Distribution of the studied sample regarding Knee injury and Osteoarthritis Outcome Score (KOOS) pre/post application of the study (n = 30)

	Pre		Post		p. value
	N.	**%**	**N.**	**%**	
Pain					
P1 How often is your knee painful?					
Monthly	0	0.0	11	36.6	
Weekly	1	3.3	14	46.7	< .001**
Daily	13	43.4	5	16.7	
Always	16	53.3	0	0.0	
P2 Degree of pain experienced the last week? Twisting/pivoting on the knee?					
None	0	0.0	2	6.7	
Mild	1	3.3	22	73.3	
Moderate	7	23.3	3	10.0	< .001**
Sever	17	56.7	3	10.0	
Extreme	5	16.7	0	0.0	
P3 Straightening knee fully?					
None	7	23.3	13	43.3	
Mild	6	20.0	12	40.0	
Moderate	8	26.7	2	6.7	.018**
Sever	5	16.7	3	10.0	
Extreme	4	13.3	0	0.0	
P4 Bending knee fully?					
Mild	0	0.0	19	63.3	
Moderate	2	6.7	7	23.4	< .001**
Sever	19	63.3	3	10.0	
Extreme	9	30.0	1	3.3	
P5 Walking on flat surface?					
None	3	10.0	9	30.0	
Mild	2	6.7	17	56.7	
Moderate	18	60.0	1	3.3	< .001**
Sever	4	13.3	2	6.7	
Extreme	3	10.0	1	3.3	
P6 Going up or down stairs?					
Mild	0	0.0	16	53.4	
Moderate	6	20.0	9	30.0	< .001**
Sever	8	26.7	1	3.3	
Extreme	16	53.3	4	13.3	
P7 At night while in bed?					
None	1	3.3	9	30.0	
Mild	3	10.0	14	46.7	
Moderate	10	33.3	3	10.0	< .001**
Sever	11	36.7	1	3.3	
Extreme	5	16.7	3	10.0	

	Pre		Post		*p*. value
	N.	**%**	**N.**	**%**	
P8 Sitting or lying?					
None	0	0.0	7	23.3	
Mild	3	10.0	19	63.4	
Moderate	15	50.0	1	3.3	< .001**
Sever	9	30.0	0	0.0	
Extreme	3	10.0	3	10.0	
P9 Standing upright?					
None	1	3.3	7	23.3	
Mild	1	3.3	18	60.0	
Moderate	14	46.7	2	6.7	< .001**
Sever	11	36.7	1	3.3	
Extreme	3	10.0	2	6.7	

Symptoms					
Sy1 How severe is your knee stiffness after first wakening in the morning?					
None	1	3.3	7	23.4	
Mild	0	0.0	18	60.0	
Moderate	16	53.4	1	3.3	< .001**
Sever	9	30.0	3	10.0	
Extreme	4	13.3	1	3.3	
Sy2 How severe is your knee stiffness after sitting, lying, or resting later in the day?					
None	1	3.3	8	26.7	
Mild	1	3.3	18	60.0	
Moderate	17	56.7	1	3.3	< .001**
Sever	8	26.7	2	6.7	
Extreme	3	10.0	1	3.3	
Sy3 Do you have swelling in your knee?					
Never	4	13.3	6	20.0	
Rarely	2	6.7	19	63.3	
Sometimes	10	33.3	1	3.3	< .001**
Often	8	26.7	2	6.7	
Always	6	20.0	2	6.7	
Sy4 Do you feel grinding, hear clicking or any other type of noise when your knee moves?					
Never	1	3.3	3	10.0	
Rarely	1	3.3	20	66.7	
Sometimes	9	30.0	3	10.0	< .001**
Often	14	46.7	1	3.3	
Always	5	16.7	3	10.0	
Sy5 Does your knee catch or hang up when moving?					
Never	0	0.0	4	13.3	< .001**

Rarely	0	0.0	20	66.7	
Sometimes	16	53.3	3	10.0	
Often	11	36.7	1	3.3	
Always	3	10.0	2	6.7	
Sy6 Can you straighten your knee fully?					
Never	4	13.3	0	0.0	
Rarely	16	53.3	0	0.0	
Sometimes	5	16.7	4	13.3	$< .001$**
Often	2	6.7	19	63.4	
Always	3	10.0	7	23.3	
Sy7 Can you bend your knee fully?					
Never	14	46.7	2	6.7	
Rarely	13	43.3	1	3.3	
Sometimes	0	0.0	10	33.3	$< .001$**
Often	1	3.3	15	50.0	
Always	2	6.7	2	6.7	
Daily living activities					
Degree of difficulty experienced during the last week **A1 - Descending**					
None	0	0.0	2	6.6	
Mild	1	3.3	20	66.7	
Moderate	5	16.7	4	13.3	$< .001$**
Sever	20	66.7	2	6.7	
Extreme	4	13.3	2	6.7	
A2 Ascending stairs					
None	0	0.0	1	3.3	
Mild	1	3.3	17	56.7	
Moderate	2	6.7	8	26.8	$< .001$**
Sever	16	53.3	2	6.6	
Extreme	11	36.7	2	6.6	
A3 Rising from sitting:					
None	0	0.0	4	13.3	
Mild	2	6.6	21	70.0	
Moderate	11	36.7	2	6.7	$< .001$**
Sever	14	46.7	2	6.7	
Extreme	3	10.0	1	3.3	
A4 Standing:					
None	0	0.0	5	16.7	
Mild	1	3.3	20	66.7	
Moderate	15	50.0	2	6.7	$< .001$**
Sever	11	36.7	1	3.3	
Extreme	3	10.0	2	6.6	
A5 Bending to floor or picking up of an object:					
None	1	3.3	5	16.8	$< .001$**
Mild	1	3.3	18	60.0	

Moderate	10	33.4	3	10.0	
Sever	14	46.7	2	6.6	
Extreme	4	13.3	2	6.6	
A6 Walking on flat surface:					
None	1	3.3	10	33.3	
Mild	7	23.3	15	50.0	
Moderate	15	50.0	1	3.3	< .001**
Sever	5	16.7	2	6.7	
Extreme	2	6.7	2	6.7	
A7 Getting in/out of car:					
None	0	0.0	8	26.7	
Mild	3	10.0	17	56.7	
Moderate	15	50.0	2	6.7	< .001**
Sever	10	33.3	1	3.3	
Extreme	2	6.7	2	6.6	
A8 Going shopping:					
None	0	0.0	6	20.0	
Mild	1	3.3	15	50.0	
Moderate	11	36.7	6	20.0	< .001**
Sever	13	43.3	1	3.3	
Extreme	5	16.7	2	6.7	
A9 Putting on socks/stockings:					
None	2	6.7	7	23.3	
Mild	2	6.7	19	63.3	
Moderate	11	36.6	0	0.0	< .001**
Sever	13	43.3	2	6.7	
Extreme	2	6.7	2	6.7	
A10 Rising from bed:					
None	1	3.3	10	33.4	
Mild	0	0.0	16	53.3	
Moderate	20	66.7	1	3.3	< .001**
Sever	6	20.0	1	3.3	
Extreme	3	10.0	2	6.7	
A11 Taking off socks/stockings:					
None	1	3.3	8	26.6	
Mild	3	10.0	17	56.7	
Moderate	8	26.7	2	6.7	< .001**
Sever	15	50.0	1	3.3	
Extreme	3	10.0	2	6.7	
A12-lying in bed:					
None	0	0.0	8	26.7	
Mild	0	0.0	15	50.0	
Moderate	19	63.3	4	13.3	< .001**
Sever	6	20.0	1	3.3	
Extreme	5	16.7	2	6.7	

A13 Getting in/out of bath:					
None	0	0.0	5	16.7	
Mild	1	3.3	18	60.0	
Moderate	11	36.7	4	13.3	< .001**
Sever	13	43.3	1	3.3	
Extreme	5	16.7	2	6.7	
A14 Sitting:					
None	0	0.0	8	26.7	
Mild	1	3.3	15	50.0	
Moderate	17	56.7	4	13.3	< .001**
Sever	7	23.3	2	6.7	
Extreme	5	16.7	1	3.3	
A15 Getting on/ off toilet:					
None	0	0.0	1	3.3	
Mild	2	6.7	22	73.3	
Moderate	4	13.3	3	10.0	< .001**
Sever	19	63.3	2	6.7	
Extreme	5	16.7	2	6.7	
A16 Heavy domestic duties (shoveling, scrubbing floors, etc.):					
None	0	0.0	1	3.3	
Mild	0	0.0	20	66.6	
Moderate	3	10.0	5	16.7	< .001**
Sever	21	70.0	2	6.7	
Extreme	6	20.0	2	6.7	
A17 Light domestic duties:					
None	0	0.0	5	16.7	
Mild	2	6.7	20	66.6	
Moderate	14	46.6	2	6.7	< .001**
Sever	11	36.7	0	0.0	
Extreme	3	10.0	3	10.0	
Sport and recreation function					
What difficulty have you experienced the last week? **Sp1 Squatting:**					
None	0	0.0	1	3.3	
Mild	0	0.0	14	46.6	
Moderate	4	13.3	11	36.7	< .001**
Sever	11	36.7	2	6.7	
Extreme	15	50.0	2	6.7	
Sp2 Running:					
Mild	0	0.0	10	33.3	
Moderate	1	3.3	16	53.3	< .001**
Sever	8	26.7	2	6.7	
Extreme	21	70.0	2	6.7	
Sp3 Jumping:					
Mild	0	0.0	10	33.3	< .001**

Moderate	1	3.3	16	53.3	
Sever	8	26.7	2	6.7	
Extreme	21	70.0	2	6.7	
Sp4 Turning or twisting on the injured knee:					
None	0	0.0	2	6.7	
Mild	0	0.0	18	60.0	
Moderate	4	13.3	5	16.6	< .001**
Sever	16	53.3	2	6.7	
Extreme	10	33.4	3	10.0	
Sp5 Kneeling:					
None	0	0.0	3	10.0	
Mild	1	3.3	19	63.4	
Moderate	5	16.7	4	13.3	< .001**
Sever	15	50.0	1	3.3	
Extreme	9	30.0	3	10.0	
Knee related QOL					
Q1 - Patient awareness of knee problems					
Mild	0	0.0	21	70.0	
Moderate	1	3.3	4	13.3	< .001**
Sever	18	60.0	2	6.7	
Extreme	11	36.7	3	10.0	
Q2 - Modifying lifestyle to avoid potentially damaging activities to the knee					
Mild	2	6.7	25	83.3	
Moderate	1	3.3	0	0.0	< .001**
Sever	21	70.0	4	13.4	
Extreme	6	20.0	1	3.3	
Q3 - Trouble regarding lack of confidence in the knee					
None	0	0.0	1	3.3	
Mild	0	0.0	23	76.7	
Moderate	4	13.3	3	10.0	< .001**
Sever	24	80.0	3	10.0	
Extreme	2	6.7	0	0.0	
Q4 - Generally, difficulty with the knee					
None	0	0.0	2	6.6	
Mild	0	0.0	16	53.4	
Moderate	5	16.6	9	30.0	< .001**
Sever	17	56.7	3	10.0	
Extreme	8	26.7	0	0.0	

Note. Chi-square test * statistically significant difference ($p < .05$) ** highly statistically significant difference ($p<0.01$)