six week follow up was obtained in 859/948 (91%) of enrolled participants, and 148/859 (17%) reported that they had hired a lawyer to sue for compensation (“litigants”). MSPS was reported by 58/148 (40%) of litigants and 218/711 (31%) of non-litigants six weeks after MVC.

• Female sex, increased ED neck pain severity, and presence of many somatic symptoms in the ED predicted 6 week MSNP among both litigants and non-litigants.

• Among litigants, unique predictors of 6 week MSNP included not working full time, health insurance, and being a vehicle passenger vs. driver.

• Among non-litigants, unique predictors of 6 week MSNP included age of 42-65 years, moderate vehicle damage, increased participant estimate of time to physical or emotional recovery, significant pain catastrophizing, widespread pain in the ED, overall pain severity in the ED, and neck pain prior to MVC.

• Significant differences in risk factors between litigants and non-litigants include sex, income, working full time, being a vehicle passenger or driver, widespread pain in the ED, neck pain in the ED, certainty of recovery, number of days to recovery emotionally, number of days to recover physically, predisposition to anxiety, physical health, mental health, and pain catastrophizing.

CONCLUSION

• These findings suggest that differences in the etiology of persistent MSNP after MVC may exist between individuals engaged in litigation vs. not engaged in litigation.

REFERENCES