TEST

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# 1 PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link

Table : PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link

| Parameter | Estimate | Est.Error | l-95% CI | u-95% CI | Rhat | Bulk\_ESS | Tail\_ESS |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Group-Level Effects:** | | | | | | | |
| fkClientID (Number of levels: 1034) |  |  |  |  |  |  |  |
| sd(Intercept) | 0.10 | 0.01 | 0.08 | 0.12 | 1.00 | 727 | 1 982 |
| **Population-Level Effects:** | | | | | | | |
| Intercept | -0.03 | 0.04 | -0.11 | 0.04 | 1.00 | 4 680 | 4 906 |
| PHQ9\_baseline | -3.86 | 0.09 | -4.03 | -3.69 | 1.00 | 4 745 | 5 332 |
| PHQ9\_change | -2.45 | 0.13 | -2.71 | -2.20 | 1.00 | 1 647 | 3 721 |
| SOFAS\_baseline | 0.01 | 0.06 | -0.10 | 0.12 | 1.00 | 4 782 | 5 302 |
| SOFAS\_change | 0.41 | 0.07 | 0.27 | 0.55 | 1.00 | 6 274 | 5 861 |
| **Family Specific Parameters:** | | | | | | | |
| sigma | 0.10 | 0.00 | 0.09 | 0.10 | 1.00 | 859 | 2 215 |
| Formula: aqol6d\_total\_w ~ PHQ9\_baseline + PHQ9\_change + SOFAS\_baseline + SOFAS\_change + (1 | fkClientID) | | | | | | | |
| Family: gaussian Links: mu = log; sigma = identity Data: data\_tb (Number of observations: 1651) Samples: 4 chains, each with iter = 4000; warmup = 2000; thin = 1; total post-warmup samples = 8000 | | | | | | | |
| Samples were drawn using sample(hmc). For each parameter, Bulk\_ESS and Tail\_ESS are effective sample size measures, and Rhat is the potential scale reduction factor on split chains (at convergence, Rhat = 1). | | | | | | | |

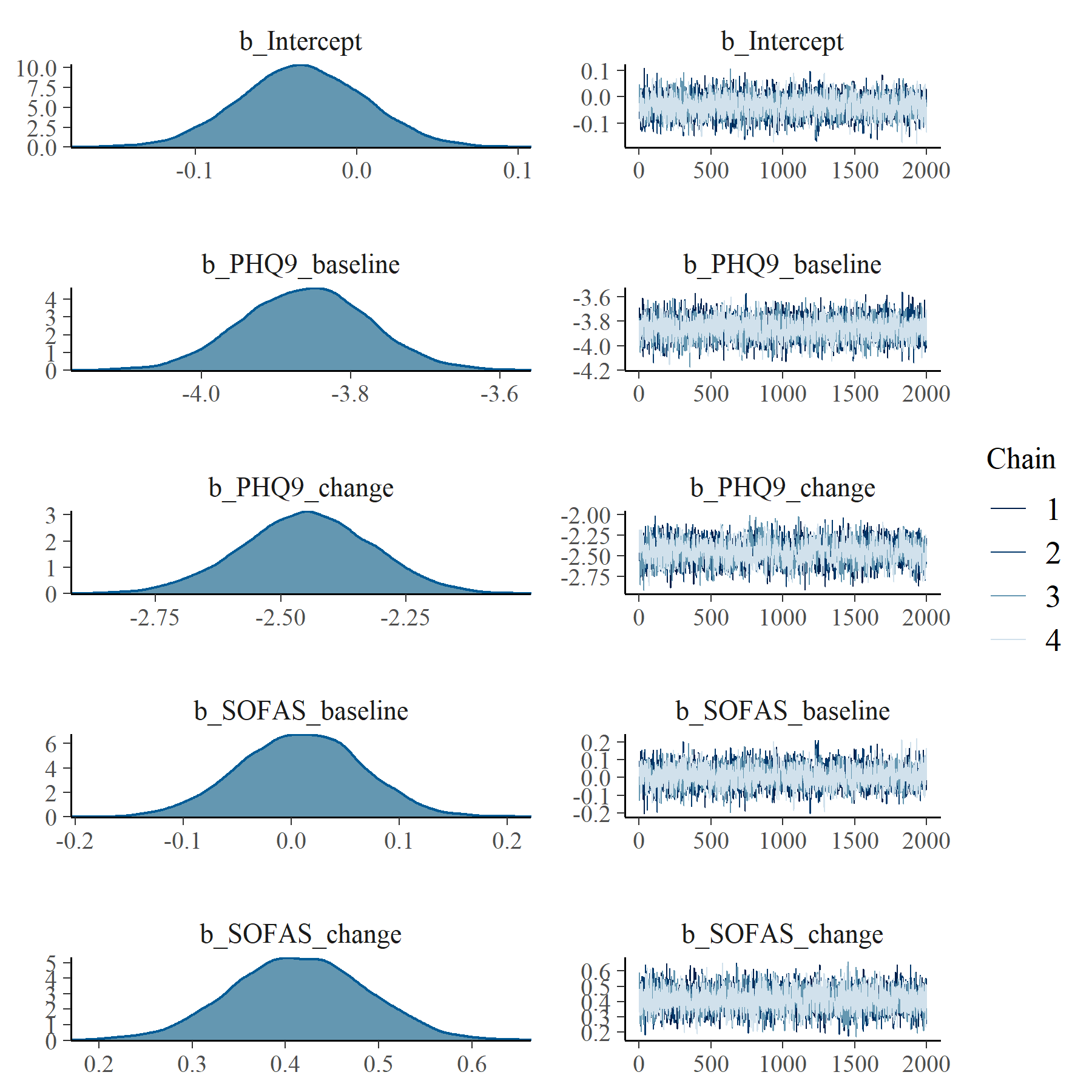


Figure : PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link population level effects

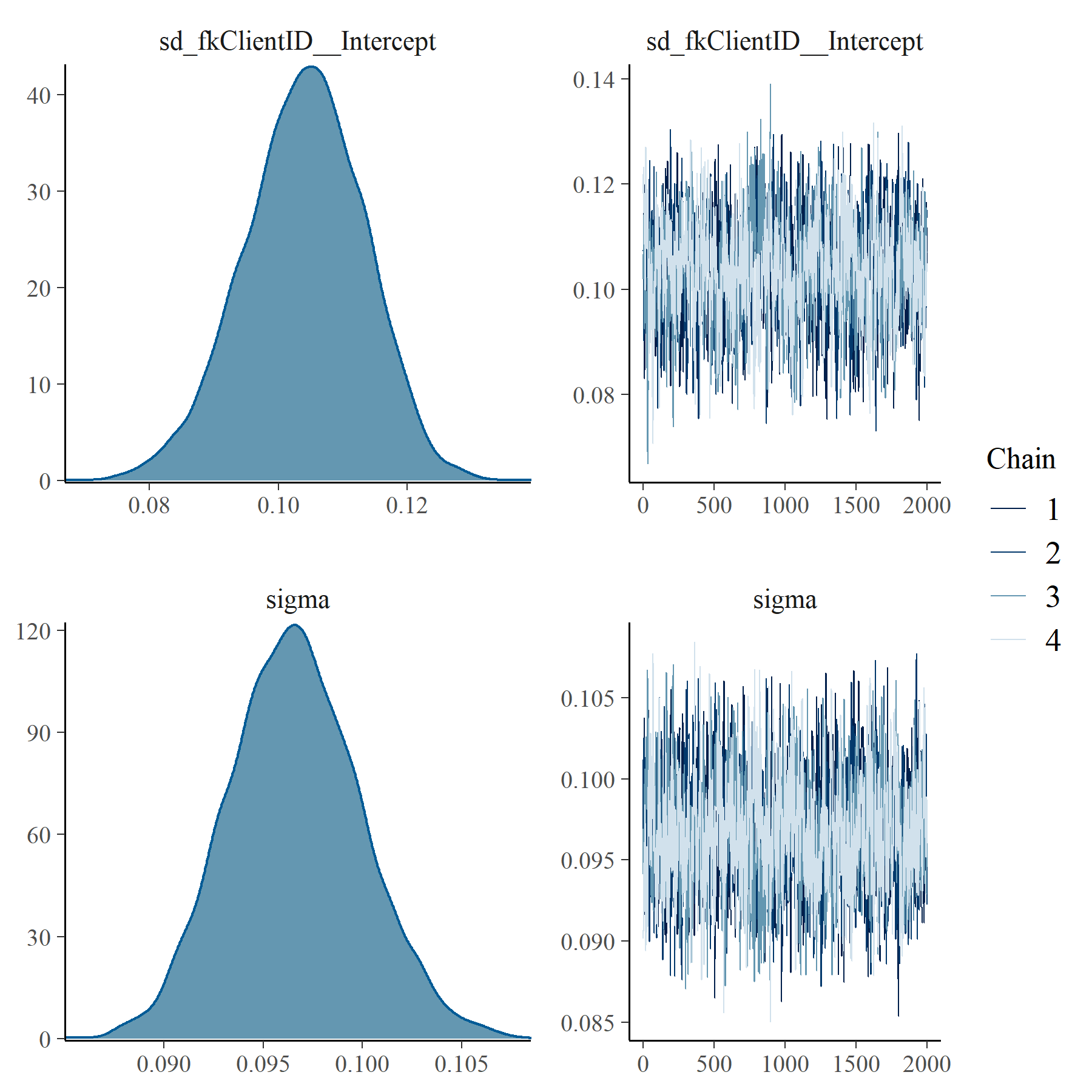


Figure : PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link group level effects

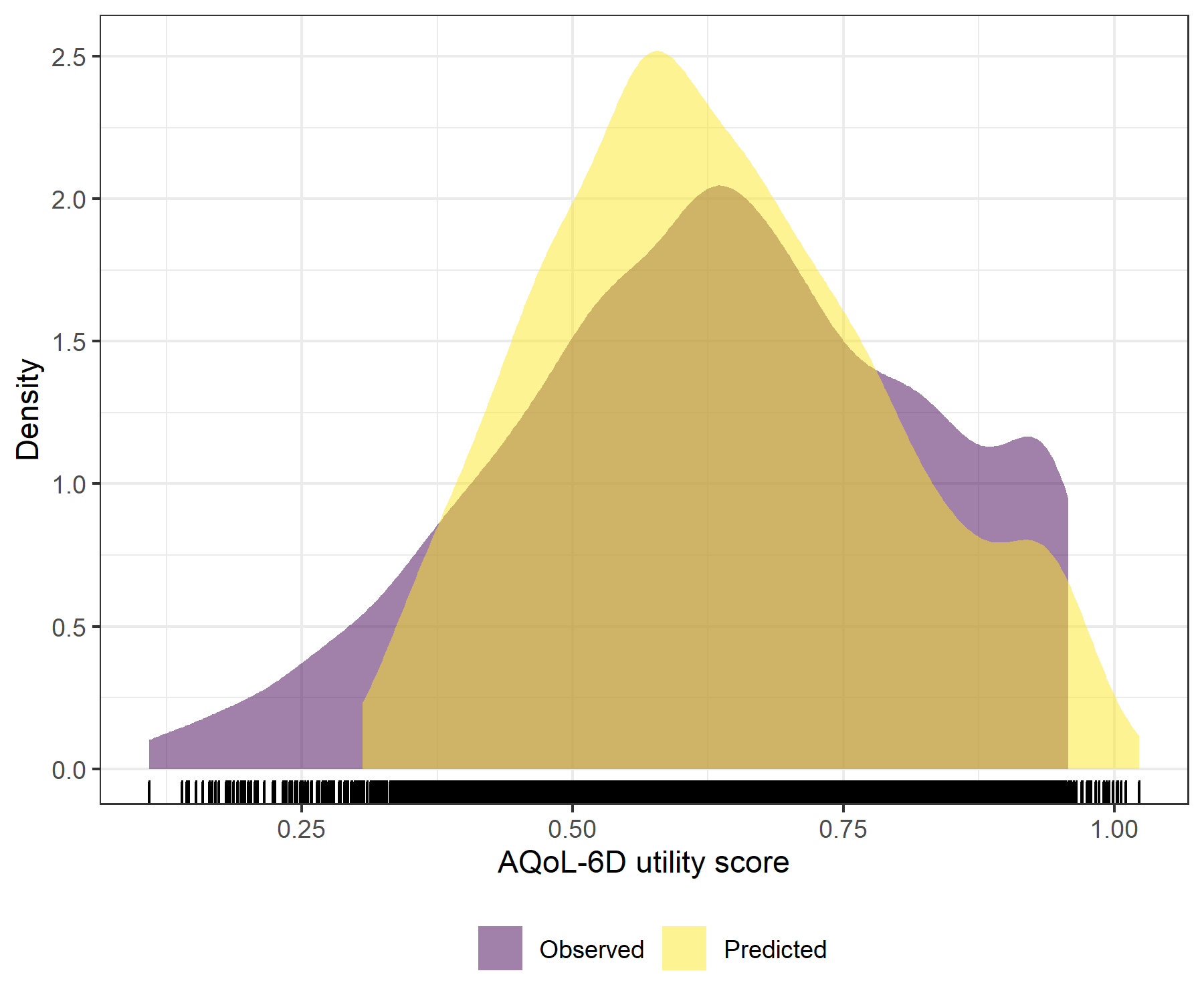


Figure : PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link comparative densities of observed and predicted data

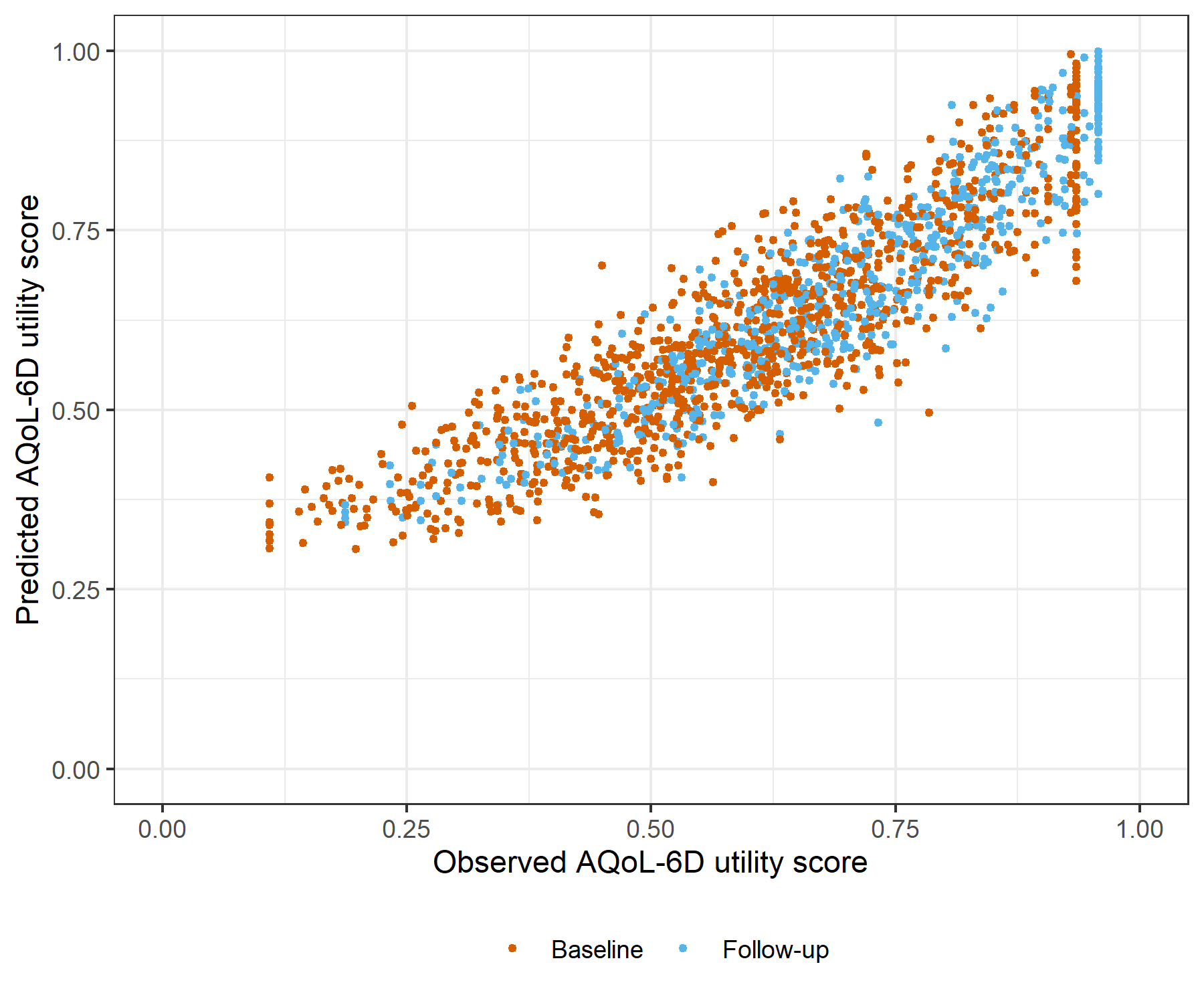


Figure : PHQ9 with SOFAS Generalised Linear Mixed Model with Gaussian distribution and log link comparative scatter plot of obsereved and predicted data

# 2 PHQ9 with SOFAS Linear Mixed Model with clog-log transformation

Table : PHQ9 with SOFAS Linear Mixed Model with clog-log transformation

| Parameter | Estimate | Est.Error | l-95% CI | u-95% CI | Rhat | Bulk\_ESS | Tail\_ESS |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Group-Level Effects:** | | | | | | | |
| fkClientID (Number of levels: 1034) |  |  |  |  |  |  |  |
| sd(Intercept) | 0.27 | 0.01 | 0.25 | 0.29 | 1.00 | 1 153 | 2 585 |
| **Population-Level Effects:** | | | | | | | |
| Intercept | 0.91 | 0.08 | 0.76 | 1.07 | 1.00 | 2 663 | 4 105 |
| PHQ9\_baseline | -7.73 | 0.17 | -8.06 | -7.40 | 1.00 | 2 660 | 4 091 |
| PHQ9\_change | -4.47 | 0.22 | -4.91 | -4.06 | 1.00 | 3 216 | 4 894 |
| SOFAS\_baseline | 0.03 | 0.12 | -0.20 | 0.25 | 1.00 | 2 587 | 4 159 |
| SOFAS\_change | 1.04 | 0.14 | 0.77 | 1.31 | 1.00 | 4 758 | 5 727 |
| **Family Specific Parameters:** | | | | | | | |
| sigma | 0.26 | 0.01 | 0.24 | 0.27 | 1.00 | 1 406 | 3 026 |
| Formula: aqol6d\_total\_w\_cloglog ~ PHQ9\_baseline + PHQ9\_change + SOFAS\_baseline + SOFAS\_change + (1 | fkClientID) | | | | | | | |
| Family: gaussian Links: mu = identity; sigma = identity Data: data\_tb (Number of observations: 1651) Samples: 4 chains, each with iter = 4000; warmup = 2000; thin = 1; total post-warmup samples = 8000 | | | | | | | |
| Samples were drawn using sample(hmc). For each parameter, Bulk\_ESS and Tail\_ESS are effective sample size measures, and Rhat is the potential scale reduction factor on split chains (at convergence, Rhat = 1). | | | | | | | |

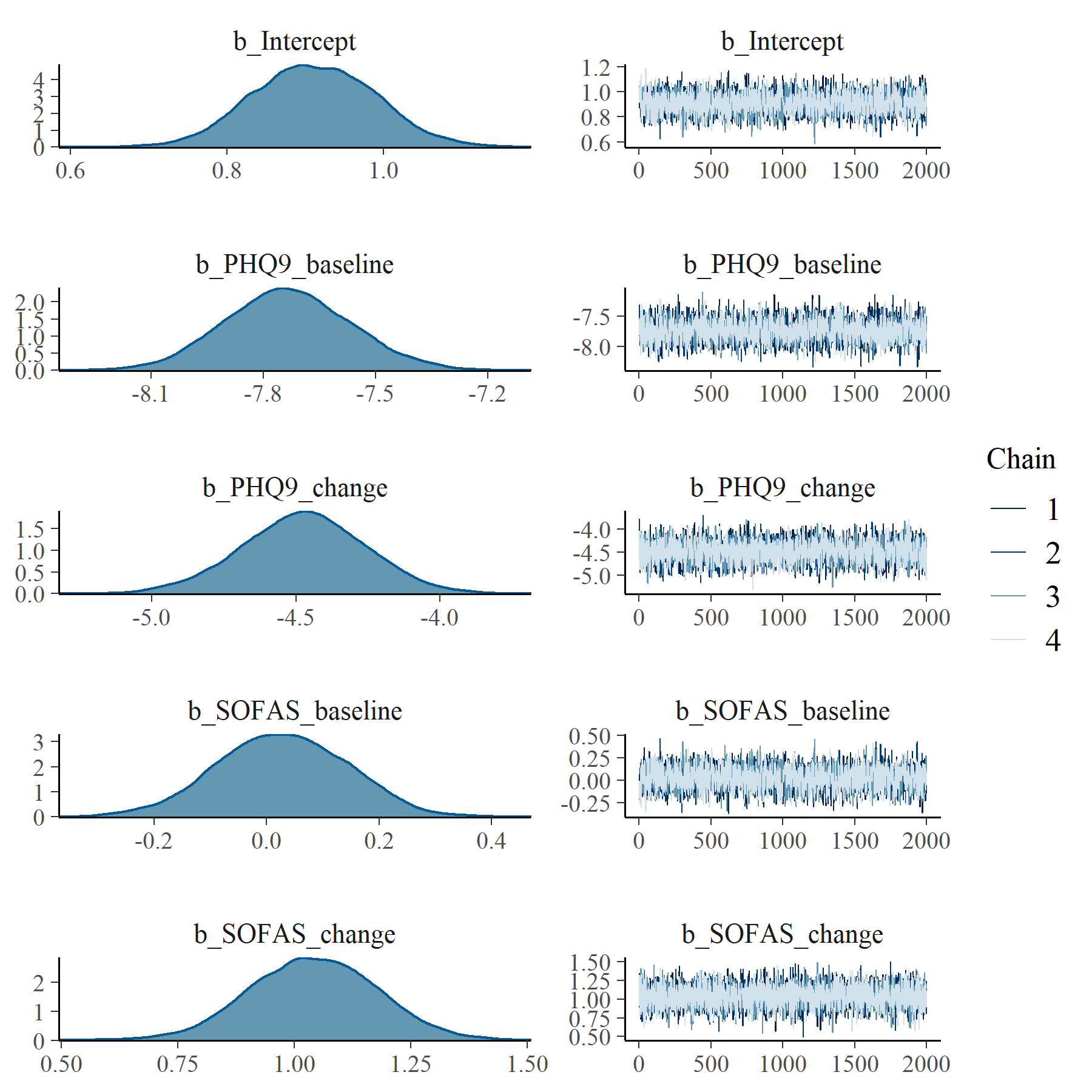


Figure : PHQ9 with SOFAS Linear Mixed Model with clog-log transformation population level effects

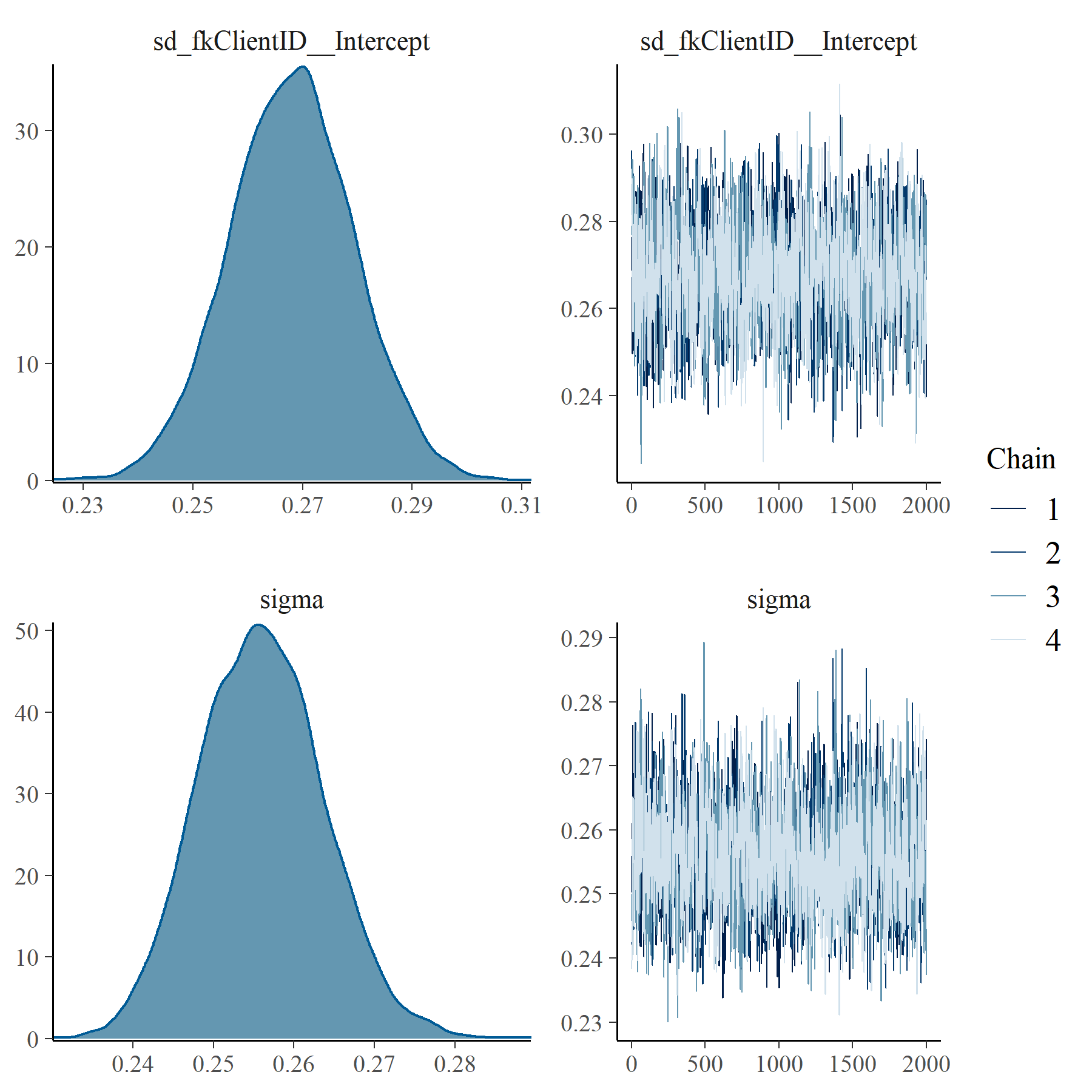


Figure : PHQ9 with SOFAS Linear Mixed Model with clog-log transformation group level effects

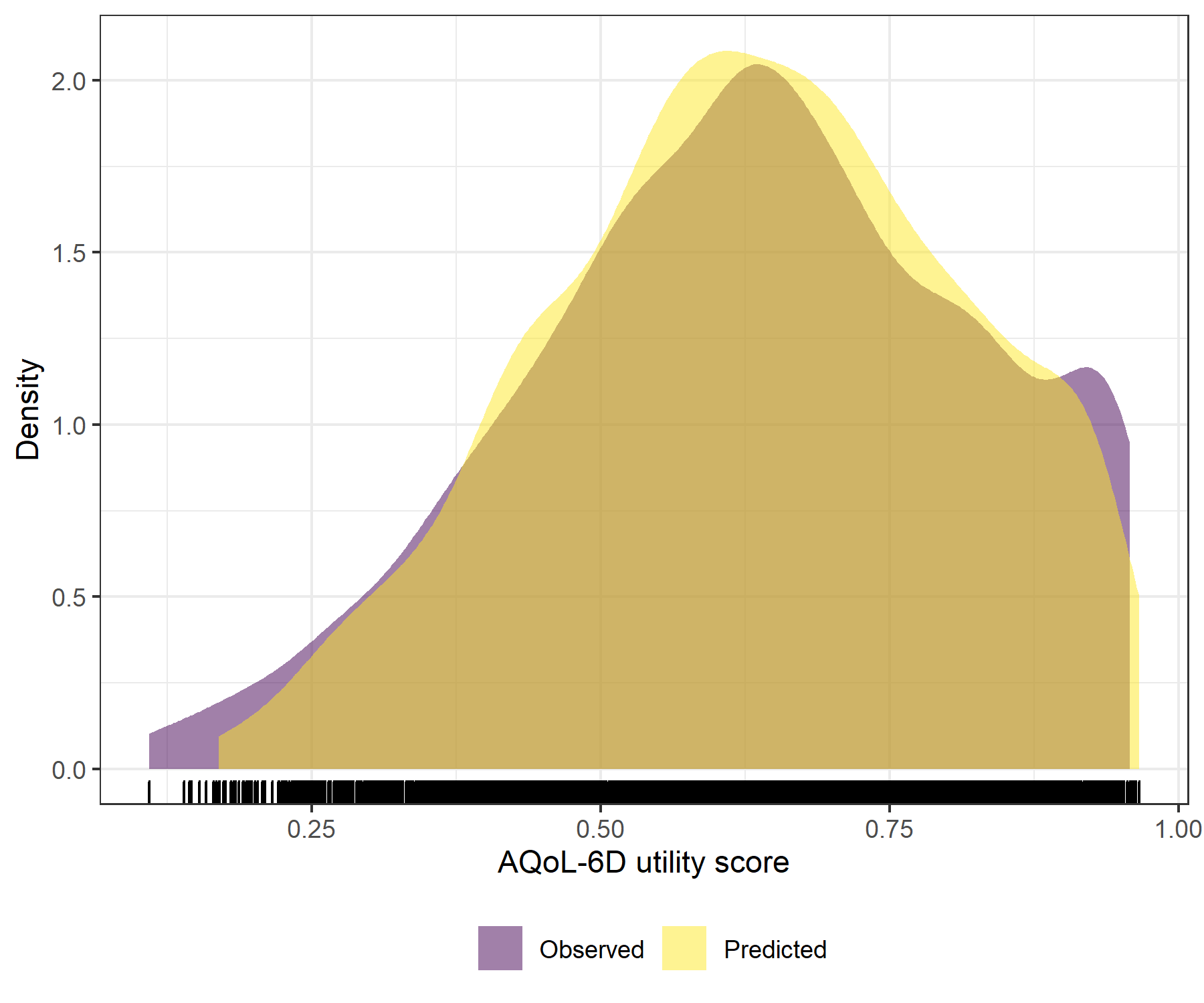


Figure : PHQ9 with SOFAS Linear Mixed Model with clog-log transformation comparative densities of observed and predicted data

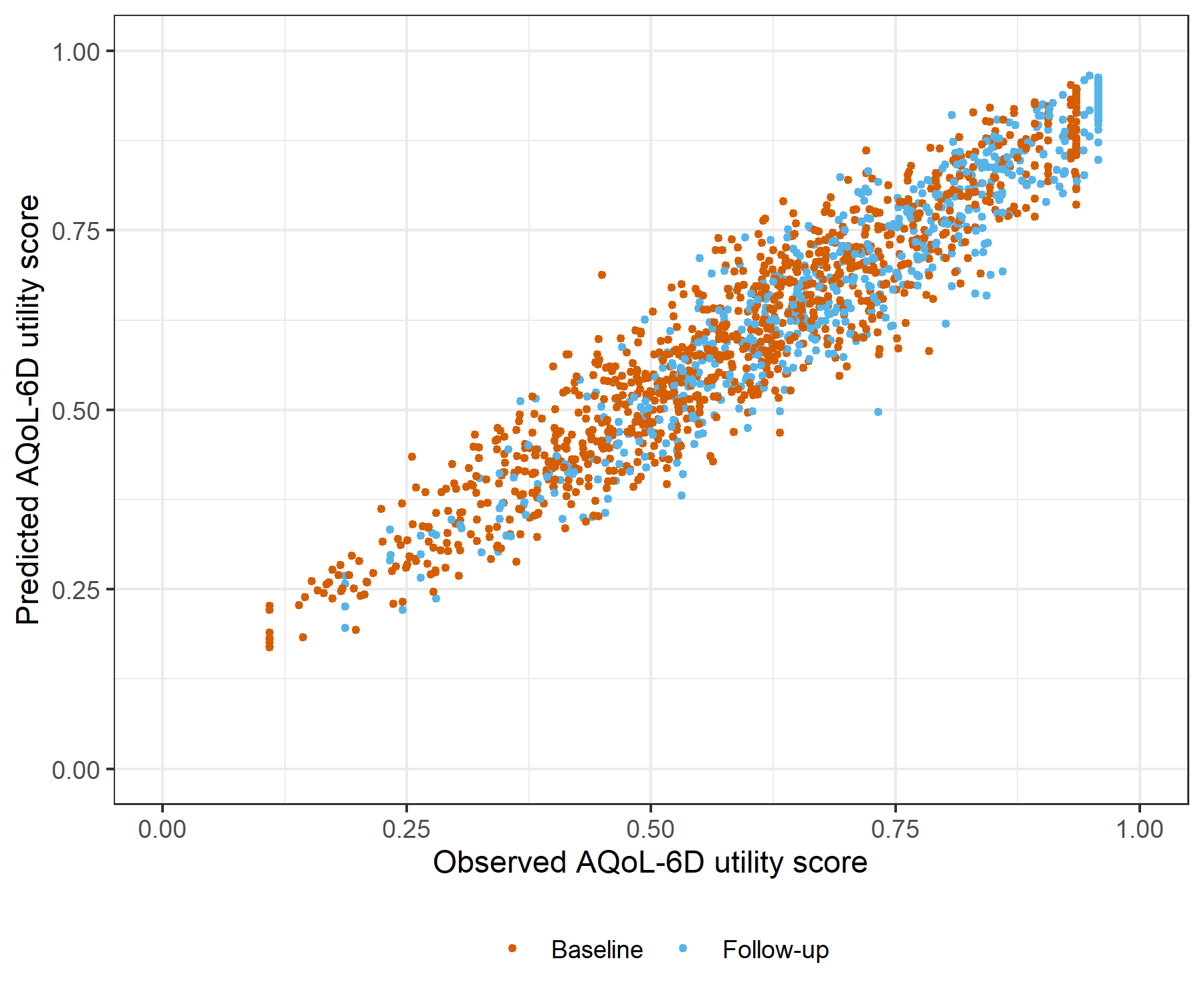


Figure : PHQ9 with SOFAS Linear Mixed Model with clog-log transformation comparative scatter plot of obsereved and predicted data