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**A study to assess the functional outcome and the perceived
benefit among the patients undergone total knee arthroplasty**

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"ABSTRACT

“A study to assess the functional outcomes and the perceived benefits among total knee arthroplasty patients visiting the orthopaedic OPD of selected hospital of Karnataka” was carried out by Ms Sabina Sharma in partial fulfilment of the requirement for the degree of Master of Science in Nursing at Manipal College of Nursing, Manipal Academy of Higher Education, Manipal, Karnataka.

The objectives of the study were to assess the functional outcomes in total knee arthroplasty (TKA) patients as measured by Knee Injury and Osteoarthritis Outcome Scale, to assess the perceived benefits in knee arthroplasty patients as measured by perceived benefit scale, to find the relation between the functional outcomes and perceived benefits and to find the relation between the functional outcomes and duration after the surgery in knee arthroplasty patients.

The conceptual framework for the study was based on the International Classification of Functioning, Disability, and Health (ICF) (WHO 2001). This study adopted a quantitative approach using a cross-sectional survey design.

Purposive sampling technique was used to recruit the participants for the study. The tools used for data collection were socio demographic and clinical proforma, functional outcome scale and perceived benefit scale.

The content validity of the tool was established by submitting it to seven experts and modifications were made as per the suggestions given by the experts. All the tools were pre-tested and reliability was established. The pilot study was conducted among seven patients and the study was found to be feasible. The

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reliability of the tool on perceived benefit scale was established by using Cronbach's alpha and found to be reliable with the score of $\alpha = 0.91$ and the reliability of clinical variable was established by using Cohen's Kappa $r = 0.97$.

Administrative permission was obtained from the Dean, MCON, Manipal, Institutional Research Committee, MCON, Manipal, Institutional Ethics Committee, KH Manipal (IEC 810/2018, CTRI registration was done (CTRI/2018/12/016637).

The data was collected from 59 participants. Purpose of the study was explained and Informed consent was taken and participant information sheet was given who agreed

to participate in the study.

The data was analyzed using SPSS version 16, and it was statistically analysed by descriptive and inferential statistical methods. The study results revealed that majority (48%) of the participants were in the age group of 61 – 80, while 73.3% were female and 25% were male, and 61.0% of the patient family income was <2.5 lakhs, majority (50.8%) of the patients BMI was between 18.5 -24.9 and majority of the patients (61.0%) were reported as hypertensive.

The study revealed that 15% had limping gait and 10.2% of the participants had edema around the knee, 35.6% of the participants had muscle strength of grade 3 and 84.7% of the participants were walking without support.

The study infers that patients undergone TKA have a lower quality of life as compared to other functional outcomes. The median score of the pain is 58, symptoms 61, ADL is 53, and the QOL is 38 which shows that higher the median scores better is the functional outcomes.

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The majority (63.3%) of the participant's ability to participate in community activities was not fulfilled, 55.9% of the participant's ability to go down stairs was partially fulfilled. The majority (71.7%) of the participant's psychological well-being was fulfilled and 57.6% of the participant's ability to do the household activities was not fulfilled. The majority (67.8%) of the patients had moderate perceived benefit. Thus, the findings infer that the perceived benefit is moderately fulfilled by 6 months of the TKA surgery.

The study concluded that the functional outcomes improve after 3months of TKA surgery. At 4-6 months, the median scores of pain, symptoms, ADL and QOL (pain 75, symptom 68, ADL 66 and QOL 38) was increased when compared to 1-3 months (pain 47, symptoms 52, ADL 46, QOL 31) and there is a significant relation between the functional outcome scores and the duration after surgery among the patient undergone total knee arthroplasty. There was a positive relationship between the domains of functional outcomes and perceived benefit such as pain and perceived benefits score (ρ 0.570), symptom and perceived benefits score (ρ 0.478), ADL and perceived benefits score (ρ 0.588), QOL and perceived benefits score (ρ 0.501).

Thus, the study concluded that TKA is more common in female as compared to male and hypertension is one of the most common comorbidities. The functional outcomes gradually improve more after the 3 months of surgery, perceived benefits were partially fulfilled after the TKA. The activities like climbing upstairs, going downstairs, participating in household activities are partially fulfilled only after the 6 months of surgery."