PENATALAKSANAAN FISIOTERAPI PADA KONDISI *POST OP TOTAL KNEE REPLACEMENT*

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Abstrak

Latar Belakang: *Total Knee Replacement* merupakan prosedur penggantian sendi melalui pembedahan dengan komponen prostetik (implan) yang umumnya diindikasikan bagi pasien *osteoarthritis grade* 4 yang sudah tidak optimal dengan terapi konservatif. Pascaoperasi, pasien umumnya mengalami nyeri, oedema, keterbatasan lingkup gerak sendi (LGS), penurunan kekuatan otot, gangguan keseimbangan, serta hambatan aktivitas fungsional. Sebanyak 20% pasien melaporkan adanya gangguan fungsional yang persisten oleh karena itu fisioterapi memiliki peran yang sangat krusial dalam mengoptimalkan pemulihan pasien pascaoperasi *Total Knee Replacement*. **Tujuan**: Karya tulis ilmiah ini bertujuan untuk mengkaji penatalaksanaan fisioterapi secara komprehensif pada kondisi *Post Op Total Knee Replacement* (TKR), meliputi pemeriksaan, identifikasi problem, intervensi, dan evaluasi fisioterapi. **Metode**: Penelitian ini menggunakan metode studi kasus pada satu pasien berusia 57 tahun dengan diagnosa *Post Op Total Knee Replacement* genu dextra yang dilaksanakan di Welspro *Sport Clinics & Performance* sebanyak 4 kali pertemuan pada tanggal 26 Februari, 28 Februari, 4 Maret dan 6 Maret 2026. Instrumen yang digunakan meliputi *Numeric Rating Scale* (NRS) untuk nyeri, Goniometer untuk Lingkup Gerak Sendi (LGS), pengukuran antropometri lingkar ekstremitas, 1 *Repetition Maximum* (1 RM) untuk kekuatan otot, *one leg stand* untuk keseimbangan, serta KOS-ADL untuk penilaian fungsional. Intervensi yang diberikan meliputi *ultrasound*, *Strengthening Exercise, & Balance Exercise*. **Hasil**: setelah dilakukan empat sesi intervensi, terdapat peningkatan LGS fleksi aktif sebesar 5º dan pasif sebesar 10º, penurunan skala nyeri dari 6/10 menjadi 4/10, penurunan oedema pada area *middle patella* sebesar 1,5 cm, serta peningkatan skor fungsional KOS-ADL dari 81% menjadi 84% namun kekuatan otot fleksor dan ekstensor relatif stabil selama periode intervensi. **Kesimpulan**: Pada pasien *post op Total Knee Replacement* (TKR) pemeriksaan dan problematik fisioterapi yang didapatkan yaitu adanya nyeri, keterbatasan LGS, oedema, penurunan kekuatan otot dan penurunan fungsional. Setelah diberikan intervensi berupa *Ultrasound* dan *Strengthening Exercise* dan *Balance Exercise* selama 4 kali didapatkan hasil berupa peningkatan lingkup gerak sendi, penurunan oedema dan penurunan skala nyeri.

Kata Kunci : Fisioterapi, *Post Op Total Knee Replacement*, *Osteoarthritis*, *Strengthening exercise*

PHYSIOTHERAPY IN CONDITION OF POST-OP TOTAL KNEE REPLACEMENT

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Abstract

***Background**: Total Knee Replacementis a surgical joint replacement procedure using prosthetic components (implants) indicated for patients with grade 4 osteoarthritis who no longer respond optimally to conservative therapy. Postoperatively, patients commonly experience pain, oedema, limited range of motion (ROM), decreased muscle strength, balance impairment, and restrictions in functional activities. Approximately 20% of patients report persistent functional disorders; therefore, physiotherapy plays a crucial role in optimising the recovery of post-operative Total Knee Replacementpatients. **Objective**: This scientific paper aims to comprehensively examine physiotherapy management in the condition of Post-Operative Total Knee Replacement(TKR), encompassing assessment, problem identification, intervention, and physiotherapy evaluation. **Method**: This study employed a case study method involving one patient aged 57 years diagnosed with Post-Operative Total Knee Replacementof the right Knee, conducted at Welspro Sport Clinics & Performance over four sessions on February 26, February 28, March 4, and March 6, 2026. Assessment instruments included the Numeric Rating Scale (NRS) for pain, Goniometer for Range of Motion (ROM), anthropometric limb circumference measurement, 1 Repetition Maximum (1RM) for muscle strength, One Leg Stand for balance, and KOS-ADL for functional assessment. Interventions administered included ultrasound and Strengthening Exercise. **Results**: Following four intervention sessions, improvements were observed including a 5° increase in active Knee flexion ROM and 10° in passive ROM, a reduction in pain scale from 6/10 to 4/10, a decrease in oedema at the middle patella area of 1.5 cm, and an improvement in KOS-ADL functional score; however, flexor and extensor muscle strength remained relatively stable throughout the intervention period. **Conclusion**: In post-op Total Knee Replacement(TKR) patients, problematic examinations and physiotherapy findings included pain, limited joint ROM, edema, decreased muscle strength, and functional decline. After four sessions of ultrasound, strengthening exercises, and balance exercise interventions resulted in increased joint range of motion, decreased edema, and decreased pain levels.*

***Keywords** : Physiotherapy, Total Knee Replacement, Osteoarthritis, Strengthening exercise*