

Running Related Injuries in Irish Runners



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Introduction

The popularity of recreational running continues to grow nationally. Previous international research has demonstrated a very high risk of running related injuries (RRIs) in recreational runners. These injuries pose a barrier to continued training, as well as to the physical and mental health benefits associated with running. Currently, there is a paucity of epidemiological information on Irish recreational runners. Therefore, the aim of this study is to gain an understanding of the prevalence, location, type and severity of RRI's in recreational runners in Ireland.



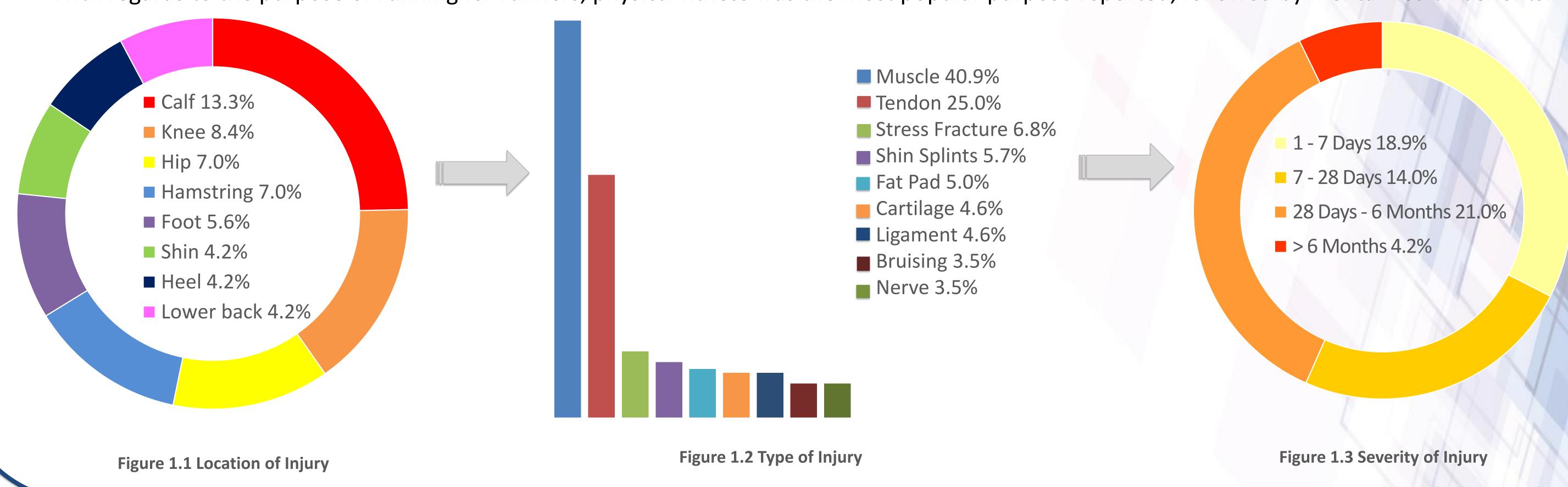
Methods

- 86 male and 56 female recreational runners (mean age 40.78 ± 8.65 years) completed an online survey which captured information about previous injury history within the past two years.
- An RRI was defined as any running-related (training or competition) musculoskeletal pain in the lower limbs or lower back that caused a restriction on or stoppage of running (distance, speed, duration, or training) for at least 7 days or 3 consecutive scheduled training sessions, or that required the runner to consult a physician or other health professional^{1,2}.
- SPSS was used to generate descriptive statistics of the group.



Results

- 62% of the participants reported to have experienced at least one running related injury within the last 2 years, with 35% of runners suffering 2 or more injuries.
- 7.7% of runners were subject to a re-injury of the same type and same location, with 73% of these re-injuries occurring within 2-12 months after returning to activity.
- 22% of runners stated that they do not perform a warm up of any kind, 46% sometimes perform a warm up, and 32% said they always do a warm up.
- With regards to the purpose of running for runners, physical fitness was the most popular purpose reported, followed by mental health benefits.



Discussion

It is evident that a large number of Irish runners have been affected by an RRI within the past 2 years. This rate of RRI is in line with the results of a systematic review which showed incidence rates of up to 79.3% in runners³. Similar to Buist et al. (2008)⁴, the calf and the knee were the most common site of injury, followed by several other locations including the hip, hamstrings and foot. With such a close incidence rate amongst multiple locations, this may highlight the need to rehabilitate the whole kinetic chain rather than one specific area.

Muscle and tendon injuries were the highest reported injury type, which may not be too surprising given that only 32% of the runners reported to always warm up before running.

In terms of injury severity, it was noted that 21% of injured runners experienced a time loss of between 28 days and 6 months. This has the potential to take a significant toll on both the physical fitness and mental health of runners, especially given that both of these health benefits were the highest reported purposes for running amongst this cohort.

In summary, the results of this study highlight how common and severe RRI's can be amongst this cohort. In light of this, research investigating potential RRI risk factors is warranted to develop and implement running related injury prevention programmes for recreational runners.

References

1. Yamato, T.P., Saragiotto, B.T. and Lopes, A.D. 2015. A consensus definition of running-related injury in recreational runners: A modified delphi approach. Journal of Orthopaedic & Sports Physical Therapy, 45(5), pp.375-380.

2. Malisoux, L., Nielsen, R.O., Urhausen, A. and Theisen, D. 2015. A step towards understanding the mechanisms of running-related injuries. Journal of Science and Medicine in Sport, 18(5), pp.523-528.

3. Buist, I., Bredeweg, S.W., Bessem, B., van Mechelen, W., Lemmink, K.A. and Diercks, R.L. 2010. Incidence and risk factors of running-related injuries during preparation for a 4-mile recreational running event. British Journal of Sports Medicine, 44(8), pp.598-604.

4. van Gent, R.N., Siem, D., van Middelkoop, M., van Os, A.G., Bierma-Zeinstra, S.M. and Koes, B.W. 2007. Incidence and determinants of lower extremity running injuries in long distance runners: A systematic review. British Journal of Sports Medicine, 41(8), pp.469-80; discussion 480.





