

# A Quasi Experimental Study to Assess the Effectiveness of Back Massage in Reducing Post-Operative Pain among Patients Undergone Orthopedic Surgery at Apollo Loga Hospital Karur

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**Abstract:** A Quasi experimental study was conducted to assess the effectiveness of back massage in reducing post-operative pain among patients undergone orthopedic surgery in Apollo Loga Hospital, Karur. . **METHODOLOGY:** In this study a quasi-experimental, non-randomized control group pretest – posttest design was adopted. Convenience sampling technique was used to select each 30 samples in experimental and control group. Structured interview schedule was used to collect the demographic variables. Visual analog scale was used to assess the level of postoperative pain. Experimental group received intervention of Back massage with routine care for 15-20 minutes twice a day for 1-3 post-operative days. The result shows that, with regard to age, 11 (36.6%) in experimental group and 12(40%) in control group belonged to the age group of 41 to 60 years and 2 (6.6%) in experimental group and 3(10%) in control group belonged to the age group of above 80 years. Considering the sex, 17 (56.6%) subjects in the experimental group and 14 (46.6%) in the control group were females and the remaining were males. In relation to education, 9(30%) of them had high school education and 5(16.6%) of them had primary education in experimental group and 9(30%) of them had high school education and 11(36.6%) of them had primary education in control group. With regard to the occupation, 10(33.3%) were agriculture workers and 2(6.6%) were private employees in experimental group and 8(26.6%) were agriculture workers and 4(13.3%) were private employees in the control group. Regarding the history of previous orthopedic surgery, 17(56.6%) in experimental group and 18(60%) in control group had no history of previous orthopedic surgery. Considering the types of analgesics used, 17(56.6%) subjects in experimental group and 19(63.3%) in control group had parenteral type of analgesics used. In relation to frequency of analgesics administration, 24(80%) of them in the experimental group and 21(70%) of them in the control group got analgesics twice a day. With respect to types of orthopedic surgery, 20(66.6%) subjects in experimental group and 17(56.6%) in the control group had lower extremity orthopedic surgery. With regard to the types of anesthesia, 23(76.6%) subjects in the experimental group and 25(83.3%) subjects in the control group undergone spinal anesthesia and 3(10%) subjects in the experimental group and 2(6.6%) subjects in the control group undergone regional anesthesia **FINDINGS:** Findings of pre test level of pain in control group on day I and Day-II shows that 27 subjects (90%) had severe level of pain and 3 subjects (10%) had moderate level of pain. And the post test level of pain in control group on day I and day II, 26 subjects (86.6%) had severe level of pain and 4 subjects (13.3%) had moderate level of pain. The pre test level of pain on day III, 1 subject (3.3%) had mild level of pain, and 2 subjects (6.6%) had moderate level of pain and 27 subjects (90%) had severe level of pain. The post test level of pain on day III, 5 subjects (16.6%) had moderate level of pain, 25 subjects (83.3%) had severe level of pain. Whereas in experimental group, the pre test level of pain on Day I post operative day 22 subjects (73.3%) had severe



level of pain and on Day III post operative day, 23 subjects (76.6%) had moderate level of pain and the post test level of pain on I post operative day 17 subjects (56.6%) had moderate level of pain, on III post operative day 19(63.3%) had mild level of pain. Findings revealed that in control group, the pre test mean score was 84.7 with SD 8.4 and the post test mean score 83.7 with SD 9.5 on the day-I and day -II the pre test mean score was 84.7 with SD 8.4 and in the post test mean score 83.7 with SD 9.5 On day-III, the pre test mean score was 83.5 with SD 12.9 and in the post test mean score 82.8 with SD 10.4. The calculated 't' values on day-I, II, III in the control group were 0.98, 0.98, 1.82 which are not significant. It is concluded that there was no significant differences between the pre and post test level of pain among patients undergone Orthopaedic surgery. Findings of experimental group shown that the pre test mean score was 80 with SD 12.3 and the post test mean score 71.6 with SD 13.8 on the day-I. On Day -II the pre test mean score was 62.3 with SD 8.3 and in the post test mean score 42 with SD 17.4. On Day-III the pre test mean score was 51.3 with SD 14.8 and the post test mean score 37.3 with SD 14. The calculated 't' value on day-I, II, III in the experimental group were 3.5, 4.4, 4.5 was statistically highly significant at  $p < 0.001$  level which clearly shows that there was a significant reduction in the level of pain among patients undergone Orthopaedic surgery after giving back massage. The obtained 't' values on day-I, day-II, day-III for level of pain between the control and experimental group is 4.1, 6.6, 13.4 which were highly significant at  $p < 0.001$  level. These findings revealed that the subjects in experimental group had decreased level of pain after giving back massage compared to control group. Findings revealed that in control group, the pre test mean score was 34.8 with SD 2.4 and the post test mean score was 31.5 with SD 6.6.

There was no association between pretest level of pain and their demographic variable of occupation, history of previous orthopedic surgery, types of analgesics and frequency of analgesic administration. There was a significant association between the level of pain and the other demographic variables among patients undergone Orthopedics surgery in the control group. There was a significant association between the demographic variables such as age, gender, history of previous surgery, their level of pain. No other demographic variables were shown any association with their level of pain among patients undergone orthopedics surgery in the experimental group.

**Keywords:** Quasi

