



Long-term Outcomes and Survivorship Following Primary Hip Arthroscopy: A Systematic Review

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INTRODUCTION

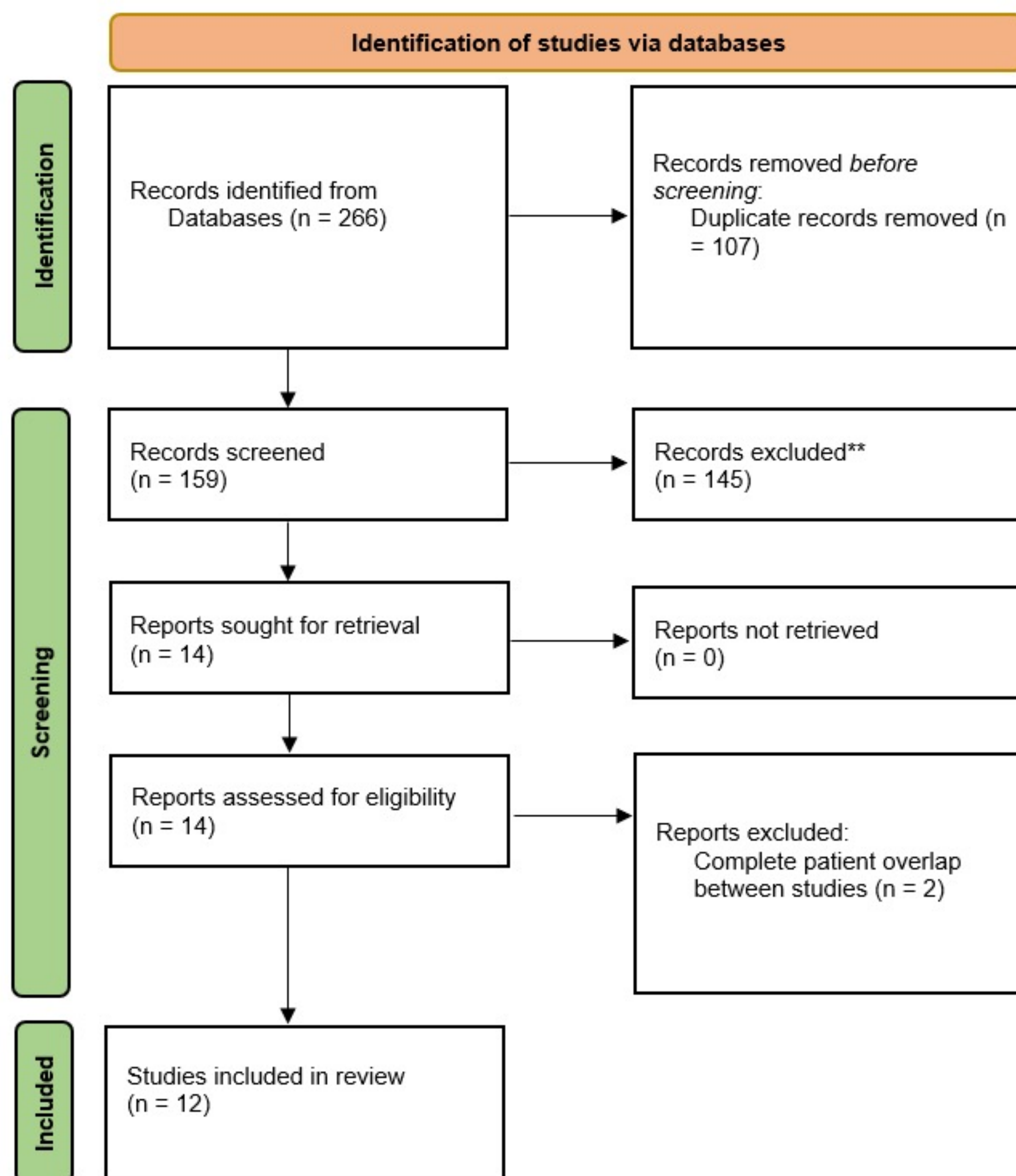
At two-year follow-up, multiple studies have reported significant improvement in postoperative outcomes and high rates of non-conversion to THA as high as 98.9%. This trend is consistent at minimum five-year follow-up with multiple studies reporting high rates of patient satisfaction and rates of non-conversion to THA as high as 93%. Recent studies have demonstrated that hip arthroscopy is durable at minimum 10-year follow-up. However, the previous review does not account for the recent spike in literature on long-term outcomes after hip arthroscopy which necessitates an updated review

AIM

- 1) to evaluate minimum 10-year PROs (patient-reported outcomes) and survivorship after primary hip arthroscopy
- 2) to identify predictors of failure for secondary arthroscopy and conversion to total hip arthroplasty (THA).

METHOD

A systematic review of the literature was conducted with the following keywords: "hip arthroscopy," "long-term," "outcomes," "ten-year," "survivorship," "10-year," "15-year," "fifteen-year," "20-year," "twenty-year," and "femoroacetabular impingement" in PubMed and Cochrane in March 2022 using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. Level I to Level IV were included and reported on minimum 10-year outcomes or greater after primary hip arthroscopy. Long-term studies were defined as minimum 10-year follow-up in accordance with established standards in the literature. Case reports, review articles, technique articles, and opinion articles were excluded.



RESULTS

- Twelve studies met the inclusion criteria. In total, 4 studies were level III, and 8 studies were level IV.
- A total of 1344 hips were included, and follow-up ranged from 10 to 20 years.
- FAIS was the most common indication for hip arthroscopy.
- Ten out of the 12 studies reported on PROs and 8 studies reported significant improvement after hip arthroscopy at long-term follow-up. The remaining two studies reported favorable outcomes that satisfied clinical benefit thresholds at minimum 10-year follow-up. Five studies reported clinical benefit where each patient cohort achieved 80% minimal clinically important difference (MCID) and 75% patient acceptable symptomatic state (PASS) for at least one PRO.
- Rates of secondary arthroscopy ranged from 4.5% to 24%, and rates of conversion to THA varied from 0%-44.1%. Older age and chondral damage were the most commonly cited predictors for conversion to THA.

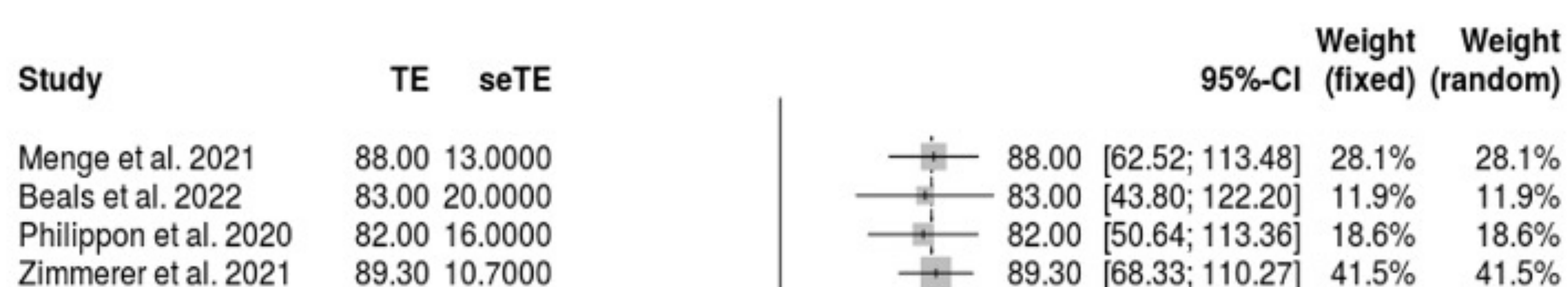


Figure 2A. Forest Plot for mHHS (modified Harris Hip Score)



Figure 2B. Forest Plot for HOS-ADL (Hip Outcome Score – Activities of Daily Living)



Figure 2C. Forest Plot for HOS-SSS (Hip Outcome Score – Sports Specific Subscale)

CONCLUSIONS

- At long-term follow-up, patients who underwent primary hip arthroscopy demonstrated favorable outcomes and variable rates of secondary surgeries.
- Patients undergoing hip arthroscopy within the last 20 years with Tonnis Grade < 1 and labral repair experienced over 90% survivorship.
- Chondral damage and older age were the most cited predictors for conversion to THA