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Model Results

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1. Medication Satisfaction - Baseline

1.1. Logistic Regression Results

Coefficient	Estimate	Exp(estimate)	Standard Error	P-value
Intercept	-23.33	0.00	0.95	<.0001
BuTrans Group	1.17	3.22	0.33	0.0005
Co-codamol Group	-0.10	0.90	0.18	0.5843
Tramadol Group	0.00	1.00	0.00	.
Under 40	24.01	2.68E+10	0.97	<.0001
40-49 Years	22.94	9.17E+09	0.95	<.0001
50-59 Years	22.49	5.87E+09	0.95	<.0001
60-69 Years	22.50	5.87E+09	0.96	<.0001
70-79 Years	22.59	6.48E+09	1.01	<.0001
80-89 Years	21.93	3.35E+09	0.00	.
90 + Years	0.00	1.00	0.00	.
Male	0.83	2.29	0.21	<.0001
Female	0.00	1.00	0.00	.
Group Comparisons				
BuTrans vs Co-codamol	1.27	3.56	0.32	<.0001
BuTrans vs Tramadol	1.17	3.22	0.33	0.0005

Type 3 Analysis

Source	Df	Chi-Square	P-value
Treatment Group	2	17.30	0.0002
Age	6	37.05	<.0001
Gender	1	16.07	<.0001

1.2. Model Goodness of Fit Statistics

Criterion	Value
Pseudo R-squared	16.25%

2. SF36 Aggregate Physical Scores

2.1. Baseline Results

2.1.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	13.95	5.66	0.0139
BuTrans Group	4.29	1.11	0.0001
Co-codamol Group	2.54	0.68	0.0002
Tramadol Group	0.00	.	.
Under 40	22.87	5.65	<.0001
40-49 Years	15.37	5.66	0.0068
50-59 Years	10.75	5.64	0.0573
60-69 Years	11.29	5.66	0.0465
70-79 Years	9.54	5.80	0.1003
80-89 Years	10.10	6.47	0.1187
90 + Years	0.00	.	.
Male	5.73	0.76	<.0001
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	1.75	1.03	0.0910
BuTrans vs Tramadol	4.29	01.11	0.0001
Type 3 Analysis			
Source	Df	F-Value	P-value
Treatment Group	2	17.30	<.0001
Age	6	37.05	<.0001
Gender	1	16.07	<.0001

2.1.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	40.29%

2.2. Month 1 Results

2.2.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	15.57	8.14	0.0568
BuTrans Group (At Baseline)	3.03	1.72	0.0795
Co-codamol Group (At Baseline)	2.21	0.92	0.0170
Tramadol Group (At Baseline)	0.00	.	.
Under 40	19.26	8.17	0.0189
40-49 Years	11.82	8.14	0.1474
50-59 Years	9.77	8.11	0.2291
60-69 Years	11.12	8.12	0.1720
70-79 Years	11.88	8.34	0.1555
80-89 Years	-0.30	9.05	0.9734
90 + Years	0.00	.	.
Male	4.22	1.10	0.0001
Female	0.00	.	0.0568
Group Comparisons			
BuTrans vs Co-codamol	0.82	1.66	0.6201
BuTrans vs Tramadol	3.03	1.72	0.0795
Type 3 Analysis			
Source	Df	F-Value	P-value
Treatment Group at Baseline	2	3.39	0.0349
Age	6	8.04	<.0001
Gender	1	14.72	0.0001

2.2.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	21.34%

2.3. Month 2 Results

2.3.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	21.44	8.07	0.0084
BuTrans Group (At Baseline)	1.43	2.29	0.5337
Co-codamol Group (At Baseline)	2.07	1.06	0.0524
Tramadol Group (At Baseline)	0.00	.	.
Under 40	11.76	8.21	0.1530
40-49 Years	4.97	8.10	0.5402
50-59 Years	4.13	8.02	0.6074
60-69 Years	5.19	8.03	0.5193
70-79 Years	6.64	8.25	0.4214
80-89 Years	1.76	9.24	0.8489
90 + Years	0.00	.	.
Male	3.96	1.30	0.0025
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	-0.64	2.24	0.7746
BuTrans vs Tramadol	-1.43	2.29	0.5337
Type 3 Analysis			
Source	Df	F-Value	P-value
Treatment Group at Baseline	2	1.90	0.1512
Age	6	2.43	0.0265
Gender	1	9.32	0.0025

2.3.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	11.54%

2.4. Month 3 Results

2.4.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	32.81	8.08	<.0001
BuTrans Group (At Baseline)	1.64	2.79	0.5587
Co-codamol Group (At Baseline)	1.88	1.16	0.1070
Tramadol Group (At Baseline)	0.00	.	.
Under 40	3.02	8.19	0.7122
40-49 Years	-5.77	8.14	0.4790
50-59 Years	-7.00	8.03	0.3846
60-69 Years	-4.69	8.04	0.5607
70-79 Years	-6.24	8.31	0.4541
80-89 Years	-15.86	9.75	0.1057
90 + Years	0.00	.	.
Male	2.68	1.46	0.0679
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	-0.25	2.75	0.9276
BuTrans vs Tramadol	-1.64	2.79	0.5587
Type 3 Analysis			
Source	Df	F-Value	P-value
Treatment Group at Baseline	2	1.33	0.2670
Age	6	4.64	0.0002
Gender	1	3.37	0.0679

2.4.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	15.96%

3. SF36 Aggregate Mental Scores

3.1. Baseline Results

3.1.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	48.16	8.76	<.0001
BuTrans Group	0.62	1.71	0.7193
Co-codamol Group	-1.06	1.05	0.3140
Tramadol Group	0.00	.	.
Under 40	-14.35	8.76	0.1017
40-49 Years	-14.63	8.76	0.0954
50-59 Years	-13.47	8.74	0.1239
60-69 Years	-9.39	8.77	0.2846
70-79 Years	-5.57	8.98	0.5352
80-89 Years	-6.78	10.02	0.4988
90 + Years	0.00	.	.
Male	2.27	1.1803	0.0548
Female	0	.	.
Group Comparisons			
BuTrans vs Co-codamol	1.68	1.60	0.2945
BuTrans vs Tramadol	0.62	1.71	0.7193
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	0.87	0.4204
Age	6	4.77	<.0001
Gender	1	3.70	0.0548

3.1.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	47.36%

3.2. Month 1 Results

3.2.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	38.11	12.54	0.0026
BuTrans Group	-3.88	2.66	0.1452
Co-codamol Group	-0.49	1.42	0.7324
Tramadol Group	0.00	.	.
Under 40	-1.62	12.57	0.8975
40-49 Years	-5.16	12.53	0.6805
50-59 Years	-0.88	12.49	0.9440
60-69 Years	1.79	12.50	0.8862
70-79 Years	4.21	12.84	0.7436
80-89 Years	9.20	13.93	0.5093
90 + Years	0.00	.	.
Male	1.37	1.69	0.4185
Female	0	.	.
Group Comparisons			
BuTrans vs Co-codamol	-3.39	2.56	0.1853
BuTrans vs Tramadol	-3.88	2.66	0.1452
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	1.08	0.3414
Age	6	2.59	0.0180
Gender	1	0.66	0.4185

3.2.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	4.98%

3.3. Month 2 Results

3.3.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	39.37	13.28	0.0033
BuTrans Group	-6.49	3.78	0.0869
Co-codamol Group	-2.55	1.75	0.1459
Tramadol Group	0.00	.	.
Under 40	-0.50	13.51	0.9707
40-49 Years	-6.39	13.33	0.6321
50-59 Years	-0.63	13.20	0.9617
60-69 Years	1.83	13.22	0.8901
70-79 Years	8.56	13.57	0.5290
80-89 Years	6.56	15.20	0.6663
90 + Years	0.00	.	.
Male	-0.24	2.13	0.9099
Female	0	.	.
Group Comparisons			
BuTrans vs Co-codamol	-3.94	3.69	0.2863
BuTrans vs Tramadol	-6.49	3.78	0.0869
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	1.99	0.1386
Age	6	2.37	0.0304
Gender	1	0.01	0.9099

3.3.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	6.17%

3.4. Month 3 Results

3.4.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	44.44	12.94	0.0007
BuTrans Group	-5.42	4.47	0.2267
Co-codamol Group	-2.65	1.86	0.1569
Tramadol Group	0.00	.	.
Under 40	-7.98	13.10	0.5431
40-49 Years	-11.65	13.03	0.3722
50-59 Years	-8.15	12.86	0.5271
60-69 Years	-4.22	12.88	0.7436
70-79 Years	2.70	13.30	0.8396
80-89 Years	3.36	15.6135	0.8300
90 + Years	0.00	.	.
Male	2.07	2.34	0.3786
Female	0	.	.
Group Comparisons			
BuTrans vs Co-codamol	-2.77	4.40	0.5296
BuTrans vs Tramadol	-5.42	4.47	0.2267
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	1.41	0.2474
Age	6	2.24	0.0413
Gender	1	0.78	0.3786

3.4.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	7.24%

4. MMAQ Total Score

4.1. Baseline Results

4.1.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	6.87	1.37	<.0001
BuTrans Group	0.54	0.27	0.0435
Co-codamol Group	-0.52	0.16	0.0015
Tramadol Group	0.00	.	.
Under 40	-1.36	1.37	0.3199
40-49 Years	-1.45	1.37	0.2917
50-59 Years	-1.09	1.37	0.4252
60-69 Years	-0.65	1.37	0.6366
70-79 Years	-0.12	1.4037	0.9308
80-89 Years	0.59	1.57	0.7076
90 + Years	0.00	.	.
Male	-0.52	0.18	0.0052
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	1.07	0.25	<.0001
BuTrans vs Tramadol	0.54	0.27	0.0435
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	11.72	<.0001
Age	6	4.23	0.0003
Gender	1	7.86	0.0052

4.1.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	7.76%

4.2. Month 1 Results

4.2.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	7.14	1.89	0.0002
BuTrans Group	0.59	0.40	0.1441
Co-codamol Group	-0.23	0.21	0.2861
Tramadol Group	0.00	.	.
Under 40	-1.44	1.89	0.4482
40-49 Years	-2.01	1.89	0.2882
50-59 Years	-1.49	1.88	0.4285
60-69 Years	-1.16	1.88	0.5376
70-79 Years	-0.63	1.94	0.746
80-89 Years	0.53	2.10	0.7994
90 + Years	0.00	.	.
Male	-0.16	0.26	0.5248
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	0.81	0.39	0.0532
BuTrans vs Tramadol	0.59	0.40	0.2026
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	2.45	0.0882
Age	6	2.43	0.0258
Gender	1	0.41	0.5248

4.2.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	5.61%

4.3. Month 2 Results

4.3.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	7.73	1.93	<.0001
BuTrans Group	0.14	0.55	0.7962
Co-codamol Group	-0.51	0.25	0.0477
Tramadol Group	0.00	.	.
Under 40	-2.90	1.97	0.1424
40-49 Years	-1.95	1.94	0.3165
50-59 Years	-1.54	1.92	0.4231
60-69 Years	-1.47	1.93	0.4464
70-79 Years	-0.98	1.98	0.6214
80-89 Years	-1.10	2.21	0.6189
90 + Years	0.00	.	.
Male	-0.47	0.31	0.1323
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	0.65	0.54	0.2279
BuTrans vs Tramadol	0.14	0.55	0.7962
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	2.34	0.0980
Age	6	1.84	0.0922
Gender	1	2.28	0.1323

4.3.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	6.72%

4.4. Month 3 Results

4.4.1. Linear Regression Results

Coefficient	Estimate	Standard Error	P-value
Intercept	7.77	1.77	<.0001
BuTrans Group	0.04	0.61	0.9502
Co-codamol Group	-0.49	0.26	0.0588
Tramadol Group	0.00	.	.
Under 40	-2.26	1.80	0.2102
40-49 Years	-1.75	1.79	0.3297
50-59 Years	-1.52	1.76	0.3906
60-69 Years	-1.47	1.77	0.4052
70-79 Years	-0.47	1.82	0.7961
80-89 Years	0.71	2.14	0.7397
90 + Years	0.00	.	.
Male	-0.79	0.32	0.0150
Female	0.00	.	.
Group Comparisons			
BuTrans vs Co-codamol	0.52	0.60	0.3860
BuTrans vs Tramadol	0.04	0.61	0.9502
Type 3 Analysis			
Source	Df	F-value	P-value
Treatment Group	2	1.96	0.1442
Age	6	1.85	0.0917
Gender	1	6.02	0.0150

4.4.2. Model Goodness of Fit Statistics

Criterion	Value
R-squared	9.23%

For the goodness of fit statistics a summary below of how to interpret this:

Criterion	Description	Value Interpretation
R-squared /Pseudo R-squared	Shows how much variation in the data is explained by the fitted model	Higher percentages indicate that the model fits the data well