

Background

- Dance intensives are an integral part of many dancers' training regimens involving multiple weeks of rigorous dance training in various dance styles.
- Much of the recent literature in dance medicine has focused on quantifying and describing the injuries seen in dancers.
- A number of studies found that the most prevalent injury locations were the ankle and foot, followed by the hip, low back, and knee. Of these injuries, the majority were attributed to overuse rather than trauma.
- Currently, there is a gap in dance medicine literature in regard to prevention and treatment of injuries sustained during intensive dance programs.

Purpose

- The purpose of this study was to analyze demographic data, past medical history, and dance related information collected from participants who presented to a physical therapy Dance Medicine Walk-In Clinic (DMWC) during a summer dance intensive.

Methods

- The DMWC offered onsite physical therapy services for the management of musculoskeletal injuries to participants, faculty, and staff of a summer dance intensive.
- Past medical history, demographic data and dance-specific information were collected on attendees of the DMWC using an intake form the participants filled out upon arrival.
- Risk ratios, multiple logistic regression, and survival curves were used to assess outcomes of interest.

Predictors of Multiple Evaluations

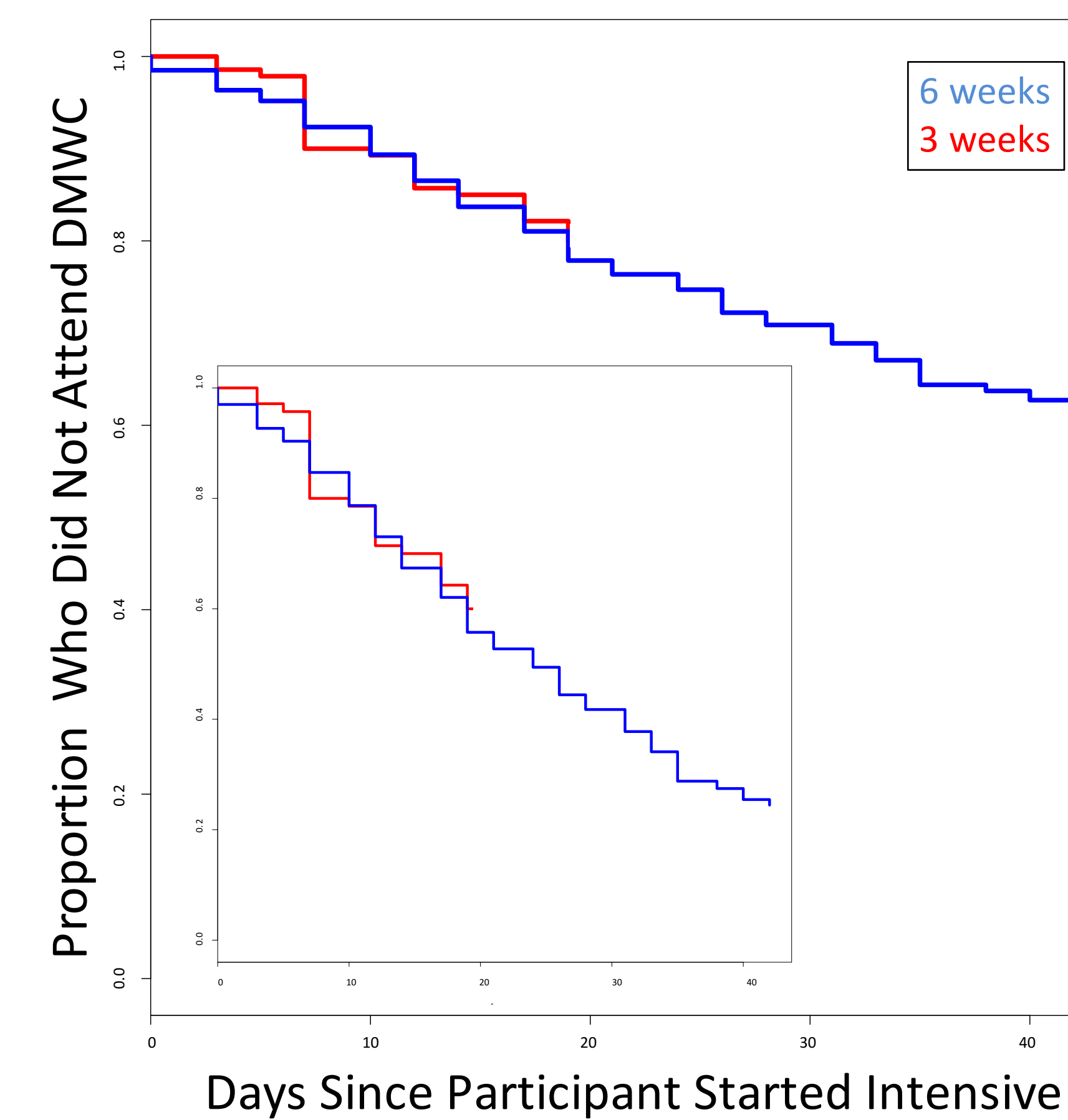
Predictor Variable	Adjusted Odds Ratio
PMH	
0 PMH (ref)	1.00
1 PMH	2.15 (0.97-5.00)
2 PMH	3.92 (1.67-9.58)*
≥ 3 PMH	5.06 (2.07-13.00)*
Injured Body Region	
Ankle (ref)	1.00
Arm and Hand	1.04 (0.16-5.90)
Foot	0.31 (0.08-1.00)*
Head and Neck	1.60 (0.43-5.90)
Knee	0.35 (0.13-0.90)*
Lower Leg	0.70 (0.17-2.77)
Lumbar Spine	0.29 (0.08-0.96)*
Pelvis and Hip	0.71 (0.28-1.80)
Shoulder	2.45 (0.81-7.72)
Thoracic Spine and Ribs	1.04 (0.21-4.86)
Upper Leg	0.81 (0.14-3.78)
First attendance IR vs. PR	
IR (ref)	1.00
PR	2.42 (1.37-4.32)*
Intercept	0.32 (0.08-1.19)

* Indicates significance at $\alpha=0.05$
 Odds ratios reported with 95% confidence intervals, adjusted for age and first day of evaluation.
 OR >1.00 indicates greater odds of attending for multiple evaluations.

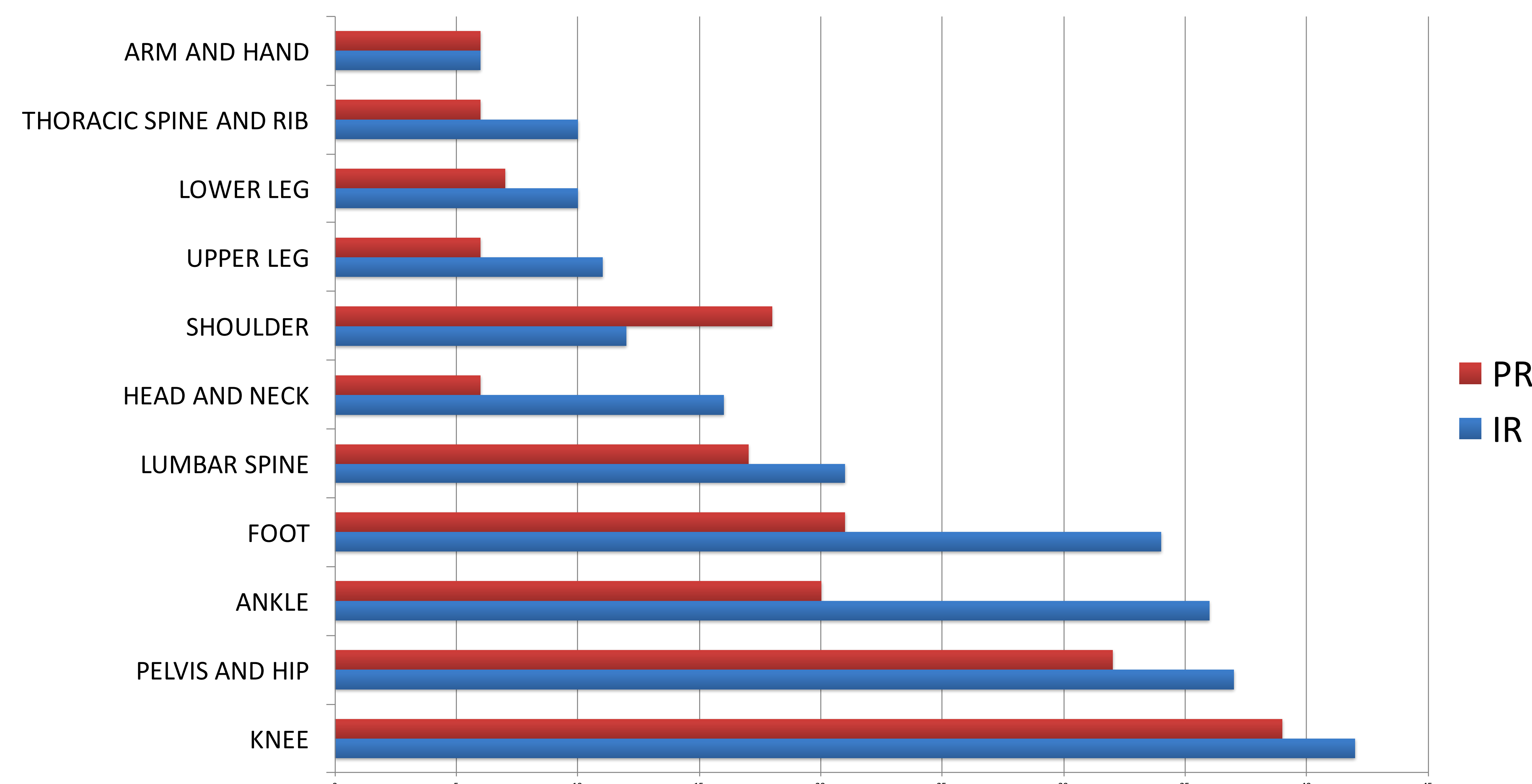
Risk of DMWC Attendance

Year		Gender		Session	
2013	2014	M	F	3 wk	6 wk
39%	33%	31%	37%	30%	37%

* Includes only 3 and 6 week session attendees



Number of PR vs. IR Injuries by Body Region



Results

- The most commonly injured body regions were the knee, pelvis/hip, ankle, and foot.
- After adjusting for age and days since the start of the intensive, a greater number of self-reported past musculoskeletal injuries, and first attendance for a pre-intensive (PR) rather than an intensive related (IR) injury increased the odds of attending for multiple evaluations. An increase in the number of past musculoskeletal injuries also increased the odds of returning for follow-up appointments.
- There was no significant difference in the risk of attendance based on gender, session length, or year of participation.
- Males were significantly more likely (OR 3.14) to attend for evaluation only.

Conclusion

- Previous injury has been proposed as a risk factor for future injury due to the changes in motor control following injury.
- Consistent with current literature, the two variables predictive of risk of multiple injuries were increased number of past musculoskeletal injuries and presenting to clinic for a previous injury.
- Identification of previous musculoskeletal injury appears to be a useful component of participant screening at a dance intensive.