

**UNITED STATES DISTRICT COURT  
MIDDLE DISTRICT OF FLORIDA  
TAMPA DIVISION**

**FRED YOUNG and JEFF FIRMAN,**

**Plaintiffs,**

**v.**

**Case No: 8:22-cv-2894-MSS-CPT**

**PANERA, LLC,**

**Defendant.**

---

**ORDER**

**THIS CAUSE** comes before the Court for consideration of Plaintiffs' Motion to Limit Testimony of Defendant's Expert Ming Xiao, Ph.D. (the "Motion"), (Dkt. 43), and Defendant's response thereto. (Dkt. 50) Upon consideration of all relevant filings, case law, the Parties' arguments at the pretrial conference held before the Court on May 30, 2024, and being otherwise fully advised, the Court **ORDERS** as follows.

Plaintiffs request the Court exclude certain testimony of Defendant's biomechanical engineering expert, Dr. Ming Xiao. Plaintiffs argue Dr. Xiao does not cite to any scientific study to support his testimony that the forces Plaintiffs experienced in the collision are analogous to those resulting from certain activities of daily living, such as running, jumping, plopping in a chair, and picking up an object. (Dkt. 43 at 2) In the alternative, Plaintiffs state, "Assuming that these specific analogies were not simply made up by Dr. Xiao, a review of the studies listed in the report's appendix reveals a likely source for their insertion in his report." (Id. at 5) Plaintiffs

then note that one study cited by Dr. Xiao, the Allen 1994 study, was excluded by a judge in the Middle District of Florida because the results of the study were found not to have been generally accepted by the scientific community and because the study's probative value was outweighed by its potential to mislead or confuse the jury. (Id. at 6) Worley v. State Farm Mut. Auto. Ins. Co., No. 12-cv-1041, 2013 WL 6478425 (M.D. Fla. Dec. 10, 2013).

Defendant maintains that Dr. Xiao's analogies are based upon reliable scientific studies. (Dkt. 50) First, Defendant defends the Allen 1994 study. (Id. at 11-13) Defendant asserts the study was originally published in a journal with a rigorous peer-review process and has been cited 130 times by other peer-reviewed scientific articles. (Id. at 12-13) Defendant maintains "the methodologies and conclusions in the Allen 1994 study have been repeated numerous times and validated by subsequent peer-reviewed scientific studies." (Id. at 14) Defendant also notes that Dr. Xiao cites 98 other peer-reviewed studies. (Id.) These studies are examples of biomechanical engineers and scientists using similar methodology regarding comparison of activities of daily living. (Id.) Defendant summarizes the findings of four other peer-reviewed studies that Dr. Xiao cited to support his conclusions which demonstrate "it is widely accepted in the scientific community to compare the mechanical loads experienced in activities of daily living with the ones in motor vehicle accidents." (Id. at 15-18) Defendant distinguishes the circumstances in this case from the circumstances that led the judge in Worley to exclude testimony based on the Allen 1994 study. (Id. at 19-20) Finally, Dr. Xiao testifies in an affidavit that he was recently permitted to include

the challenged analogies in his testimony before the U.S. District Court in the Southern District of Florida. (Dkt. 50-2 at ¶ 26)

The Court disagrees with Plaintiffs' characterization of Dr. Xiao's report. While Dr. Xiao does not provide citations for each statement in the report analogizing the mechanical loads Plaintiffs allegedly experienced to those experienced in daily activities, Dr. Xiao cites several peer-reviewed studies that support his analogies, four of which Dr. Xiao summarizes in his affidavit. (Dkt. 50-2 at ¶¶ 20-23) Additionally, contrary to Plaintiffs' concern that Dr. Xiao's conclusions are based solely on the Allen 1994 study, which Plaintiffs allege is unreliable because the study was based on a sample size of only young, healthy adults, Dr. Xiao explains in his report,

Occupant motions in response to motor vehicle accidents . . . have been extensively studied by biomechanical engineers through staged crash tests using human volunteers, post-mortem human surrogates, and anthropomorphic test devices. To this date, published peer-reviewed literature has over 2,000 human volunteer exposures subjected to rear-end and frontal collision tests (Cormier et al., 2018; Krafft et al., 2000; Mertz and Patrick, 1971; Beeman et al., 2012; Dehner et al., 2013). The volunteers varied in age (up to 68 years old), gender, height, weight, and medical conditions. Some volunteers had known pre-existing conditions such as spinal disc degeneration. Some were tested under out of normal seating positions, such as leaning forward and turning to the side (Keifer et al. 2005). Some volunteers were tested by not bracing for the impact and were verified to this using surface electrodes to monitor muscle activity.


(Dkt. 43-1 at 18) Moreover, the case cited by Plaintiffs, Worley, is distinguishable from this case. In Worley, the court noted the defendant's expert's testimony was based solely on the Allen 1994 study. 2013 WL 6478425, at \*4. The plaintiff identified a review published in 1999 that severely criticized the Allen 1994 paper, and the defendant did not respond with evidence that the expert's methodology was generally

accepted or reliable. Id. The circumstances here are different. Defendant summarizes several additional studies upon which Dr. Xiao relies that were published within the last 10 years and show that comparisons of forces in motor vehicle collisions and those in daily activities are generally accepted in the scientific community. For these reasons, the Court declines to exclude this portion of Dr. Xiao's testimony.

Dr. Xiao is permitted to testify regarding his comparisons of the mechanical loads Plaintiffs would have experienced to those experienced when engaging in activities such as running, jumping, plopping in a chair, and picking up an object. As Defendant notes, this testimony will relate the impact Plaintiffs experienced to "activities with which the jury has experience and can relate to." (Dkt. 50 at 20) Any challenges to Dr. Xiao's testimony may be explored on cross-examination.

Accordingly, the Court **ORDERS** that Plaintiffs' Motion to Limit Testimony of Defendant's Expert Ming Xiao, Ph.D. (the "Motion"), (Dkt. 43), is **DENIED**.

**DONE and ORDERED** in Tampa, Florida, this 1st day of August 2024.

  
\_\_\_\_\_  
MARY S. SCRIVEN  
UNITED STATES DISTRICT JUDGE

**Copies furnished to:**  
Counsel of Record  
Any Unrepresented Person