Background
In a review by Orr et al., on soldier load carriage injuries, no research investigating load carriage injuries in Chinese military soldiers was included. A potential reason for this lack of inclusion of studies of Chinese soldiers may have been language bias, as only papers published in English were included in the review and all of the search terms were English language terms. In order to address this gap, a bi-lingual review including both English and Chinese search terms and academic databases were used to identify studies of load carriage injuries in Chinese military soldiers.

Methods
Using a three stage approach, English and Chinese search terms were entered into online databases including: English-language databases (PubMed, EBSCO and Web of Science) and Chinese-language databases (CNKI and CQVIP) (See Table 1).

Titles and abstracts of all articles identified in the searches were screened to remove duplicates and articles that clearly did not meet eligibility criteria for the review. The remaining full text articles subject to dedicated inclusion criteria and exclusion criteria (See Figure 1).

Results
A total of 1613 records were extracted from the databases (See Figure 1).

– English n=1538,
– Chinese n=75

Following initial screening, 127 full-text articles were assessed for eligibility. While eight (n=8) English research studies reported on load carriage injuries, no research investigating load carriage injuries was identified in either the Chinese literature databases or in the Chinese Army as a population.

None of the eight (n=8) studies published in English were found on the Chinese databases, while none of the Chinese articles found to discuss load carriage biomechanics were found on English databases.

Discussion
No research investigating injuries associated with load carriage in a Chinese soldier population was identified in the literature review. Research in Western and Chinese Armies strongly suggest similarities in biomechanical impacts of load carriage.

As such, the patterns of injuries that are sustained by Western armies would conceivably be quite similar and incurred by Chinese Army soldiers. However, potential differences in equipment type and other cultural and morphological differences may potentially lead to differences in potential for, and nature of, load carriage associated injuries.

This research demonstrates the potential for language bias in reviews employing single language databases.

Implications
Chinese soldiers may suffer similar load carriage injuries to soldiers of Western armies. Injury prevention and mitigation strategies and rehabilitation and return-to-work practices, like those used by Western armies, may be of value when treating load carriage induced injuries in Chinese soldiers. Epidemiological studies, focusing specifically on load carriage injuries sustained by Chinese soldiers, are needed to validate the assumption that rates and patterns of load carriage injuries in the Chinese Army are similar to those in Western armies.

References
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