# Consolidated Table Results Results
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## Demographic Characteristics of Study Participants

| Characteristic | Treatment Group (n=1,247) | Control Group (n=1,253) | p-value |
|---|---|---|---|
| Age, mean (SD), years | 54.3 (12.7) | 54.1 (12.9) | 0.712 |
| Female, n (%) | 687 (55.1) | 691 (55.2) | 0.956 |
| Race/ethnicity, n (%) | | | 0.834 |
| White | 892 (71.5) | 901 (71.9) | |
| Black | 178 (14.3) | 172 (13.7) | |
| Hispanic | 124 (9.9) | 129 (10.3) | |
| Other | 53 (4.3) | 51 (4.1) | |
| Education, n (%) | | | 0.621 |
| High school or less | 412 (33.0) | 428 (34.2) | |
| Some college | 489 (39.2) | 481 (38.4) | |
| College graduate or more | 346 (27.8) | 344 (27.5) | |
| Body mass index, mean (SD), kg/m² | 28.6 (5.4) | 28.7 (5.5) | 0.658 |
| Smoking status, n (%) | | | 0.789 |
| Never | 623 (50.0) | 631 (50.4) | |
| Former | 498 (39.9) | 492 (39.3) | |
| Current | 126 (10.1) | 130 (10.4) | |
| Comorbidities, n (%) | | | |
| Hypertension | 567 (45.5) | 571 (45.6) | 0.967 |
| Diabetes mellitus | 234 (18.8) | 241 (19.2) | 0.789 |
| Chronic kidney disease | 89 (7.1) | 92 (7.3) | 0.845 |
| Cardiovascular disease | 156 (12.5) | 162 (12.9) | 0.756 |
| Baseline severity score, mean (SD) | 42.1 (8.3) | 42.0 (8.4) | 0.812 |
| Duration of condition, mean (SD), years | 6.2 (4.1) | 6.3 (4.2) | 0.623 |

## Primary Outcomes by Treatment Group

| Outcome | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Primary endpoint, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Change in severity score, mean (SD) | -12.4 (9.1) | -8.7 (9.3) | -3.7 (-4.9 to -2.5) | <0.001 |
| Clinically meaningful improvement, n (%) | 712 (57.1) | 598 (47.7) | 9.4 (5.8 to 13.0) | <0.001 |
| Time to event, median (IQR), days | 84 (56–112) | 112 (84–140) | -28 (-35 to -21) | <0.001 |

## Secondary Outcomes by Treatment Group

| Outcome | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Quality of life score, mean (SD) | 68.3 (14.2) | 62.1 (14.5) | 6.2 (4.9 to 7.5) | <0.001 |
| Functional status, mean (SD) | 72.5 (12.8) | 67.9 (13.1) | 4.6 (3.4 to 5.8) | <0.001 |
| Hospitalization, n (%) | 89 (7.1) | 134 (10.7) | -3.6 (-5.9 to -1.3) | 0.002 |
| Emergency department visit, n (%) | 156 (12.5) | 203 (16.2) | -3.7 (-6.5 to -0.9) | 0.009 |
| Medication adherence, mean (SD), % | 87.4 (11.2) | 82.6 (12.1) | 4.8 (3.6 to 6.0) | <0.001 |
| Patient satisfaction, mean (SD) | 4.2 (0.8) | 3.8 (0.9) | 0.4 (0.3 to 0.5) | <0.001 |

## Subgroup Analysis of Treatment Effects

| Subgroup | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Age <65 years | 512 (52.3) | 421 (43.0) | 9.3 (5.1 to 13.5) | <0.001 |
| Age ≥65 years | 111 (38.4) | 80 (27.7) | 10.7 (2.8 to 18.6) | 0.008 |
| Female | 356 (51.8) | 278 (40.2) | 11.6 (6.8 to 16.4) | <0.001 |
| Male | 267 (48.1) | 223 (39.8) | 8.3 (2.4 to 14.2) | 0.006 |
| White | 445 (49.9) | 358 (39.7) | 10.2 (5.9 to 14.5) | <0.001 |
| Black | 89 (50.0) | 68 (39.5) | 10.5 (0.2 to 20.8) | 0.046 |
| Hispanic | 62 (50.0) | 49 (38.0) | 12.0 (-0.3 to 24.3) | 0.057 |
| Other | 27 (50.9) | 26 (51.0) | -0.1 (-16.8 to 16.6) | 0.992 |
| Baseline severity score ≥42 | 334 (53.6) | 251 (40.3) | 13.3 (7.8 to 18.8) | <0.001 |
| Baseline severity score <42 | 289 (46.4) | 250 (40.1) | 6.3 (0.5 to 12.1) | 0.033 |

## Adverse Events and Safety Outcomes

| Adverse Event | Treatment Group (n=1,247) | Control Group (n=1,253) | Risk Difference (95% CI) | p-value |
|---|---|---|---|---|
| Any adverse event, n (%) | 534 (42.8) | 489 (39.0) | 3.8 (0.1 to 7.5) | 0.044 |
| Serious adverse event, n (%) | 67 (5.4) | 72 (5.7) | -0.3 (-2.4 to 1.8) | 0.781 |
| Discontinuation due to adverse event, n (%) | 89 (7.1) | 41 (3.3) | 3.8 (1.8 to 5.8) | <0.001 |
| Nausea, n (%) | 178 (14.3) | 52 (4.1) | 10.2 (7.8 to 12.6) | <0.001 |
| Headache, n (%) | 156 (12.5) | 134 (10.7) | 1.8 (-1.0 to 4.6) | 0.204 |
| Dizziness, n (%) | 112 (9.0) | 67 (5.3) | 3.7 (1.5 to 5.9) | 0.001 |
| Fatigue, n (%) | 134 (10.7) | 98 (7.8) | 2.9 (0.4 to 5.4) | 0.024 |
| Diarrhea, n (%) | 145 (11.6) | 61 (4.9) | 6.7 (4.5 to 8.9) | <0.001 |
| Rash, n (%) | 67 (5.4) | 34 (2.7) | 2.7 (0.8 to 4.6) | 0.005 |
| Death, n (%) | 12 (1.0) | 15 (1.2) | -0.2 (-1.1 to 0.7) | 0.654 |

## Laboratory Values at Baseline and Follow-up

| Laboratory Test | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Hemoglobin, mean (SD), g/dL | 13.8 (1.4) | 13.7 (1.5) | 0.1 (0.0 to 0.2) | 0.089 |
| White blood cell count, mean (SD), ×10³/μL | 7.2 (2.1) | 7.3 (2.2) | -0.1 (-0.3 to 0.1) | 0.312 |
| Platelet count, mean (SD), ×10³/μL | 245 (62) | 248 (65) | -3 (-9 to 3) | 0.356 |
| Creatinine, mean (SD), mg/dL | 1.1 (0.3) | 1.1 (0.3) | 0.0 (0.0 to 0.0) | 0.923 |
| Glucose, mean (SD), mg/dL | 112 (28) | 114 (30) | -2 (-5 to 1) | 0.198 |
| Total cholesterol, mean (SD), mg/dL | 198 (42) | 201 (44) | -3 (-8 to 2) | 0.241 |
| HDL cholesterol, mean (SD), mg/dL | 52 (14) | 51 (13) | 1 (0 to 2) | 0.067 |
| LDL cholesterol, mean (SD), mg/dL | 118 (35) | 121 (37) | -3 (-7 to 1) | 0.134 |
| Triglycerides, mean (SD), mg/dL | 145 (68) | 152 (72) | -7 (-15 to 1) | 0.089 |
| Alanine aminotransferase, mean (SD), U/L | 28 (12) | 29 (13) | -1 (-2 to 0) | 0.178 |

## Medication Adherence and Concomitant Medications

| Medication | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Medication adherence, mean (SD), % | 87.4 (11.2) | 82.6 (12.1) | 4.8 (3.6 to 6.0) | <0.001 |
| Concomitant medication use, n (%) | 623 (50.0) | 598 (47.7) | 2.3 (-1.4 to 6.0) | 0.224 |
| Antihypertensive medication, n (%) | 567 (45.5) | 571 (45.6) | -0.1 (-3.8 to 3.6) | 0.967 |
| Antidiabetic medication, n (%) | 234 (18.8) | 241 (19.2) | -0.4 (-3.2 to 2.4) | 0.789 |
| Statin medication, n (%) | 312 (25.0) | 298 (23.8) | 1.2 (-2.1 to 4.5) | 0.478 |
| Antiplatelet medication, n (%) | 189 (15.2) | 178 (14.2) | 1.0 (-1.7 to 3.7) | 0.467 |
| Anticoagulant medication, n (%) | 67 (5.4) | 72 (5.7) | -0.3 (-2.4 to 1.8) | 0.781 |
| Number of medications, mean (SD) | 3.2 (1.8) | 3.1 (1.9) | 0.1 (-0.1 to 0.3) | 0.312 |

## Quality of Life Assessments

| Domain | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Physical functioning, mean (SD) | 72.5 (12.8) | 67.9 (13.1) | 4.6 (3.4 to 5.8) | <0.001 |
| Role limitations due to physical health, mean (SD) | 68.3 (14.2) | 62.1 (14.5) | 6.2 (4.9 to 7.5) | <0.001 |
| Bodily pain, mean (SD) | 65.4 (16.1) | 60.2 (16.4) | 5.2 (3.8 to 6.6) | <0.001 |
| General health, mean (SD) | 70.1 (13.5) | 64.8 (13.8) | 5.3 (4.1 to 6.5) | <0.001 |
| Vitality, mean (SD) | 62.8 (15.2) | 57.4 (15.5) | 5.4 (4.0 to 6.8) | <0.001 |
| Social functioning, mean (SD) | 74.2 (12.1) | 69.5 (12.4) | 4.7 (3.6 to 5.8) | <0.001 |
| Role limitations due to emotional problems, mean (SD) | 71.6 (13.8) | 66.3 (14.1) | 5.3 (4.0 to 6.6) | <0.001 |
| Mental health, mean (SD) | 73.5 (11.9) | 68.7 (12.2) | 4.8 (3.7 to 5.9) | <0.001 |
| Physical component summary, mean (SD) | 71.2 (11.4) | 65.8 (11.7) | 5.4 (4.2 to 6.6) | <0.001 |
| Mental component summary, mean (SD) | 72.8 (10.6) | 67.9 (10.9) | 4.9 (3.8 to 6.0) | <0.001 |

## Economic Evaluation Results

| Cost Category | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Total healthcare cost, mean (SD), $ | 12,847 (4,231) | 14,562 (4,518) | -1,715 (-2,089 to -1,341) | <0.001 |
| Medication cost, mean (SD), $ | 3,421 (1,156) | 2,847 (1,089) | 574 (478 to 670) | <0.001 |
| Hospitalization cost, mean (SD), $ | 4,218 (2,847) | 5,634 (3,012) | -1,416 (-1,689 to -1,143) | <0.001 |
| Emergency department cost, mean (SD), $ | 1,156 (892) | 1,489 (1,034) | -333 (-412 to -254) | <0.001 |
| Outpatient visit cost, mean (SD), $ | 2,847 (1,234) | 3,156 (1,312) | -309 (-412 to -206) | <0.001 |
| Laboratory cost, mean (SD), $ | 1,205 (567) | 1,436 (623) | -231 (-289 to -173) | <0.001 |
| Quality-adjusted life years, mean (SD) | 0.742 (0.156) | 0.681 (0.162) | 0.061 (0.047 to 0.075) | <0.001 |
| Incremental cost-effectiveness ratio, $ per QALY | 28,115 | | | |

## Sensitivity Analysis Results

| Analysis | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Primary analysis, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Per-protocol analysis, n (%) | 589 (52.1) | 478 (41.2) | 10.9 (7.1 to 14.7) | <0.001 |
| Multiple imputation, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Complete case analysis, n (%) | 589 (52.1) | 478 (41.2) | 10.9 (7.1 to 14.7) | <0.001 |
| Adjusted for baseline severity, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Adjusted for age and sex, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Adjusted for all covariates, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Excluding protocol violators, n (%) | 589 (52.1) | 478 (41.2) | 10.9 (7.1 to 14.7) | <0.001 |
| Worst-case imputation, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |
| Best-case imputation, n (%) | 623 (50.0) | 501 (40.0) | 10.0 (6.4 to 13.6) | <0.001 |

## Regression Analysis of Predictors of Outcome

| Predictor | Odds Ratio (95% CI) | p-value |
|---|---|---|
| Treatment group | 1.52 (1.21 to 1.91) | <0.001 |
| Age, per 10 years | 0.94 (0.87 to 1.02) | 0.142 |
| Female sex | 1.08 (0.86 to 1.36) | 0.512 |
| Baseline severity score | 0.97 (0.95 to 0.99) | 0.003 |
| Duration of condition, per year | 0.98 (0.94 to 1.02) | 0.312 |
| Hypertension | 1.12 (0.89 to 1.41) | 0.334 |
| Diabetes mellitus | 0.91 (0.69 to 1.20) | 0.501 |
| Chronic kidney disease | 0.78 (0.52 to 1.17) | 0.231 |
| Cardiovascular disease | 0.85 (0.61 to 1.18) | 0.334 |
| Medication adherence, per 10% | 1.34 (1.21 to 1.48) | <0.001 |

## Interaction Effects Between Treatment and Covariates

| Interaction | Odds Ratio (95% CI) | p-value |
|---|---|---|
| Treatment × age | 0.98 (0.96 to 1.00) | 0.089 |
| Treatment × sex | 1.04 (0.78 to 1.39) | 0.789 |
| Treatment × baseline severity | 1.01 (0.99 to 1.03) | 0.312 |
| Treatment × duration of condition | 0.99 (0.95 to 1.03) | 0.623 |
| Treatment × hypertension | 1.08 (0.81 to 1.44) | 0.589 |
| Treatment × diabetes mellitus | 0.92 (0.65 to 1.30) | 0.634 |
| Treatment × chronic kidney disease | 0.85 (0.52 to 1.39) | 0.512 |
| Treatment × cardiovascular disease | 0.88 (0.59 to 1.31) | 0.534 |
| Treatment × medication adherence | 1.12 (0.98 to 1.28) | 0.089 |

## Missing Data Patterns and Imputation Results

| Variable | Missing, n (%) | Imputed Mean (SD) | Observed Mean (SD) | p-value |
|---|---|---|---|---|
| Primary outcome | 0 (0.0) | | | |
| Baseline severity score | 12 (0.5) | 42.0 (8.4) | 42.0 (8.4) | 0.998 |
| Age | 0 (0.0) | | | |
| Sex | 0 (0.0) | | | |
| Race/ethnicity | 23 (0.9) | | | |
| Education | 31 (1.2) | | | |
| Body mass index | 18 (0.7) | 28.7 (5.5) | 28.7 (5.5) | 0.987 |
| Smoking status | 15 (0.6) | | | |
| Comorbidities | 0 (0.0) | | | |
| Duration of condition | 9 (0.4) | 6.3 (4.2) | 6.3 (4.2) | 0.991 |

## Per-Protocol Analysis Results

| Outcome | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Primary endpoint, n (%) | 589 (52.1) | 478 (41.2) | 10.9 (7.1 to 14.7) | <0.001 |
| Change in severity score, mean (SD) | -13.1 (9.0) | -8.7 (9.3) | -4.4 (-5.6 to -3.2) | <0.001 |
| Clinically meaningful improvement, n (%) | 678 (59.9) | 571 (45.6) | 14.3 (10.5 to 18.1) | <0.001 |
| Time to event, median (IQR), days | 84 (56–112) | 112 (84–140) | -28 (-35 to -21) | <0.001 |
| Quality of life score, mean (SD) | 69.1 (14.0) | 62.1 (14.5) | 7.0 (5.7 to 8.3) | <0.001 |
| Functional status, mean (SD) | 73.2 (12.6) | 67.9 (13.1) | 5.3 (4.1 to 6.5) | <0.001 |
| Hospitalization, n (%) | 84 (7.1) | 134 (10.7) | -3.6 (-5.9 to -1.3) | 0.002 |
| Emergency department visit, n (%) | 148 (12.5) | 203 (16.2) | -3.7 (-6.5 to -0.9) | 0.009 |
| Medication adherence, mean (SD), % | 89.1 (10.8) | 82.6 (12.1) | 6.5 (5.3 to 7.7) | <0.001 |
| Patient satisfaction, mean (SD) | 4.3 (0.8) | 3.8 (0.9) | 0.5 (0.4 to 0.6) | <0.001 |

## Dose-Response Relationship Analysis

| Dose Group | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Low dose, n (%) | 312 (45.2) | 501 (40.0) | 5.2 (1.1 to 9.3) | 0.013 |
| Medium dose, n (%) | 289 (48.1) | 501 (40.0) | 8.1 (4.0 to 12.2) | <0.001 |
| High dose, n (%) | 322 (54.3) | 501 (40.0) | 14.3 (10.2 to 18.4) | <0.001 |
| Low dose, mean change in severity score (SD) | -9.8 (9.2) | -8.7 (9.3) | -1.1 (-2.3 to 0.1) | 0.078 |
| Medium dose, mean change in severity score (SD) | -11.6 (9.1) | -8.7 (9.3) | -2.9 (-4.1 to -1.7) | <0.001 |
| High dose, mean change in severity score (SD) | -13.8 (8.9) | -8.7 (9.3) | -5.1 (-6.3 to -3.9) | <0.001 |
| Low dose, mean quality of life score (SD) | 65.2 (14.8) | 62.1 (14.5) | 3.1 (1.8 to 4.4) | <0.001 |
| Medium dose, mean quality of life score (SD) | 67.4 (14.5) | 62.1 (14.5) | 5.3 (4.0 to 6.6) | <0.001 |
| High dose, mean quality of life score (SD) | 70.1 (13.9) | 62.1 (14.5) | 8.0 (6.7 to 9.3) | <0.001 |

## Time-to-Event Analysis Results

| Event | Treatment Group (n=1,247) | Control Group (n=1,253) | Hazard Ratio (95% CI) | p-value |
|---|---|---|---|---|
| Primary endpoint, n (%) | 623 (50.0) | 501 (40.0) | 0.68 (0.61 to 0.76) | <0.001 |
| Median time to event, days | 84 | 112 | | |
| 25th percentile, days | 56 | 84 | | |
| 75th percentile, days | 112 | 140 | | |
| Hospitalization, n (%) | 89 (7.1) | 134 (10.7) | 0.64 (0.49 to 0.83) | 0.001 |
| Emergency department visit, n (%) | 156 (12.5) | 203 (16.2) | 0.74 (0.60 to 0.91) | 0.004 |
| Death, n (%) | 12 (1.0) | 15 (1.2) | 0.79 (0.37 to 1.69) | 0.543 |
| Discontinuation due to adverse event, n (%) | 89 (7.1) | 41 (3.3) | 2.21 (1.52 to 3.21) | <0.001 |
| Loss to follow-up, n (%) | 45 (3.6) | 52 (4.1) | 0.86 (0.58 to 1.27) | 0.445 |

## Competing Risks Analysis

| Event | Treatment Group (n=1,247) | Control Group (n=1,253) | Subdistribution Hazard Ratio (95% CI) | p-value |
|---|---|---|---|---|
| Primary endpoint, n (%) | 623 (50.0) | 501 (40.0) | 0.71 (0.63 to 0.79) | <0.001 |
| Death before primary endpoint, n (%) | 12 (1.0) | 15 (1.2) | 0.80 (0.38 to 1.70) | 0.561 |
| Hospitalization before primary endpoint, n (%) | 89 (7.1) | 134 (10.7) | 0.66 (0.51 to 0.86) | 0.002 |
| Emergency department visit before primary endpoint, n (%) | 156 (12.5) | 203 (16.2) | 0.76 (0.62 to 0.93) | 0.008 |
| Discontinuation due to adverse event before primary endpoint, n (%) | 89 (7.1) | 41 (3.3) | 2.18 (1.50 to 3.17) | <0.001 |
| Loss to follow-up before primary endpoint, n (%) | 45 (3.6) | 52 (4.1) | 0.87 (0.59 to 1.28) | 0.478 |
| Cumulative incidence at 12 weeks, % | 38.2 | 28.4 | 9.8 (6.2 to 13.4) | <0.001 |
| Cumulative incidence at 24 weeks, % | 50.0 | 40.0 | 10.0 (6.4 to 13.6) | <0.001 |
| Cumulative incidence at 52 weeks, % | 58.7 | 49.1 | 9.6 (5.9 to 13.3) | <0.001 |

## Longitudinal Analysis of Repeated Measures

| Visit | Treatment Group (n=1,247) | Control Group (n=1,253) | Difference (95% CI) | p-value |
|---|---|---|---|---|
| Baseline, mean (SD) | 42.1 (8.3) | 42.0 (8.4) | 0.1 (-0.5 to 0.7) | 0.812 |
| Week 4, mean (SD) | 38.2 (8.9) | 40.1 (9.0) | -1.9 (-2.6 to -1.2) | <0.001 |
| Week 8, mean (SD) | 35.4 (9.1) | 39.2 (9.2) | -3.8 (-4.5 to -3.1) | <0.001 |
| Week 12, mean (SD) | 33.1 (9.3) | 38.5 (9.4) | -5.4 (-6.1 to -4.7) | <0.001 |
| Week 24, mean (SD) | 31.8 (9.5) | 37.9 (9.6) | -6.1 (-6.8 to -5.4) | <0.001 |
| Week 52, mean (SD) | 32.4 (9.7) | 38.1 (9.8) | -5.7 (-6.4 to -5.0) | <0.001 |
| Change from baseline to week 12, mean (SD) | -9.0 (7.2) | -3.5 (7.4) | -5.5 (-6.1 to -4.9) | <0.001 |
| Change from baseline to week 24, mean (SD) | -10.3 (7.5) | -4.1 (7.6) | -6.2 (-6.8 to -5.6) | <0.001 |
| Change from baseline to week 52, mean (SD) | -9.7 (7.8) | -3.9 (7.9) | -5.8 (-6.4 to -5.2) | <0.001 |

## Multivariate Analysis of Variance Results

| Effect | Wilks' Lambda | F-statistic | Hypothesis df | Error df | p-value |
|---|---|---|---|---|---|
| Treatment group | 0.942 | 38.21 | 4 | 2,495 | <0.001 |
| Age | 0.987 | 8.34 | 4 | 2,495 | <0.001 |
| Sex | 0.996 | 2.51 | 4 | 2,495 | 0.040 |
| Baseline severity score | 0.971 | 18.76 | 4 | 2,495 | <0.001 |
| Duration of condition | 0.998 | 1.12 | 4 | 2,495 | 0.345 |
| Hypertension | 0.994 | 3.78 | 4 | 2,495 | 0.005 |
| Diabetes mellitus | 0.997 | 1.89 | 4 | 2,495 | 0.110 |
| Chronic kidney disease | 0.999 | 0.67 | 4 | 2,495 | 0.612 |
| Cardiovascular disease | 0.998 | 1.23 | 4 | 2,495 | 0.298 |
| Medication adherence | 0.978 | 13.89 | 4 | 2,495 | <0.001 |

## Factor Analysis of Psychological Scales

| Item | Factor 1 | Factor 2 | Factor 3 | Communality |
|---|---|---|---|---|
| Item 1 | 0.72 | 0.18 | 0.12 | 0.57 |
| Item 2 | 0.68 | 0.21 | 0.09 | 0.51 |
| Item 3 | 0.75 | 0.15 | 0.14 | 0.61 |
| Item 4 | 0.71 | 0.19 | 0.11 | 0.56 |
| Item 5 | 0.69 | 0.22 | 0.08 | 0.53 |
| Item 6 | 0.74 | 0.16 | 0.13 | 0.59 |
| Item 7 | 0.70 | 0.20 | 0.10 | 0.54 |
| Item 8 | 0.73 | 0.17 | 0.12 | 0.58 |
| Item 9 | 0.67 | 0.23 | 0.07 | 0.50 |
| Item 10 | 0.76 | 0.14 | 0.15 | 0.63 |
| Item 11 | 0.18 | 0.71 | 0.16 | 0.57 |
| Item 12 | 0.21 | 0.69 | 0.13 | 0.53 |
| Item 13 | 0.15 | 0.74 | 0.18 | 0.61 |
| Item 14 | 0.19 | 0.72 | 0.14 | 0.58 |
| Item 15 | 0.22 | 0.68 | 0.11 | 0.52 |
| Item 16 | 0.16 | 0.75 | 0.17 | 0.62 |
| Item 17 | 0.20 | 0.70 | 0.12 | 0.56 |
| Item 18 | 0.17 | 0.73 | 0.15 | 0.60 |
| Item 19 | 0.23 | 0.67 | 0.10 | 0.51 |
| Item 20 | 0.14 | 0.76 | 0.19 | 0.64 |
| Item 21 | 0.11 | 0.18 | 0.74 | 0.59 |
| Item 22 | 0.13 | 0.21 | 0.71 | 0.56 |
| Item 23 | 0.09 | 0.15 | 0.76 | 0.61 |
| Item 24 | 0.12 | 0.19 | 0.73 | 0.58 |
| Item 25 | 0.14 | 0.22 | 0.69 | 0.54 |
| Item 26 | 0.10 | 0.16 | 0.75 | 0.60 |
| Item 27 | 0.13 | 0.20 | 0.72 | 0.57 |
| Item 28 | 0.11 | 0.17 | 0.74 | 0.59 |
| Item 29 | 0.15 | 0.23 | 0.68 | 0.53 |
| Item 30 | 0.08 | 0.14 | 0.77 | 0.62 |
| Eigenvalue | 8.42 | 7.91 | 7.38 | |
| Variance explained, % | 28.1 | 26.4 | 24.6 | |
| Cumulative variance, % | 28.1 | 54.5 | 79.1 | |

## Item Response Theory Analysis

| Item | Discrimination (a) | Difficulty (b) | Guessing (c) | Information at θ=0 |
|---|---|---|---|---|
| Item 1 | 1.42 | -0.85 | 0.00 | 0.71 |
| Item 2 | 1.38 | -0.72 | 0.00 | 0.68 |
| Item 3 | 1.51 | -0.91 | 0.00 | 0.74 |
| Item 4 | 1.40 | -0.78 | 0.00 | 0.69 |
| Item 5 | 1.35 | -0.65 | 0.00 | 0.66 |
| Item 6 | 1.48 | -0.88 | 0.00 | 0.73 |
| Item 7 | 1.39 | -0.74 | 0.00 | 0.69 |
| Item 8 | 1.44 | -0.81 | 0.00 | 0.71 |
| Item 9 | 1.33 | -0.62 | 0.00 | 0.65 |
| Item 10 | 1.53 | -0.94 | 0.00 | 0.75 |
| Item 11 | 1.41 | -0.79 | 0.00 | 0.70 |
| Item 12 | 1.37 | -0.68 | 0.00 | 0.67 |
| Item 13 | 1.50 | -0.90 | 0.00 | 0.74 |
| Item 14 | 1.43 | -0.80 | 0.00 | 0.71 |
| Item 15 | 1.34 | -0.64 | 0.00 | 0.66 |
| Item 16 | 1.49 | -0.89 | 0.00 | 0.73 |
| Item 17 | 1.40 | -0.76 | 0.00 | 0.69 |
| Item 18 | 1.45 | -0.83 | 0.00 | 0.72 |
| Item 19 | 1.32 | -0.60 | 0.00 | 0.64 |
| Item 20 | 1.54 | -0.96 | 0.00 | 0.76 |
| Item 21 | 1.36 | -0.71 | 0.00 | 0.67 |
| Item 22 | 1.39 | -0.75 | 0.00 | 0.69 |
| Item 23 | 1.31 | -0.58 | 0.00 | 0.63 |
| Item 24 | 1.42 | -0.78 | 0.00 | 0.70 |
| Item 25 | 1.38 | -0.70 | 0.00 | 0.68 |
| Item 26 | 1.47 | -0.86 | 0.00 | 0.72 |
| Item 27 | 1.41 | -0.77 | 0.00 | 0.70 |
| Item 28 | 1.43 | -0.81 | 0.00 | 0.71 |
| Item 29 | 1.35 | -0.66 | 0.00 | 0.66 |
| Item 30 | 1.52 | -0.93 | 0.00 | 0.75 |

## Differential Item Functioning Analysis

| Item | Mantel-Haenszel Statistic | p-value | Effect Size | Flagged |
|---|---|---|---|---|
| Item 1 | 1.23 | 0.267 | 0.04 | No |
| Item 2 | 0.87 | 0.351 | 0.03 | No |
| Item 3 | 2.14 | 0.143 | 0.06 | No |
| Item 4 | 0.56 | 0.454 | 0.02 | No |
| Item 5 | 3.41 | 0.065 | 0.08 | No |
| Item 6 | 1.78 | 0.182 | 0.05 | No |
| Item 7 | 0.92 | 0.338 | 0.03 | No |
| Item 8 | 1.05 | 0.306 | 0.04 | No |
| Item 9 | 4.67 | 0.031 | 0.09 | Yes |
| Item 10 | 1.34 | 0.247 | 0.04 | No |
| Item 11 | 0.78 | 0.377 | 0.03 | No |
| Item 12 | 2.56 | 0.110 | 0.06 | No |
| Item 13 | 1.12 | 0.290 | 0.04 | No |
| Item 14 | 0.64 | 0.424 | 0.02 | No |
| Item 15 | 3.89 | 0.049 | 0.08 | Yes |
| Item 16 | 1.45 | 0.228 | 0.05 | No |
| Item 17 | 0.71 | 0.400 | 0.03 | No |
| Item 18 | 1.89 | 0.169 | 0.05 | No |
| Item 19 | 5.12 | 0.024 | 0.10 | Yes |
| Item 20 | 1.01 | 0.315 | 0.04 | No |
| Item 21 | 0.83 | 0.363 | 0.03 | No |
| Item 22 | 1.67 | 0.196 | 0.05 | No |
| Item 23 | 6.34 | 0.012 | 0.11 | Yes |
| Item 24 | 0.95 | 0.330 | 0.03 | No |
| Item 25 | 1.28 | 0.258 | 0.04 | No |
| Item 26 | 1.56 | 0.212 | 0.05 | No |
| Item 27 | 0.74 | 0.390 | 0.03 | No |
| Item 28 | 1.09 | 