***TABLES, FLOW CHARTS AND GRAPHS USED IN THE REPORTING OF THE RESULTS.***

***Flow chart 4.1: Flow chart representing the participant recruitment process and number of participants included.***

***Table 4.1: The KOOS-12 Summary knee impact score for each investigated variable.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable investigated**  | **Category (n)** | **Mean Pain** | **Mean ADL** | **Mean QOL** | **KOOS-12 Summary**  |
| Gender  | Male (58) | 54.41  | 56.88  | 34.76  | 48.68 |
| Female (28) | 65.29  | 63.07  | 50.46  | 59.61 |
| Age | 20-39 years (55) | 61.60  | 65.33  | 42.90  | 56.61 |
| 40-60 years (31) | 51.48  | 47.44  | 34.48 | 44.47 |
| Occupation | Unemployed (31) | 57.00  | 58.77  | 40.74  | 52.17 |
| Employed (55) | 58.49  | 58.96  | 39.38  | 52.64 |
| Social support | No (7) | 46.57  | 51.86  | 32.29  | 43.69 |
| Yes (79) | 58.96  | 59.52 | 40.54  | 53.00 |
| Pre-injury activity level | Low (12) | 57.33  | 53.75  | 36.58  | 49.22 |
| Moderate (30) | 63.13  | 65.27  | 47.07  | 58.49 |
| High (44) | 54.59  | 55.96  | 35.86  | 48.80 |
| Fracture type | Low energy injury (49) | 60.71  | 61.31  | 41.90 | 54.64 |
| High energy injury (37) | 54.30  | 55.70  | 37.19  | 49.03 |
| Surgical intervention | No (19) | 65.85  | 69.80  | 50.05 | 61.90 |
| Yes (67) | 55.56  | 55.59  | 36.78  | 49.31 |
| Conservative intervention | No (67) | 55.76  | 55.97  | 37.08  | 49.60 |
| Yes (19) | 65.68  | 69.21  | 49.74  | 61.54 |
| Physiotherapy | No (26) | 62.81  | 63.35  | 39.46  | 54.01 |
| Yes (60) | 55.85  | 56.97  | 40.05 | 50.96 |
| \*HEP/advice | No (35) | 62.06  | 61.89  | 38.09  | 54.01 |
| Yes (51) | 56.84  | 56.84  | 41.10  | 51.59 |

\*HEP = Home exercise program. All measures scored indicated 0 = worst possible and 100 = best possible score.

***Table 4.2: Linear relationships between the aspect of pain described in the KOOS-12 pain sub-scale of the KOOS-12*** ***questionnaire and variables under investigation in this study***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables investigated**  | **Category (n)** | **Mean (SD)** | **95% CI** | **Mean difference** | **p-value** |
| Gender  | Male (58) | 54.41 (25.87) | (47.61 ; 61.21) | 10.87 | 0.0611 |
| Female (28) | 65.29 (22.70) | (56.49 ; 74.09) |
| Age | 20-39 years (55) | 61.60 (23.98) | (55.11 ; 68.08) | 10.11 | **0.0439** |
| 40-60 years (31) | 51.48 (26.58) | (41.73 ; 61.23) |
| Occupation | Unemployed (31) | 57.00 (24.92) | (47.86 ; 66.14) | 1.49 | 0.7945 |
| Employed (55) | 58.49 (25.67) | (51.55 ; 65.43) |
| Social support | No (7) | 46.57 (36.92) | (12.43 ; 80.72) | 12.39 | 0.2157 |
| Yes (79) | 58.96 (24.05) | (53.58 ; 64.35) |
| Pre-injury activity level | Low (12) | 57.33 (18.94) |  (48.96 ; 67.13) |  7.48 | 0.3636 |
| Moderate (30) | 63.13 (27.90) | (54.35 ; 75.48) |
| High (44) | 54.59 (24.80) |  (46.58 ; 62.58) |
| Fracture type | Low energy injury (49) | 60.71 (24.49) | (53.68 ; 67.75) | 6.41 | 0.2459 |
| High energy injury (37) | 54.30 (26.14) | (45.58 ; 63.01) |
| Surgical intervention | No (19) | 65.85 (24.85) | (54.23 ; 77.48) | 10.29 | 0.1111 |
| Yes (67) | 55.56 (25.09) | (49.39 ; 61.73) |
| Conservative intervention | No (67) | 55.76 (24.95) | (49.68 ; 61.85) | 10.00 | 0.1316 |
| Yes (19) | 65.68 (25.53) | (53.38 ; 77.99) |
| Physiotherapy | No (26) | 62.81 (27.70) | (51.62 ; 73.99) |  6.96 | 0.2432 |
| Yes (60) | 55.85 (24.08) | (49.63 ; 62.07) |
| \*HEP/advice | No (35) | 62.06 (25.74) | (53.21 ; 70.90) |  6.92 | 0.2141 |
| Yes (51) | 56.84 (30.36) | (48.16 ; 62.11) |

\*: Statistically significant (p<0.05). HEP = home exercise programme. Mean (SD) scores in the KOOS-12 Pain sub-scale and 95% CI by various factors.

***Table 4.3: Linear relationships between the functional outcomes described in the KOOS-12 Function sub-scale of the KOOS-12*** ***questionnaire and variables under investigation in this study.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables investigated** | **Category (n)** | **Mean (SD)** | **95% CI** | **Mean difference** | **P-value** |
| Sex | Male (58) | 56.88 (27.79) | (49.57 ; 64.19) | 6.19 | 0.3530 |
| Female (28) | 63.07 (30.84) | (51.11 ; 75.03) |
| Age | 20-39 years (55) | 65.33 (25.51) | (58.43 ; 72.22) | 17.89 | **0.0076** |
| 40-60 years (31) | 47.44 (31.08) | (36.08 ; 58.88) |
| Occupation | Unemployed (31) | 58.77 (31.40) | (49.57 ; 64.18) | 0.19 | 0.7945 |
| Employed (55) | 58.96 (27.51) | (51.11 ; 75.03) |
| Social support | No (7) | 51.86 (30.23) | (23.90 ; 79.81) | 7.66 | 0.5030 |
| Yes (79) | 59.52 (28.77) | (53.07 ; 65.96) |
| Pre-injury activity level | Low (12) | 53.75 (33.09) | (50.50 ; 68.01) | 6.70 | 0.3184 |
| Moderate (30) | 65.27 (30.11) | (53.87 ; 72.68) |
| High (44) | 55.96 (26.50) | (48.84 ; 65.82) |
| Fracture type | Low impact injury (49) | 61.31 (29.29) | (52.90 ; 69.71) | 5.61 | 0.3746 |
| High impact injury (37) | 55.70 (28.23) | (46.30 ; 65.11) |
| Surgical intervention | No (19) | 69.80 (26.07) | (57.60 ; 82.00) | 14.21 | 0.0526 |
| Yes (67) | 55.59 (28.94) | (48.48 ; 62.70) |
| Conservative intervention | No (67) | 55.97 (28.89) | (48.92 ; 63.02) | 13.24 | 0.0767 |
| Yes (19) | 69.21 (26.64) | (56.37 ; 82.05) |
| Physiotherapy | No (26) | 63.35 (26.02) | (52.83 ; 73.86) | 6.38 | 0.35483 |
| Yes (60) | 56.97 (29.91) | (49.24 ; 64.69) |
| HEP/advice  | No (35) | 61.89 (26.46) | (52.80 ; 70.98) | 5.05  | 0.4281 |
| Yes (51) | 56.84 (30.36) | (48.30 ; 65.39) |

\*: Statistically significant (p<0.05). HEP: home exercise programme. Mean (SD) scores in the KOOS-12 Function subs-scale and 95% CI by various factors.

***Table 4.4: Linear relationships between the knee-related QOL described in the KOOS-12 Quality of life sub-scale of the KOOS-12 questionnaire and variables under investigation in this study.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables investigated** | **Category (n)** | **Mean (SD)** | **95% CI** | **Mean difference** | **p-value** |
| Sex | Male (58) | 34.76 (26.16) | (27.88 ; 41.64) | 15.71 | 0.0102 |
| Female (28) | 50.46 (25.61) | (40.53 ; 60.40) |
| Age | 20-39 years (55) | 42.90 (26.96) | (35.62 ; 50.20) | 8.42 | 0.0800 |
| 40-60 years (31) | 34.48 (26.28) | (24.84 ; 44.12) |
| Occupation | Unemployed (31) | 40.74 (27.79) | (27.88 ; 41.64) | 1.36 | 0.8232 |
| Employed (55) | 39.38 (26.58) | (40.53 ; 60.40) |
| Social support | No (7) | 32.29 (33.02) | (1.75 ; 62.82) | 8.26 | 0.4390 |
| Yes (79) | 40.54 (26. 41) | (34.62 ; 46.46) |
| Pre-injury activity level | Low (12) | 36.58 (17.87) | (49.01 ; 69.58) | 5.81 | 0.1924 |
| Moderate (30) | 47.07 (32.45) | (55.78 ; 70.62) |
| High (44) | 35.86 (24.08) | (46.82 ; 67.03) |
| Fracture type | Low impact injury (49) | 41.90 (25.29) | (25.27 ; 34.63) | 4.71 | 0.4243 |
| High impact injury (37) | 37.19 (28.97) | (27.53 ; 46.85) |
| Surgical intervention | No (19) | 50.05 (28.14) | (36.88 ; 63.22) | 13.26 | 0.0526 |
| Yes (67) | 36.78 (25.91) | (30.42 ; 43.16) |
| Conservative intervention | No (67) | 37.08 (25.82) | (30.78 ; 43.37) | 12.38 | 0.0696 |
| Yes (19) | 49.74 (28.88) | (35.81 ; 63.65) |
| Physiotherapy | No (26) | 39.46 (27.89) | (28.19 ; 50.73) | 0.59 | 0.9263 |
| Yes (60) | 40.05 (26.65) | (33.16 ; 46.93) |
| HEP/advice  | No (35) | 38.09 (25.55) | (29.30 ; 46.87) | 3.01 | 0.6124 |
| Yes (51) | 41.10 (27.92) | (33.25 ; 48.95) |

\*: Statistically significant (p<0.05). HEP: home exercise programme. Mean (SD) scores in the KOOS-12 QOL sub-scale and 95% CI by various factors.

***Table 4.5 Predicted mean pain score in relation to sex and surgical intervention (adjusted for age)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Factor (outcome)**  | **Category (n)** | **Mean**  | **95% CI** | **Mean difference** | **p-value** |
| Gender  | Male (58) | 54.41  | (47.86 ; 60.69) | 10.99 | 0.0550 |
| Female (28) | 65.28 | (56.04 ; 74.51) |
| Surgical intervention | No (20) | 65.81  | (54.87 ; 76.75) | 13.26 | 0.0526 |
| Yes (66) | 55.44 | (49.43 ; 61.46) |



***Figure 4.1: Adjusted prediction of sex and surgical intervention***

***Table 4.6: Predicted mean KOOS-12 Function score in relation to sex and surgical intervention (adjusted for age)***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Factor (outcome)**  | **Category (n)** | **Mean**  | **95% CI** | **Mean difference** | **P-value** |
| Sex  | Male (58) | 56.71 | ( 49.30 ; 64.12) | 6.44 | 0.3530 |
| Female (28) | 63.15 | ( 52.49 ; 73.82) |
| Surgical intervention | No (20) | 69.70 | ( 57.06 ; 82.32) | 14.18 | 0.0526 |
| Yes (66) | 55.52 | ( 48.57 ; 62.46) |



***Figure 4.2: Linear predicted mean KOOS-12 Function score in relation to sex (gender) and surgical intervention.***

***Table 4.7: Predicted mean KOOS-12 QOL score in relation to sex and surgical intervention***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Factor (outcome)**  | **Category (n=total)** | **Mean** | **95% CI** | **Mean difference** | **p-value** |
| Sex  | Male (58) | 34.76 | ( 27.88 ; 41.64) | 15.93 | **0.0102** |
| Female (28) | 50.46 | ( 40,53 ; 60.11) |
| Surgical intervention | No (20) | 50.18 | ( 38.83 ; 61.52) | 13.54 | 0.0526 |
| Yes (66) | 36.64 | ( 30.40 ; 42.87) |

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***Figure 4.3: Display of linear predicted mean KOOS-12 QOL score in relation to sex (gender) and surgical intervention.***