

ARE THERE ONGOING DIFFERENCES BETWEEN MĀORI AND NON-MĀORI PATIENTS UNDERGOING PRIMARY TOTAL HIP AND KNEE ARTHROPLASTY SURGERY? A REGISTRY COHORT STUDY



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INTRODUCTION

Māori have worse general health compared to other ethnic groups in NZ(1). The aim of this study is to review current data and compare study data collected 15 years prior to determine whether there is ongoing disparity between Māori and non-Māori patients undergoing arthroplasty surgery.

METHODS

Using a regional based joint registry, we reviewed prospectively collected data for patients who underwent primary total hip and knee arthroplasty surgery between 2005-2020 in the Bay of Plenty. Patient demographics and patient scores were collected pre and post-surgery using WOMAC, Oxford, physical health (SF-12PH) and mental health (SF-12MH) questionnaires. Data was compared to previous study data collected between 2005-2009.

RESULTS

Māori patients still remain significantly younger (7.5 years, $p < 0.001$) when presenting for surgery, and with higher ASA scores compared to non-Māori. The difference in age between Maori and non-Maori has increased since the last study (6.65 to 7.5 years). On average, Māori patients still have worse scores pre-operatively and post-operatively at 1, 5 and 10-years (WOMAC 68.72 vs 65.12, 20.79 vs 16.24, 18.93 vs 15.80, 18.80 vs 16.79, Oxford 11.74 vs 13.13, 36.44 vs 39.11, 38.13 vs 40.11, 38.66 vs 39.89, all $p < 0.001$, other than at 10-years).

Although Māori have significantly smaller improvements in scores preoperatively to 1 and 5-years (Oxford 24.32 vs 25.48, 25.72 vs 26.51, physical 16.21 vs 17.43, 16.28 vs 17.32, WOMAC 46.43 vs 48.06, 48.03 vs 48.76), by 10-years, their overall improvement in scores overtakes non-Māori patient scores (Oxford 28.23 vs 27.85, physical 17.16 vs 16.80, WOMAC 55.14 vs 51.63).

With regards to mental health scores, although Māori start worse than non-Māori patients (35.4 vs 39.76), and have worse scores at 1, 5 and 10-years postoperatively (48.66 vs 51.55, 48.39 vs 51.77, 51.74 vs 52.33), their actual improvement in scores is significantly better preoperatively to 1, 5 and 10-years (12.26 vs 11.01, 13.48 vs 11.64, 17.92 vs 14.44).

CONCLUSIONS

From the research we conducted, evidence shows over the last 15 years there is ongoing disparity between Māori and non-Māori patients undergoing arthroplasty surgery despite acknowledging this in our first study. Māori patients are far younger than non-Māori at time of surgery, with an increase in age difference. Māori have lower life expectancy(1) than non-Māori in New Zealand, with worse general health and function before and after surgery, suggesting the need for early intervention, with a tailored ethnicity-specific referral and scoring pathway to access early arthroplasty services. The major determinant of post-operative function is pre-operative function(2), and therefore Māori patients have worse post-operative outcomes than non-Māori patients due to poorer pre-operative function. However, by 10-years, these differences are no longer evident. A major finding in this study is that although Māori patients have significantly worse pre and post-operative mental health status, their actual improvement in scores is significantly better than non-Māori patients at all time points.

REFERENCES

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