Attitudes Towards Treating Injured Patients in Urgent Care

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Attitudes Towards Treating Injured Patients in Urgent Care

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"Evaluating Clinician Attitudes Towards Treating Patients Involved in Motor Vehicle Accidents in the Urgent Care Setting"

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ABSTRACT

There has been published literature on the topic of clinician bias and the effects of bias on patient care, however, a review of the literature did not yield any research on the topic of clinician bias towards treating patients injured in motor vehicle accidents (MVA’s). There has been concern about clinicians not preferring to see patients injured in MVA’s however this is only anecdotal. If this topic is to be addressed through quality improvement efforts, there should first be scholarly evidence to support these efforts. This study employed a prospective survey of a convenience sample of clinicians who practice in the urgent care setting to evaluate for evidence of preference or bias in regard to patients injured in MVA’s compared to patients injured by other mechanisms. Non-parametric statistical analysis of the data shows that the participants in this study did not exhibit preference or bias for or against patients injured in MVA’s compared to other mechanisms of injury with the exception of having a dislike for injuries in the pediatric population as a result of a MVA. Further research is needed to explore this finding due to the limited statistical power of this analysis and could impact patient care.
DEDICATION

I dedicate this to my husband, Dr. James Marc Beverly. Marc’s continued support and encouragement throughout my entire career in the field of nursing has helped lead me to the pinnacle of my academic studies as I complete my Doctorate of Nursing Practice. He has been a steadfast partner and an example of resilience, dedication, and scholarship. I look forward to the prospect of continued research as I join Marc as a Doctorally prepared professional.

AKNOWLEDGEMENTS

I am fortunate to acknowledge several individuals who have been instrumental in my academic success. I would like to acknowledge the many hours of work my mother has dedicated to support my studies. She has always encouraged and supported me and continues to do so.

Also, I would like to acknowledge Jeri Belsher, my academic advisor at the College of Nursing, who encouraged me in 2009 to apply for my Bachelor of Science in Nursing and who continued to see me through my Master of Science in Nursing and now my Doctorate of Nursing Practice.

Finally, I would like to recognize Dr. Roper, Dr. Martin, Dr. Delucas, and Dr. Mermier for supporting me through this process.
TABLE OF CONTENTS

TITLE PAGE .............................................................................................................. ERROR! BOOKMARK NOT DEFINED.
SIGNATURE PAGE ...................................................................................................... ERROR! BOOKMARK NOT DEFINED.
ABSTRACT .................................................................................................................. 3
DEDICATION ............................................................................................................... 4
ACKNOWLEDGEMENTS ............................................................................................. 4
TABLE OF CONTENTS ............................................................................................... 5
LISTS OF FIGURES .................................................................................................... 8
LISTS OF TABLES ...................................................................................................... 8
LISTS OF ACRONYMS ............................................................................................... 8
CHAPTER 1 .................................................................................................................. 9
INTRODUCTION AND BACKGROUND ..................................................................... 9
PROBLEM STATEMENT ............................................................................................. 10
STUDY PURPOSE/PICO ............................................................................................. 10
RESEARCH QUESTIONS ........................................................................................... 10
HYPOTHESIS ............................................................................................................. 11
NULL HYPOTHESIS .................................................................................................. 11
PICO QUESTIONS ...................................................................................................... 11
SCOPE OF THE STUDY ............................................................................................ 12
STUDY ASSUMPTIONS ............................................................................................. 12
STUDY SIGNIFICANCE .............................................................................................. 13
LISTS OF FIGURES

Knowledge to Action Framework  Diagram 1
Distribution of Subjects by License Type  Diagram 2
Distribution of Subjects by Years of Practice  Diagram 3
Distribution of 5-Point Likert Scale for Pediatrics  Diagram 4

LISTS OF TABLES

Mann-Whitney U Test Results for Schedule Scenarios  Table 1
Answers to Short-Answer Question One  Table 2
Answers to Short-Answer Question Two  Table 3
Answers to Short-Answer Question Three  Table 4

LISTS OF ACRONYMS

APP  Advanced Practice Provider
DO  Doctor of Osteopathy
ED  Emergency Department
MD  Medical Doctor
MVA  Motor Vehicle Accident
NP  Nurse Practitioner
PA  Physician Assistant
UCC  Urgent Care Clinic
CHAPTER 1

INTRODUCTION AND BACKGROUND

About three million Americas are injured annually in motor vehicle accidents (MVA’s) (CDC, 2019). Although MVA’s can be fatal, safety improvements over time have led to an increased number of non-fatal injuries. For every death related to a MVA, eighty-eight individuals are treated and released directly from the emergency department (ED) (CDC, 2020). Urgent care centers (UCC) are becoming a popular treatment setting for a large number of patients, including MVA patients. Patients are also being advised to seek care in UCC for injury symptoms related to MVA’s (Mayo Clinic, 2020). It is the duty of the urgent care provider to assess for more severe injuries in MVA patients which may be out of the scope of urgent care and transfer these patients to the ED (Kim & Miller, 2020).

Although it has been an established practice within the urgent care scope to evaluate and treat or redirect MVA patients, it has been observed anecdotally that clinicians may not feel indifferent about seeing MVA patients in the urgent care setting. It is possible that clinicians have negative feelings towards treating MVA patients for a variety of reasons, however this is unsupported by the literature. A systematic review of the literature at the time of this manuscript shows evidence of bias amongst clinicians on several topics but there are yet to be studies performed or reported on clinician bias towards MVA patients (FitzGerald, C., & Hurst, S., 2017).

Clinician bias can negatively impact medical decision making and the treatment of patients (FitzGerald, C., & Hurst, S., 2017). Additional stress may also be felt by clinicians secondary to any negative attitudes or bias towards treatment of MVA patients (Hall, et al., 2015). Bias can be mitigated over time and lead to improved outcomes (Hall, et al., 2015). If there is an opportunity to improve MVA patient outcomes and clinician experience related to clinicians’ attitudes, it is imperative to first evaluate for clinician bias.
Problem Statement

Addressing clinician bias is important to reduce the possibility of unequal treatment of patients and improve patient outcomes (FitzGerald & Hurst, 2017). A literature review of this topic did not yield scholarly evidence of treatment bias for injuries sustained in a MVA and evidence regarding MVA injuries and patient reports of pain are emerging (Carragee, 2008). Prior to initiating quality improvement efforts, it is imperative to first establish evidence as a basis for future strategies to improve clinician experience and patient outcomes. The scope of this scholarly project was aimed at evaluating clinician attitudes towards patients injured in MVA’s through qualitative and quantitative data collection and analysis to further understand if bias exists and assess for any common trends amongst clinicians. This may serve as a basis for continued quality assurance and quality improvement efforts which may be a focus of clinic management and patient care.

Study Purpose/PICO

The purpose of this scholarly project was to evaluate clinician attitudes towards treating MVA patients in the UCC setting to establish a foundation for an evidence-based approach to determining if there is a potential bias to improve ongoing healthcare in both the clinician experience and patient outcomes.

Research Questions

The following research questions were addressed:

1. Do UCC clinicians self-report a preference regarding treating patients injured in a MVA? If so, what impacts that preference?
2. Do UCC clinicians self-report a preference to treat patients injured by mechanisms other than MVA?
3. What are the characteristics and attitudes of providers who chose to treat MVA patients and those who do not?

4. What are the notable variables in treatment patterns of UCC clinicians treating MVA patients?

**Hypothesis**

It was hypothesized that:

1. UCC clinicians prefer not to see patients injured in MVA’s compared to patients who sustain injuries by other mechanisms.
2. UCC clinicians prefer to see patients injured by other mechanisms compared to MVA’s.
3. An injury due to a MVA will cause UCC clinicians to prescribe medication for pain more frequently than for other mechanisms of the same type of injury.
4. UCC clinicians transfer care to the ED at a higher frequency for patients injured in MVA’s compared to other mechanisms of the same type of injury.
5. UCC clinicians do not like to document injuries related to MVA’s.
6. UCC clinicians will avoid seeing patients with MVA associated injuries on a clinic schedule.

**Null Hypothesis**

The null hypothesis was that UCC clinicians have a neutrality towards seeing patients injured in MVA’s.

**PICO Questions**

The PICO formula was used to frame the project as follows:

**(P) Population/Problem:** Care provided by UCC clinicians who see patients for MVA may be impacted by clinician bias.

**(I) Intervention:** A survey was created to assess clinician’s attitudes towards seeing patients injured in MVA’s.
(C) Control: There has not yet been a study on this topic to compare the studied population to a control population, therefore a control group was created using the null hypothesis ($H0$) which assumes there is no preference or bias.

(O) Outcome: Evidence-based data was created as a foundation for further quality improvement efforts.

Scope of the Study

The scope of the study was limited to clinicians with a license of NP, MD, DO, or PA who actively practice within a UCC setting at sites in Washington State. Inclusion criteria: clinicians must see both pediatric and adult patients and if they chose to take the survey, they must answer at least one of the survey questions related to attitudes towards treating injured patients. Exclusion criteria included any participant who was a healthcare provider other than those listed above chose not to participate in the study or who ceased to answer further questions in the survey. Clinicians who do not read and understand English were excluded from the study. Unanswered questions were omitted from the data sets for statistical analysis.

Study Assumptions

This study will use a web-based survey method to collect data. The following assumptions were made in regard to this study:

1. Participants will completely read and understand the questions on the survey.
2. Participants will truthfully answer the questions.
3. Participants will abstain from discussing the survey with other clinicians.
Study Significance

This research may be the first performed on this particular topic. The findings of this research will explore UCC clinician attitudes toward treating MVA patients and may serve as a basis for future efforts on the topic.
CHAPTER 2

REVIEW OF THE LITERATURE

Review Methods

The databases at the University of New Mexico Health Science Center Library were searched for literature including combinations of key words including attitudes, MVA, clinician, motor vehicle accident, injury, bias. No articles were found on the topic of treatment bias by clinicians for patients injured in MVA’s. Further assistance was obtained from a Health Science Center Librarian at the University of New Mexico and, again, no articles were found on the topic. Further research was performed using the terms of clinician, bias, and treatment. The following articles were selected and reviewed to provide further insight into this topic:

FitzGerald, C., & Hurst, S. (2017) performed a systematic review of literature published between 2003 and 2013 on the topic of implicit bias amongst clinicians. Major research databases were utilized and a total of 42 articles met inclusion criteria. There were four inclusion criteria for the articles which included that the study was empirical, implicit bias was identified rather than explicit, study participants were physicians and nurses who had finished their studies, and the article had to be in English or another language the authors spoke.

Of the articles chosen, the most common biases studied were racial bias and gender bias. There were ten other biases investigated amongst the articles. The two most common methods used were the assumption method and the implicit association test. It was found that implicit bias does exist amongst physicians and nurses with most studies finding evidence of this. A notable finding was that physicians and nurses exhibit bias similar to those who are not in the same respective field. Only seven of the 42...
studies did not find that physicians and nurses were biased. It was also found that nurses and physicians behave and treat patients differently when they are biased.

There are limitations found during this review which included that there is no single accepted definition of implicit. Four of the studies were found to have participants who did not finish their studies as a physician or nurse and these participants were not excluded from the studies’ data sets. The authors concluded that this did not alter the findings that implicit bias exists amongst these groups of health care workers. FitzGerald, C., & Hurst, S. (2017) also noted that there were limitations based upon the low sample size and low response rate of some of the studies, and there was some limited reporting on statistical methods.

The authors concluded that it is important to address implicit bias amongst health care professionals due to the unequal treatment that may occur for some patient populations due to this bias. Raising awareness of implicit bias may address these disparities and improve patient care.

Hall, et al., (2015) also performed a systematic review on the topic of implicit bias in health care and how these biases influence outcomes. The authors used a criterion called the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) criteria to select articles and further developed inclusion and exclusion criteria. Inclusion criteria were similar to FitzGerald, C. & Hurst, S. (2017) but had a broader subject base as they included health care workers of various disciplines who were either still in training or had completed training. The articles had to specifically discuss implicit bias on race/ethnicity and be written in English only.

After conducting a search on several major research databases and performing rigorous inclusion and exclusion criteria screenings, a final of fifteen articles were selected for review. After reviewing implicit association test scores in the studies, it was determined that implicit bias against racial and ethnic groups was present amongst healthcare workers. The authors found that this bias had a greater effect on patient-provider relationships than patient outcomes. This review suggested that healthcare worker stress
may increase bias. Several studies used the implicit association tool and there were similar limitations to the review performed by FitzGerald, C., & Hurst, S. (2017) including low sample size/response rate.

Chekuri, L., Mittal, D., & Ounpraseuth, S. (2018) performed research on the relationship between negative stereotypes and social distancing of health care providers by examining provider’s attitudes towards two hypothetical patients using a vignette. Participants (n=351) in this study worked at the Veterans Administration and were presented with a hypothetical patient with schizophrenia and on without. Three tools were used to collect survey responses: the 9-item Semantic Differential Scale, 9-item Attribution Questionnaire, and Social Distance Scale. The researchers determined that there was a positive correlation between stereotype and social distancing behavior amongst clinicians.

Chekuri, L., Mittal, D., & Ounpraseuth, S. (2018) found that the stigma associated with certain patients have a significant impact on these patients which also impacts the health care system. There may be an assumption that health care providers would have a greater understanding of illness and biology and therefore be less discriminatory and biased compared to the general population, however, similar to what FitzGerald, C., & Hurst, S. (2017) found, this was not the case. Medical providers were found to stigmatize individuals at similar rates to the general population.

The authors concluded that these findings merit future research and efforts on the topic of discrimination and prejudice amongst health care providers in an effort to minimize the negative impact it has on patients. A limitation of this study was that only VA medical providers were included in the study.

**Literature Summary**

In summary, review of the literature provides evidence that bias can exist amongst clinicians and bias is able to be studied, however there is no literature reviewing whether or not UCC clinicians have bias in regards to treating patients injured in motor vehicle accidents. Clinician bias can impact patients negatively. Since no literature exists on this topic specifically, further research is needed to establish whether evidence of bias exists in this particular circumstance.
CHAPTER THREE

THEORETICAL MODEL AND METHODOLOGY

Theoretical Model

The framework for this project is The Knowledge to Action Framework (KTA framework) (Graham et al., 2006). The scope of this project is central in this framework, which is knowledge creation. Knowledge creation is composed of knowledge inquiry, followed by synthesis, and finally a product as shown in Diagram 1. This framework subsequently serves as a guide to take this new knowledge product and translate it to clinical practice. The product created by this scholarly project will be statistical data which will inform evidence-based practice.

Methodology

This study is a single-blinded prospective study using a convenience sample and a web-based survey. The survey (Appendix) will be formulated to include multiple choice and open-ended short-answer questions to elicit responses about the attitude clinicians have towards treating injured patients in the urgent care setting with a focus on patients injured in a MVA. A 5-point Likert Scale will be used in some of the survey questions ranging from 1 (strongly dislike) to 5 (strongly like) as a valid assessment tool.

Multiple choice questions will include questions about fictitious patient case scenarios that describe those injured by various mechanisms including MVA. These mechanisms will be equally and randomly distributed amongst the answer choices and the questions. Finally, clinicians will be given the opportunity to provide short answers to three questions about MVA’s. The total number of questions in the survey will be 40 to allow for equal distribution of questions about MVA’s and other mechanisms of injury in the multiple-choice category.
The web-based survey was distributed to clinicians via email with secure links to the online survey. Participant responses were anonymous to the researchers. The results were compiled and analyzed via statistical analysis software.

**Ethics and Human Subjects Protection**

This study poses minimal risk to the participants as it is designed to be a one-time online survey that is optional and anonymous. The survey does not include questions about sensitive topics and the sample does not include vulnerable populations. The benefit to the participants will be that they will be able to contribute to a body of research that may further benefit efforts to improve clinical practice and patient outcomes.

The University of New Mexico Health Science Center Institutional Review Board approved the study with exempt status on February 15th, 2021. The study was also submitted to the Institutional Review Board at the participating sites and approved on March 3rd, 2021. The participating sites are not identified in this manuscript to protect the interests of the entity providing clinical oversight and to protect identity of the participants and those who chose not to participate in the study.

**Setting and Resources**

The setting for this project was across outpatient urgent care centers in the Washington State where clinicians have access to email. Each UCC serves different patient populations and are part of the same organization. These UCCs are not within the same building as an ED and are typically staffed with anywhere from one to three clinicians. Clinicians who practice at the UCC locations include NPs, PAs, MDs, and DOs.

Adult and pediatric patients are seen on both a scheduled and a walk-in basis. Patients seeking care for injuries, including injuries sustained in a MVA, are evaluated by a clinician and either treated in the urgent care or transferred to a higher level of care if appropriate. The number of patients seen on a daily basis varies based on clinic location and may be less than ten patients or greater than one hundred patients.
Study Population

The study population was urgent care clinicians including all practicing clinicians at the UCC. The participants were recruited via email to participate in a one-time survey online in a convenience sample. The population targeted by recruitment efforts was approximately 50 clinicians. This number was dependent on the number of clinicians actively practicing at UCC sites that participated in this study. This number did not vary significantly during the study.

A power analysis for various parametric tests was performed and a minimum of 16 participants were determined to be required to maintain statistical power if certain parametric tests were used to analyze the data. There was no minimal sample size for this study given the limitations. Participants who partially complete the survey were included in the analysis for the questions they responded to as long as they answered at least one question regarding attitude.

Research Design and Data Collection Process

A survey was distributed electronically through a hyperlink provided in the recruitment email (Appendix A). The hyperlink took the participant to the web-based survey in the Research Electronic Data Capture tool, REDCap. The participant did not have a time limit to complete the survey as long as it was completed by the survey closure which was set to 11:59 pm PST on March 19th, 2021. Participants were able to stop the survey and return at any time to complete the survey. Once the survey was completed, participants were not able to return to the survey to change/edit any answers. The completed survey data was collected from REDCap in a spreadsheet and subsequently analyzed.

Data Protection Plan and Quality

The survey was administered through REDCap software securely store data. Participant identity was anonymous.

Several efforts were made to reduce bias in the study by the participants. To avoid sampling bias, the survey was sent to all clinicians at the same time with an individualized secure link in a single recruitment email to their work email address. It was expected that each clinician worked at least one shift
per week. The timeframe to participate in the study was set for one week to allow everyone the opportunity to respond to the recruitment email. The recruitment email addressed all clinicians and did not refer to any one clinician license type specifically to avoid non-response and response bias.

The greatest efforts to prevent bias were through survey design. Aside from the final three questions of the survey, the questions were designed to address four mechanisms of injury equally to prevent unmasking the focus of the survey. The survey was comprised of multiple-choice and five-point Likert Scale questions to measure attitudes. The survey also included three short-answer questions that were placed at the end of the survey to avoid introducing bias early in the study. The short-answer questions were written in open-ended format. A message was displayed after completion of the study asking participants to avoid discussing the survey with colleagues.

To avoid confirmation bias, the multiple-choice questions were created to produce quantitative data that could be statistically analyzed. Non-parametric statistics were used appropriately if the sample size was insufficient, rather than parametric statistical tests that might inappropriately produce results that support the hypothesis but could also result in significant flaws or errors if the sample were too small.

**Timeline**

The timeline for this study is:

Project Proposal: May 14th, 2020: Proposal Accepted

Project Development: June 2020-December 2020.


Survey Open: March 10th-March 19th, 2021

Data Analysis and Conclusions: March 20th 2021-April 13th 2021

**Budget**

This was a self-funded study. Costs were limited to software acquisition and were $249.00. The IRB of the study sites waived the review fee as this study met the requirements for expedited review. No financial incentive was offered to participants.
Data Analysis

Data was collected from REDCap and imported into Microsoft Excel (version 16.47.1) and SPSS (version 26). All participants who met the inclusion criteria were included in the final data analysis. Of the sixteen participants, two participants did not answer survey questions beyond the inclusion criteria minimum and demographic data and were excluded. The number of completed and partially completed surveys was fourteen (n=14).

The 40 survey questions were divided into the respective data sets based upon question content and the data was transformed into data tables that could be utilized by SPSS. Descriptive statistics were utilized to evaluate the standard deviations, means, and the medians of the data sets.

Using G*Power (version 3.1) analysis, neither an ANOVA nor independent t-test with a 95% confidence interval was viable for the sample size and distribution. Therefore, in order to obtain reliable statistical evaluation for the data, a Mann-Whitney U test was performed at a 95% confidence interval.

The test group included all participants who responded to the questions in the data sets respectively. The control group was set to $H_0$. The r value was calculated separately as this is not an available marker in SPSS (version 26).

Three short-answer questions in the survey were tabulated and analyzed for similarities and themes. The short-answers were then summarized.
CHAPTER 4

RESULTS AND DISCUSSION

Of the 14 participants that were included in the study, there were 4 (28.6%) NPs, 3 (21.4%) MDs, 1 (7.1%) DO, and 6 (42.9%) Pas, Diagram 2. Ten (71.4%) of the participants had been practicing for five or more years, Diagram 3. The remaining 4 (28.6%) participants had been practicing between two and five years. There were no participants who had been practicing medicine for less than two years. The majority of the participants had practiced medicine for five years or more.

Quantitative Data

Preference

There was no significant difference in the self-reported preference against MVA treatment in the control group ($Md = 0.25, n = 11$) and the test group ($Md = 0.40, n = 11$), $U = 44, z = -1.180, p = 0.238, r = .25$. Additionally, no significant difference in the preference to treat the alternative to MVA in the control group ($Md = 0.75, n = 10$) and the test group ($Md = 0.70, n = 10$), $U = 50, z = 0, p = 1.0, r = 0$.

Self-Reported Like and Dislike

For self-reported like and dislike of seeing patients involved in a MVA, there was no difference between the control group and the test group: control ($Md = 0, n = 9$), test ($Md = 0.33, n = 9$), $U = 27, z = -1.844, p = 0.65, r = 0.43$ and control ($Md = 0, n = 8$), test ($Md = 0, n = 8$), $U=20, z = -1.861, p = 0.63, r = 0.47$, respectively.

Pediatric Compared to Adult

To assess preference for a pediatric patient injured by a MVA or other mechanism, a 5-point Likert Scale was used. There was a difference between the control and the test group with the test group not preferring to see a pediatric patient injured in a MVA compared to other mechanisms with the same injury: control ($Md = 3, n = 10$) and the test ($Md = 2, n = 10$), $U=25, z = -2.227, p = 0.026, r = 0.49$, respectively.
Diagram 4. There was no difference found on a 5-point Likert Scale in regard to preference for or against an adult patient injured in a MVA compared to other mechanisms of injury between the control and test group: control \((Md = 3, n = 10)\) and the test \((Md = 3, n = 10)\), \(U=35, z = -1.494, p = 0.135, r = 0.33\).

**Documentation and Transfer of Care**

There was no difference found in preference for documenting an injury sustained in a MVA compared to other mechanisms between the test and the control group with zero participants answering that they did not prefer to document a MVA injury. There was also no difference in the tendency to transfer care to the emergency department for patients injured in MVA’s compared to patients injured by other mechanisms between the test and control group: control \((Md = 0.25, n = 12)\), test \((Md = 0, n = 12)\), \(U=60, z = -0.755, p = 0.450, r = 0.15\).

**Prescribing Practices**

Participants did not choose to prescribe analgesia more frequently for a patient injured in a MVA compared to a patient with a similar injury sustained by a skateboarding accident: \((Md = 0, n = 12)\) and \((Md = 0, n = 12)\), \(U = 66, z = -0.492, p = 0.623, r = 0.10\).

**Choosing Patients from a Schedule**

When given the opportunity to choose from a scenario-based schedule of injured patients that included MVA injuries and injuries from other mechanisms, there was no difference in preference for or against MVA injuries between the test and control group, Table 1. Three scenarios were excluded from the analysis due to not including a MVA patient and for including a patient who could be potentially considered MVA related or not (road rash, “T-bone” type accident).

**Qualitative Data**

**Short-Answer Questions**

Review of the qualitative data revealed common answers amongst participants. Five of the six participants who answered the question: “How do you feel about evaluating and treating patients who
have been involved in motor vehicle accidents?” did not respond negatively. One of the six participants stated that seeing MVA patients “can be challenging.” Table 2.

Clinicians felt that patients injured in MVA sought care for a variety of reasons. Five of the nine participants that responded to the question “Why do you feel patients involved in MVA's seek medical care?” reported that they felt patients sought care out of concern or worry, Table 3.

When clinicians responded to the question “In your opinion, what prompts patients involved in MVA's to seek medical care?” the two most common responses were related to documentation and pain with four out of nine participants citing documentation and three of nine citing pain, Table 4.

**Interpretation of Results**

**Quantitative Data**

This study found that participating clinicians had no aversion towards patients injured in a MVA compared to patients injured by other mechanisms. Alternatively, clinicians had no predilection towards patients injured by other mechanisms compared to MVA’s. This data set supports that the surveyed clinicians do not have an aversion to patients injured in MVA’s and that clinicians do not favor other mechanisms of injury over MVA’s. This could indicate that clinicians do not have avoidant behavior towards patients involved in MVA’s and will not select other injuries over a MVA related injury.

When given the opportunity to self-report the like or dislike of caring for patients injured in MVA’s clinicians failed to demonstrate preference or aversion. This finding aligns with the previous data set and supports congruent behavior with self-reported attitudes.

In regards to the pediatric and adult populations injured in MVA’s; clinicians indicated they did not prefer to see pediatric patients injured in MVA’s compared to other mechanisms of injury for the same reported injury findings. This is further supported by the qualitative data findings where a participant specifically stated that “I prefer not to see pediatric patients post MVA”. For an adult patient with a leg injury, clinicians did not show aversion to a leg injury sustained in a motor vehicle accident compared to other mechanisms of injury. This set of data suggests that, although findings earlier in the study indicate
that there was no aversion to patients involved in MVA’s, this may not apply to the pediatric population at large. It is unknown why there was a dislike for pediatric patients injured in MVA’s compared to other mechanisms of injury with the same complaint.

Other factors were evaluated in regards to the visit and treatment process for patients injured in MVA’s to include documentation and prescribing practices. Clinicians did not demonstrate an aversion to documentation related to MVA injuries nor did clinicians prescribe analgesics at a significantly higher rate to patients injured in MVA’s. This may suggest that participating clinicians do not feel burdened by documentation of a MVA-related injury nor feel obligated to provide prescription therapeutics to this population. Although clinicians did not demonstrate that documentation or prescribing practices were significantly different for MVA injuries compared to other mechanisms of injury, qualitative data themes identified were documentation and pain as reasons why clinicians feel patients injured in MVA’s seek care. This suggests that, despite clinician’s perception that patients are seeking care for documentation and pain, this perception does not cause adverse attitudes in this study population.

Clinicians did not have a tendency to transfer patients injured in MVA’s more frequently than other mechanisms of injury. This further supports the idea that clinicians do not have avoidant behavior towards patients injured in MVA’s and is congruent with the self-reported willingness to see MVA’s in urgent care Table 2. Furthermore, when given the opportunity to choose three patients from a fabricated schedule of six patients, clinicians did not demonstrate aversion against MVA patients at a statistically significant rate.

**Qualitative Data**

After reviewing the qualitative data obtained by the three short-answer questions, it was found that clinicians appear to have a conservative approach and refer patients outside their comfort zone as appropriate. Some are uncomfortable with certain types of patients and may tend to over-refer. Most clinicians polled appear to be open-minded about seeing MVA patients, but some have reservations based
on multiple factors, leaving a degree of ambiguity on whether they are truly wanting to see MVA patients

**Table 2.** Clinicians vary in opinion as to why they feel patients seek medical care post-MVA, **Table 3.**

Although pain and diagnosis appear to be the participating clinicians’ perceptions of patient motivating factors for seeking post-MVA medical care, treatment was not mentioned directly. Others, such as friends, family, or emergency medical services, were not mentioned consistently as motivating factors prompting post-MVA patients to seek medical care, **Table 4.**

**Discussion**

The majority of data suggest that we fail to reject the null hypothesis: clinicians have a neutrality towards seeing patients injured in MVA’s. The one exception to this was for pediatric patients injured in MVA’s compared to other mechanisms. Participating clinicians were found to have a dislike for these patients. The reason for this can only be speculated. Further research on this topic would need to be performed to better understand this finding.

Participating clinicians’ self-reported attitudes align with the results gained from this survey and research. One cannot assume that the opposite is true: that clinicians who report a negative attitude will have negative behaviors and further research would be required to determine if this is the case.

Current nationwide efforts have been employed to reduce the amount of documentation clinicians are asked to perform as it is recognized that performing clinical documentation is a significant part of a clinician’s work load. Clinicians in this study did not report a preference against performing documentation for a patient injured in a MVA however documentation was repeatedly mentioned by clinicians in the qualitative data in regards to why they perceive patients seek care post MVA.

Clinicians identified pain as another reason why they perceive patients seek care post MVA. The study shows that clinicians who participated in this research did not prescribe analgesics at a higher rate to a patient injured in a MVA compared to a patient with a similar injury caused by a different mechanism. This finding is significant, however, there may be other confounding variables as well as a low sample size influencing this such as the overall efforts to reduce and limit prescriptions for opiate pain
medications in the urgent care setting. Further questions on this topic could be aimed at whether an opiate prescribing policy or metric influenced the decision to prescribe analgesics to these patients influenced the clinician’s decision.

Clinicians were not found to have the tendency to avoid patients injured in MVA’s nor did they have a tendency to transfer patients injured in MVA’s to the emergency department compared to other mechanisms of injury. The qualitative data set demonstrates that clinicians do have concern for serious injuries in patients involved in MVA’s, consider the severity of the MVA, and consider imaging that may need to be performed to diagnose serious injury. The data suggests that clinicians do not transfer patient’s care to the emergency department due to the fact that the injury was due to a MVA but due to the severity of the MVA and to ensure that the patient receives appropriate care.

Although clinicians identified that they perceived patients seek care post MVA for monetary or legal reasons, this perception by self-report did not interfere with the overall willingness to see patients involved in MVA’s, as supported by the quantitative data. Further research should be performed on how the potential for future litigation impacts clinician attitudes.

The majority of clinicians who participated in this study had more than five years of experience practicing medicine and this may have contributed to the findings of neutrality towards patients injured in MVA’s. It is possible that the more experienced a clinician is, the more comfortable they feel evaluating and treating any injury, regardless of the mechanism. A sample that included clinicians with 1-2 years of experience may have yielded different results however, most urgent care positions require at least two years of experience to be considered for employment.

The greatest proportion of participants in the study were PA’s and the greatest number of participants who finished the survey to completion were NP’s. The majority of participants were advanced practice providers (APP’s). This may have also impacted the findings although the amount of clinical experience the APP’s in this study makes this less likely.
Implications for Practice

The findings in this study may help dispel any unsubstantiated thoughts or claims that UCC clinicians participating in the study have bias in the evaluation and treatment of patients injured in MVA’s. The intent of clinicians in the study’s UCC settings appears to be transparent and perhaps relied upon as a benchmark for managers in these clinical settings.

Clinicians in this study self-identified, repeatedly, that they recognized that documentation for patients is important and that there can be legal implications associated with injuries sustained in a MVA, and that the clinician has no maleficence. While the clinician assumes the responsibility for evaluation and treatment of these patients, they are also sensitive to other aspects that the patient finds important and can have implications for the patient beyond the visit in the UCC. This is relevant to patient-centered care.

Strengths and Weaknesses of the Study

One strength of this study include that it is the first study performed on this topic and is original research. This research also presented challenges as there was no study to compare to for the purposes of establishing a power analysis or foundation. Additionally, there was no population to compare the participants (test group) to, and a control group had to be created that had an assumed lack of bias.

There were several weaknesses to the study including small sample size. The population sampled was not large enough to yield a statistically significant sample to perform independent t-tests or ANOVA tests. Parametric statistical analysis is preferred however there would have been a risk of error due to the small sample size. In the future, this could be corrected by performing a multi-centered study to create a more robust data set.

Another weakness is that this sample only included clinicians who are employed by the same entity. Attitudes of clinicians employed for other entities may have responded differently to the questions.

The length of the survey may have presented as a weakness as not all participants completed all of the questions in the survey and two participants had to be excluded due to lack of participation. It is difficult to mitigate against drop out due to the length of the survey. The length of the survey was due to
asking questions that equally included MVA injuries as well as other mechanisms of injury as to avoid introducing bias within the first 37 questions.

The survey did not equally include questions about pediatric patients and adult patients. Although this was considered during the creation of the survey, it would have lengthened the survey, further risking participant drop-out.

This study was conducted during a global pandemic where it has been widely recognized that clinicians are suffering from burnout and may have been less inclined to participate in an academic study.

Suggestions for Further Research

The sample size in this study is small and a larger population should be sampled using a multi-centered approach. Further analysis can be performed to assess whether or not license type is a predictor of neutrality compared to bias towards patients injured in a MVA in a larger sample. A larger sample would allow for parametric testing.

The pediatric population should be further studied as this was the only group that elicited a significant negative response from clinicians.

Other predictors to include in future similar studies:

1. Has the clinician or family member been injured in a MVA?
2. Has the clinician had a patient with an adverse outcome related to a MVA injury?
3. Has the clinician had litigation related to a MVA?
4. Burnout and complacency
5. Previous work experience in the ED
6. Severity Scoring cross referencing
7. Stated patient intention

One could consider creating a survey that is split into several sections to be completed at different times however the drop-out rate may be increased however the number of participants who fully complete all survey sections may be increased.
This survey could be repeated in a multicentered research project to add power and validity to the dataset acquired in this research project. Results of future studies would still only be generalizable to the UCC’s participating in the study and continues to be a limiting factor.

**Concluding Remarks**

The idea that UCC clinicians may have bias against patients injured in MVA’s is not supported by this study. After statistical analysis was performed on survey responses from fourteen UCC clinicians, it was found that these clinicians are overall neutral. Although there is a significant finding that clinicians dislike seeing a pediatric patient injured in MVA’s it is not clear why.

Overall clinicians are sensitive to the idea that patients may be seeking care due to purposes that are legal, monetary, and document related. This perception did not appear to have an impact on clinician preference against seeing patients injured in MVA’s compared to other mechanisms. Clinician preference towards other mechanisms of injury was not found in this study and did not impact their willingness to choose a patient injured in an MVA.
REFERENCES


https://www.cdc.gov/publichealthgateway/didyouknow/topic/vehicle.html


https://www.cdc.gov/motorvehiclesafety/


### Table 1

<table>
<thead>
<tr>
<th></th>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Scenario C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Md, n)</td>
<td>0.5,8</td>
<td>0.5,8</td>
<td>1.0,8</td>
</tr>
<tr>
<td>Test (Md, n)</td>
<td>0.8</td>
<td>0.8</td>
<td>1.0,8</td>
</tr>
<tr>
<td>U</td>
<td>16</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Z</td>
<td>-1.852</td>
<td>-0.916</td>
<td>-1.464</td>
</tr>
<tr>
<td>P</td>
<td>0.064</td>
<td>0.36</td>
<td>0.143</td>
</tr>
<tr>
<td>R</td>
<td>0.46</td>
<td>0.229</td>
<td>0.366</td>
</tr>
</tbody>
</table>
Table 2

How do you feel about evaluating and treating patients who have been involved in motor vehicle accidents?

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be challenging even though usually low risk of significant injury</td>
</tr>
<tr>
<td>Less than 30 mph and able to move neck more than 45 degrees</td>
</tr>
<tr>
<td>I don't mind. I prefer not to see pediatric patients post MVA.</td>
</tr>
<tr>
<td>no issue</td>
</tr>
<tr>
<td>mild MVA's are ok</td>
</tr>
<tr>
<td>I am comfortable seeing patients like this in a resource limited (Urgent Care) environment.</td>
</tr>
<tr>
<td>It depends on speed involved and symptoms. It does make me nervous especially because we can't do any c-spine x-rays in our urgent care and then I would need to send to ED.</td>
</tr>
<tr>
<td>Always concerned about risks for missing DX due to lack of imaging avail in UCC.</td>
</tr>
<tr>
<td>Difficult due to legal involvements and people sometimes exaggerating</td>
</tr>
</tbody>
</table>
Table 3

<table>
<thead>
<tr>
<th>Why do you feel patients involved in MVA's seek medical care?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just want to be sure they are OK, musculoskeletal injury and sometimes friends have encouraged them to get checked out</td>
</tr>
<tr>
<td>Attempt to avoid the ED while still documenting their problem.</td>
</tr>
<tr>
<td>Either pain, documentation, or peace of mind, or a combination.</td>
</tr>
<tr>
<td>fear of serious injury</td>
</tr>
<tr>
<td>tell their story</td>
</tr>
<tr>
<td>Concern about their injuries.</td>
</tr>
<tr>
<td>1. to make sure they are ok. 2. Some patients want money or free massage or exams for litigation purposes.</td>
</tr>
<tr>
<td>Insurance reasons. Sometimes pain, and rule out.</td>
</tr>
<tr>
<td>To make sure legally covered for claims</td>
</tr>
</tbody>
</table>
Table 4

In your opinion, what prompts patients involved in MVA's to seek medical care?

<table>
<thead>
<tr>
<th>Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musculoskeletal pain, rule out serious injury</td>
</tr>
<tr>
<td>Documentation</td>
</tr>
<tr>
<td>Either pain, documentation, or peace of mind, or a combination.</td>
</tr>
<tr>
<td>back/neck pain, documentation for litigation</td>
</tr>
<tr>
<td>worry</td>
</tr>
<tr>
<td>Concern about their injuries.</td>
</tr>
<tr>
<td>1. to make sure they are ok. 2. Some patients want money or free massage or exams for litigation purposes.</td>
</tr>
<tr>
<td>Often documentation for insurance claims.</td>
</tr>
<tr>
<td>Possible compensation</td>
</tr>
</tbody>
</table>
What License and Certification do you hold?

<table>
<thead>
<tr>
<th>License</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>6</td>
</tr>
<tr>
<td>NP</td>
<td>4</td>
</tr>
<tr>
<td>MD</td>
<td>3</td>
</tr>
<tr>
<td>DO</td>
<td>1</td>
</tr>
</tbody>
</table>
Distribution of >5 years

0: 28.6%
1: 71.4%

Observed Sample

Pediatric 5-Point Likert Scale

Control

Test

| 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 |

Diagram 3

Diagram 4
APPENDICES

UNM IRB Approval

Human Research Protections Program

February 15, 2021
Stephen Roper
505-272-2375
Fax: 505-272-8901
sroper@salud.unm.edu

Dear Stephen Roper:

On 2/15/2021, the HRRC reviewed the following submission:

Type of Review: Initial Study
Title of Study: Attitudes Towards Evaluating and Treating Patients in Urgent Care
Investigator: Stephen Roper
Study ID: 21-046
Submission ID: 21-046
IND, IDE, or HDE: None

Submission Summary: Initial Study

Documents Approved: • Consent
• HRP-583
• Recruitment Email
• Survey

Review Category: EXEMPTION: Categories (2)(ii) Tests, surveys, interviews, or observation (non-identifiable)

Determinations/Waivers: Provisions for Consent are adequate.
HIPAA Authorization Addendum Not Applicable.

Submission Approval Date: 2/15/2021
Approval End Date: None
Effective Date: 2/15/2021

The HRRC approved the study from 2/15/2021 to inclusive. If modifications were required to secure approval, the effective date will be later than the approval date. The “Effective Date” 2/15/2021 is the date the HRRC approved your modifications and, in all cases, represents the date study activities may begin.

Because it has been granted exemption, this research is not subject to continuing review.

505.272.1129 | The University of New Mexico Health Sciences Office of Research Human Research Protections Program
1 University of New Mexico | MSC08 4560 | Albuquerque, NM 87131
hsc.unm.edu/research/hrpo
Survey Tool

This survey is divided into eight sections of questions. You will be notified when you have begun a new section. Click 'Next' to begin. You will have the option to save your answers and return later to finish the survey. You will have until the end of the day on March 19th, 2021 to finish.

**Attitudes Towards Evaluating and Treating Patients in Urgent Care**

1) What License and Certification do you hold?
   - MD
   - DO
   - NP
   - PA
   - Other

2) How many years have you been practicing medicine?
   - 0-1
   - 2-5
   - 5+

3) Do you practice in the urgent care setting?
   - Yes
   - No

4) Which of the following patients do you see? (select all that apply)
   - Adult
   - Pediatric
## Section Two.

**We would like to know more about what you might not prefer.**

<table>
<thead>
<tr>
<th>5) Which one of the following chief complaints might you not prefer seeing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Fall from horse</td>
</tr>
<tr>
<td>○ Fall from motorcycle</td>
</tr>
<tr>
<td>○ Fall from ladder</td>
</tr>
<tr>
<td>○ Fall from balance beam</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6) Which one of the following chief complaints might you not prefer seeing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Neck pain due to injury on amusement park ride</td>
</tr>
<tr>
<td>○ Neck pain due to motor vehicle accident on a residential street</td>
</tr>
<tr>
<td>○ Neck pain after accident on riding lawn mower</td>
</tr>
<tr>
<td>○ Neck pain after falling from skis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7) Which one of the following chief complaints might you not prefer seeing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Low back pain after car accident three hours ago</td>
</tr>
<tr>
<td>○ Low back pain after forklift accident at work this morning</td>
</tr>
<tr>
<td>○ Low back pain after attempting a back flip at cheer practice this morning</td>
</tr>
<tr>
<td>○ Low back pain after falling off a jet ski a few hours ago</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8) Which one of the following chief complaints might you not prefer seeing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Head pain after wrecking truck in ditch</td>
</tr>
<tr>
<td>○ Head pain after fall while hiking</td>
</tr>
<tr>
<td>○ Head pain after coworker dropped tool on head</td>
</tr>
<tr>
<td>○ Head pain after being hit with baseball</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9) Which one of the following chief complaints might you not prefer seeing?</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ Wrist pain and back pain in a passenger riding in a van who was struck from the side in heavy traffic.</td>
</tr>
<tr>
<td>○ Arm pain and low back pain in a person learning to surf who fell onto rocks in the water.</td>
</tr>
<tr>
<td>○ Hand pain and mid back pain in a person who slipped and fell on wet stairs at work in a grocery store.</td>
</tr>
<tr>
<td>○ Elbow pain and back pain in a homeowner who fell while attempting to build a shed in the backyard of his home.</td>
</tr>
</tbody>
</table>
### Section Three.
**We would like to know more about what you do prefer.**

<table>
<thead>
<tr>
<th></th>
<th>Which one of the following chief complaints might you prefer to see?</th>
</tr>
</thead>
<tbody>
<tr>
<td>10)</td>
<td>Arm pain from playing volleyball</td>
</tr>
<tr>
<td></td>
<td>Arm pain from working on farm</td>
</tr>
<tr>
<td></td>
<td>Arm pain from car accident</td>
</tr>
<tr>
<td></td>
<td>Arm pain from diving in pool</td>
</tr>
<tr>
<td>11)</td>
<td>Playing basketball, third finger injury, possibly broken</td>
</tr>
<tr>
<td></td>
<td>Setting up tent, pinched finger and still having pain</td>
</tr>
<tr>
<td></td>
<td>Shut finger in file cabinet at work, swelling and bruise</td>
</tr>
<tr>
<td></td>
<td>Finger bent back on steering wheel during accident, cannot bend finger</td>
</tr>
<tr>
<td>12)</td>
<td>Toddler fell off slide; mom wants a check up</td>
</tr>
<tr>
<td></td>
<td>Toddler's stroller tipped over; mom wants a check up</td>
</tr>
<tr>
<td></td>
<td>Toddler knocked over by dog; mom wants a check up</td>
</tr>
<tr>
<td></td>
<td>Toddler in rear car seat low speed MVA; mom wants a check up</td>
</tr>
<tr>
<td>13)</td>
<td>Car accident, hurt wrist</td>
</tr>
<tr>
<td></td>
<td>Work accident, hurt wrist</td>
</tr>
<tr>
<td></td>
<td>Car accident, neck pain</td>
</tr>
<tr>
<td></td>
<td>Work accident, neck pain</td>
</tr>
<tr>
<td>14)</td>
<td>One week follow up MVA</td>
</tr>
<tr>
<td></td>
<td>One week follow up fall from stairs</td>
</tr>
<tr>
<td></td>
<td>One week follow up football injury</td>
</tr>
<tr>
<td></td>
<td>One week follow up ladder fall at work</td>
</tr>
</tbody>
</table>
### Section Four

**We would like to know more specific information about your preferences.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>15) Your patient sustained a distal volar radial fracture after he fell from a skateboard. Which treatment plan are you most likely to implement?</td>
<td>- OTC analgesia, splint, three day follow up with orthopedics&lt;br&gt;- Prescription analgesia, splint, follow up in urgent care within one week&lt;br&gt;- Splint, follow up with primary care in one week, OTC analgesia PRN&lt;br&gt;- Prescription analgesia, splint, three day follow up with orthopedics</td>
</tr>
<tr>
<td>16) Your patient sustained a fracture of the ulnar styloid after rear-ending another vehicle in traffic. Which treatment plan are you most likely to implement?</td>
<td>- OTC analgesia, splint, three day follow up with orthopedics&lt;br&gt;- Prescription analgesia, splint, follow up in urgent care within one week&lt;br&gt;- Splint, follow up with primary care in one week, OTC analgesia PRN&lt;br&gt;- Prescription analgesia, splint, three day follow up with orthopedics</td>
</tr>
</tbody>
</table>
| 17) Which case would you anticipate you are most likely to transfer to the emergency department from urgent care? | - Adult male who was the driver involved in a low to moderate speed MVA with complaint of "rib pain"
- Adult male who was tackled while playing football at his local college with "right rib pain"
- Adult male who fell from his porch while using a power washer with "rib pain"
- Adult male who had a heavy box fall on him at work while unloading a truck complaining of "left rib pain" |
| 18) Which case might you not prefer having to document? | - A child who was in his nanny's van on the way to school when the van was rear-ended.<br>- A child who fell from a tree at summer camp while on an outing with his camp instructor.<br>- A child who fell from playground equipment at school with the teacher witnessing the fall.<br>- A child who was involved in a BMX bike accident during a competition at the local track with his coach.<br>- I have no preference. |
| 19) You have a patient complaining of acute on chronic back pain. Which of the following patients might you prefer seeing? | - "I picked up my child and now my back hurts. I always have back pain after someone crashed into my car ten years ago when I was on a road trip but this is different."
- "I picked up my dog to put him in the car and now my back hurts. I always have back pain after playing football in high school but this is different."
- "I picked up a propane tank and now my back hurts. I always have back pain after someone hit me with a machine at work a few years ago but this is different."
- "I picked up a heavy box and now my back hurts. I always have back pain after I fell rock climbing several years ago but this is different." |
<table>
<thead>
<tr>
<th>Question</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
<th>Option D</th>
</tr>
</thead>
<tbody>
<tr>
<td>20) Which case might you gladly see in follow up in urgent care in one week?</td>
<td>A female in her 20's who hurt her wrist while playing tennis and sustained a fall.</td>
<td>A female in her 20's who hurt her wrist while working at a veterinarian's office as a technician lifting a large dog.</td>
<td>A female in her 20's who hurt her wrist while she was moving furniture into her new apartment.</td>
<td>A female in her 20's who hurt her wrist on her steering wheel when she accidentally hit the car in front of her.</td>
</tr>
<tr>
<td>21) Which case might you gladly see in follow up in urgent care in one week?</td>
<td>Ankle pain after stepping wrong on platform at work</td>
<td>Ankle pain after being hit by a car in the parking lot and falling down</td>
<td>Ankle pain after falling down at work because someone left a box in the middle of the floor</td>
<td>Ankle pain after a motorcycle fell onto ankle in a low-speed accident</td>
</tr>
<tr>
<td>22) Which case might you prefer to see?</td>
<td>Knee pain after wrecking a dirt bike on a trail. The patient states &quot;I blame the person who made the trail!&quot;</td>
<td>Knee pain after wrecking a motorized scooter delivering food. The patient states &quot;I blame my employer for making me drive this thing!&quot;</td>
<td>Knee pain after wrecking a motorcycle driving to work. The patient states &quot;I blame the person who ran me off the road!&quot;</td>
<td>I have no preference</td>
</tr>
<tr>
<td>23) Which case might you not prefer to see?</td>
<td>A shoulder injury after falling from a skateboard</td>
<td>A hip injury after falling off scaffolding at a construction site</td>
<td>A shoulder injury sustained during a T-bone car accident</td>
<td>A hip injury after a cheerleading accident</td>
</tr>
</tbody>
</table>
Section Five.
Thank you for continuing this survey! Your input is valued.

We would like to know more about what you like and dislike.

On the scale listed below, please rate your opinion towards the following scenarios:

1 = Strongly Dislike  
2 = Dislike  
3 = Neutral  
4 = Like  
5 = Strongly Like

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Rating Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>24) A pediatric patient fell off the couch, complaining of neck and back</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>25) A pediatric patient riding in a truck that was struck by vehicle,</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>complaining of neck and back pain</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>26) A pediatric patient who fell off the trampoline at the gym,</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>complaining of neck and back pain</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>27) A woman seeking care because someone hit her car and caused a leg</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>injury</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>28) A pediatric patient who slipped on the stairs at a friend's house,</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>complaining of neck and back pain</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>29) A woman is seeking care because someone's dog bit her leg</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>30) A woman is seeking care because she fell while getting off the ski</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
<tr>
<td>lift, injuring her leg</td>
<td><img src="image" alt="Rating Options" /></td>
</tr>
</tbody>
</table>
31) A woman who is seeking care her soccer teammate fell into her, causing the patient to injure her leg

Circle your response:

- 1 = Strongly Dislike
- 2 = Dislike
- 3 = Neutral
- 4 = Like
- 5 = Strongly Like
# Section Six.
The following questions are about hypothetical clinical scenarios.

You are working at urgent care with another provider. You have the option of choosing which 50% of the patients you see in clinic today. Please choose which three patients you will sign up to see.

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Patients to Choose</th>
</tr>
</thead>
<tbody>
<tr>
<td>32)</td>
<td>MVA, work injury ladder, baseball injury arm, wrist pain after bowling, work injury slipped at café, finger injured by drill</td>
</tr>
<tr>
<td>33)</td>
<td>Crushed finger at work, foot pain at dance practice, hand pain from airbag, wrist injury lifting boxes for work, lower leg pain from soccer, ankle injury from MVA</td>
</tr>
<tr>
<td>34)</td>
<td>Abrasion face from fall, burn of hand from airbag, cat bite at work, abrasion from seatbelt, bump on cheek, road rash hip and leg</td>
</tr>
<tr>
<td>35)</td>
<td>T-boned at stop sign, side pain, fall from patio, rib pain, pushed off swing, stomach pain, bruise of chest, MVA, check up, MVA, unWitnessed fall, limping</td>
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<td>36)</td>
<td>Punched wall, broken hand, bricks fell on hand at work, fell onto hand yesterday, shut hand in door at school, hurt hand lifting heavy object, hand pain after dog bite</td>
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<td>37)</td>
<td>Fall, hurt shoulder and hip, back pain and elbow pain after lifting rock in yard, knee and coccyx pain after fall in river, neck pain, car wreck one week ago, rib pain and bruise on face, fell on tub, bilateral wrist pain and low back pain after weightlifting</td>
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Section Seven.
You're almost done! This section is comprised of four short questions.

38) Please select the phrases that most accurately reflect your opinion:
- ☐ Sports related injuries are interesting to me
- ☐ Work related injuries are interesting to me
- ☐ Recreation related injuries are interesting to me
- ☐ Motor vehicle Accident injuries are interesting to me

39) Please select the phrases that most accurately reflect your opinion:
- ☐ I do not mind seeing patients in follow up for sports related accidents
- ☐ I do not mind seeing patients in follow up for motor vehicle accidents
- ☐ I do not mind seeing patients in follow up for work related accidents
- ☐ I do not mind seeing patients in follow up for recreational accidents

40) Please select the phrases that most accurately reflect your opinion:
- ☐ I do not like seeing patients involved in motor vehicle accidents
- ☐ I do not like seeing patients involved in work related accidents
- ☐ I do not like seeing patients involved in sports related accidents
- ☐ I do not like seeing patients involved in recreational accidents

41) Please select the phrases that most accurately reflect your opinion:
- ☐ I like seeing patients involved in motor vehicle accidents
- ☐ I like seeing patients involved in work related accidents
- ☐ I like seeing patients involved in sports related accidents
- ☐ I like seeing patients involved in recreational accidents
Section Eight.
This is the final section. We appreciate your participation in this study. In this section we would like to give you the opportunity to provide answers in your own words. You may answer with single words, phrases, or complete sentences.

To preserve the integrity of this study, we ask that you do not discuss the following three questions with others who have not yet completed this survey.

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<tr>
<td>42) How do you feel about evaluating and treating patients who have been involved in motor vehicle accidents?</td>
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<td>43) Why do you feel patients involved in MVA’s seek medical care?</td>
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<td>44) In your opinion, what prompts patients involved in MVA’s to seek medical care?</td>
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</table>

By clicking 'submit' you consent to participating in this study.