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Socioeconomic and Institutional Perceptions, Inequality Attitudes, and the Determinants of Self-Rated Health: A Multilevel Cross-National Analysis Using World Values Survey Data (2017–2022)

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Abstract

This paper examines the socioeconomic and institutional determines of self-rated health using the World value survey (2017-2022), which includes 93, 352 participants belonging to 63 countries. The study investigates the relationships between the perceived corruption, financial satisfaction, income level, perception of income inequality, and subjective health. The findings of this study show that the perceived corruption has a negative relationship with the self-rated health, and the effect is stronger in high perceived corruption levels. On the other hand, household financial satisfaction comes out as the least strong, the most robust predictor of which has a definite positive correlation with health outcomes. Better self-rated health is also shown to have a positive relationship with higher income levels with no significant or consistent change in attitudes towards income inequality. A life-cycle pattern can be observed: the younger adults have better health, the older adults have worse health and the women have not a little better health than men. Besides, the results indicate the significance of subjective health across countries basing on perceived economic security and the quality of governance.

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1. Introduction

The traditional understanding of health is a multidimensional phenomenon, which occurs as a result of a confluence of biological and medical factors, and wider social, economic, and institutional factors. According to the paradigm of the social determinants of health, the living conditions, education, employment, income, and structural inequalities play a very important role in affecting the objective and subjective health outcomes (Marmot, 2005; Solar and Irwin, 2010). Self-rated health is one of the most widely used measures in cross-national epidemiological studies because it involves the general assessment of physical, psychological and social health that the individuals have. Empirical studies reveal that self-reported health is a robust predictor of morbidity and mortality hence making it an effective measure of comparative research. Moreover, socioeconomic inequality always proves to be a relevant factor in health inequalities in the societies. The more economically advantaged people are, the healthier they report being, because they have better access to healthcare facilities and reduced exposure to chronic stress (Marmot, 2005; Gul et al., 2026). Nevertheless, subjective health variation across national lines cannot be fully accounted by using individual-level socioeconomic traits. The distribution of resources and the efficiency of health systems also depend on broader institutional contexts, i.e., the quality of governance, the quality of public service delivery, and social trust (Beckfield et al., 2013; Präg et al., 2016).

In addition, Institutional perceptions have a special place in this regard. Perceptions of corruption and trust in government institutions affect how people feel they are treated fairly, feel safe, and have access to services. Corruption may undermine the healthcare system and accountability, and create a lack of clarity regarding the accessibility of public commodities (Abdulwahab et al., 2026; Gupta et al., 2000; Vian, 2008). In addition to structural implications, perceived corruption can lead to institutional distrust and high levels of psychosocial stress, which in turn affect subjective well-being (Rothstein and Uslaner, 2005). The interconnection between corruption, the quality of governance, and life satisfaction and well-being is consistently evident in cross-national investigations (Welsch, 2008; Holmberg and Rothstein, 2011). Opinions on income inequality reflect how people understand the socioeconomic context and their beliefs about fairness in society (Gul et al., 2020). In environments where inequality is conspicuous, the notions of distributive justice would influence social trust levels, levels of stress, and health assessments. On the macro level, economic development lays a structural foundation that subsequently shapes institutional performance and population health. It is proven that higher national income is associated with better infrastructure, a stronger healthcare system, and higher living standards (Preston, 1975; Deaton, 2013).

Although the existing literature on social and institutional determinants has grown, there are relatively few studies that simultaneously examine socioeconomic perceptions, institutional perceptions, attitudes toward inequality, and national contextual factors in a single, unified, cross-national study. Based on the data of the World Values Survey (20172022), this study attempts to address that gap by determining how individual-level perceptions as well as country-level settings together affect self-rated health.

1.2 Hypotheses

H_1: Higher socioeconomic status is positively related with self-rated health across nations.

H_2: institutional perceptions (including lower corruption perception and greater institutional confidence) are connected with better self-rated health.

H_3: Individuals living in more economically developed nations report better self-rated health.

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2. Literature Review

2.1. H_1: Socioeconomic Status and Self-Rated Health

A large body of literature shows that socio-economic conditions significantly impact health outcomes. The social determinants of health framework highlight the importance of recognizing that income, education, employment, and living conditions are variables that determine objective and subjective health outcomes (Marmot, 2005; Muhammad et al. 2025; Solar and Irwin, 2010). Those with higher socio-economic status typically have better living conditions, greater access to healthcare facilities, and fewer psychosocial stressors, and hence report better self-rated health. Cross-national research indicates that socio-economic inequality continues to play a key role in producing health inequalities across societies. Marmot (2005) confirmed that health gradients persist across national borders, while Solar and Irwin (2010) emphasized the role of structural inequality in shaping population health outcomes. These results suggest that subjective health is not only a symptom of an individual's specific medical condition but is also influenced by broader socio-economic contexts. However, no socio-economic status works without institutional support. According to Beckfield et al. (2013) and Jamal el al, 2024, political and institutional arrangements define the process of translating socioeconomic resources into health outcomes. Equally, Präg et al. (2016) and Gul et al., (2023) showed that the relationship between social position and health varies across national contexts. Socio-economic and health relationships are also influenced by economic development. Preston's curve shows a strong linkage between national income and population health outcomes (Preston, 1975). Another important point made by Deaton (2013) is that economic growth will provide a better living environment, healthcare services, and nutrition, which will affect subjective health. Research on welfare states indicates that welfare, resource availability, and social protection policies can alleviate health inequalities (Navarro et al., 2006; Phelan et al., 2010). Diener et al. (2013) also demonstrated that national income and living standards are factors that lead to well-being and perceived health among societies.

2.2. H_2: Institutional Perceptions and Self-Rated Health

Institutional attitudes are important in determining welfare and health outcomes. The social-capital theory holds that trust in institutions increases social cohesion, reduces uncertainty, and enhances individuals' sense of security (Putnam, 2000). Such psychosocial processes may positively influence mental and physical well-being. Institutional trust has been linked repeatedly to well-being across various national environments. Indicatively, Helliwell and Huang (2008) examined that trust in institutions is associated with higher levels of life satisfaction, and Bjornskov (2003) established that social and institutional trust are associated with well-being in societies. At the community level, Kawachi et al. (1997) established a relationship between social capital and trust and better health outcomes. Additionally, the quality of governance and the delivery of public services are examples of how institutional environments affect health indirectly (Beckfield et al., 2013). According to Newton and Norris (2000), institutional trust increases democratic stability and social cohesion, which in turn leads to better well-being, and Zak and Knack (2001) go on to show that trust fosters cooperation and social stability. Corruption is a severe institutional factor of health and well-being. It undermines the delivery of government services, reduces government accountability, and disfigures the healthcare system (Gupta et al., 2000; Vian, 2008). Mauro (1995) demonstrated that corruption impairs economic performance and the efficiency of public expenditure, and Olken (2009) documented how corruption impairs the quality of public services. Corruption also influences psychological well-being; Rothstein and Uslaner (2005) stated that corruption undermines social cohesion and institutional trust. Cross-national data

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indicate that corruption is negatively correlated with life satisfaction and well-being (Welsch, 2008; Holmberg and Rothstein, 2011; Sulemana et al., 2017).

2.3. H3: Economic Development, Inequality Attitudes, and Self-Rated Health

Institutional attitudes are important in determining welfare and health outcomes. The social-capital theory holds that trust in institutions increases social cohesion, reduces uncertainty, and enhances individuals' sense of security (Putnam, 2000). Such psychosocial processes may positively influence mental and physical well-being. Institutional trust has been repeatedly linked to well-being across various national contexts. Indicatively, Helliwell and Huang (2008) examined that trust in institutions is associated with higher levels of life satisfaction, and Bjornskov (2003) recognized that social and institutional trust are associated with well-being in societies. At the community level, Kawachi et al. (1997) confirmed a relationship between social capital and trust and better health outcomes. Additionally, the quality of governance and the delivery of public services are examples of how institutional environments affect health indirectly (Beckfield et al., 2013; Safdar et al., 2026). According to Newton and Norris (2000), institutional trust increases democratic stability and social cohesion (Khan et al., 2023), which, in turn, leads to better well-being, and Zak and Knack (2001) demonstrated that trust fosters cooperation and social stability. Corruption is a severe institutional factor of health and well-being. It undermines the delivery of government services, reduces government accountability, and disfigures the healthcare system (Gupta et al., 2000; Ullah, et al. 2023; Vian, 2008). Mauro (1995) determined that corruption impairs economic performance and the efficiency of public expenditure, and Olken (2009) explored how corruption impairs the quality of public services. Corruption also affects psychological well-being; Rothstein and Uslaner (2005) claimed that it undermines social cohesion and institutional trust. Cross-national data indicate that corruption is negatively correlated with life satisfaction and well-being (Welsch, 2008; Holmberg and Rothstein, 2011; Zafar, et al., 2025; Sulemana et al., 2017).

3. Methodology

The paper uses data from the World Values Survey (WVS), a large-scale cross-national survey that provides nationally representative data on people's socioeconomic status, views, and well-being. The analysis sample comprises 93,352 respondents from 63 countries, further divided into seven world regions. As people are concentrated in countries, respectively, the data have a strong hierarchical structure. This is a nested structure to justify multilevel econometric models to explain the between-country and between-region variation and yield credible standard errors. Self-rated (subjective) health is a dependent variable measured on a five-point scale (1 = very poor to 5 = very good).

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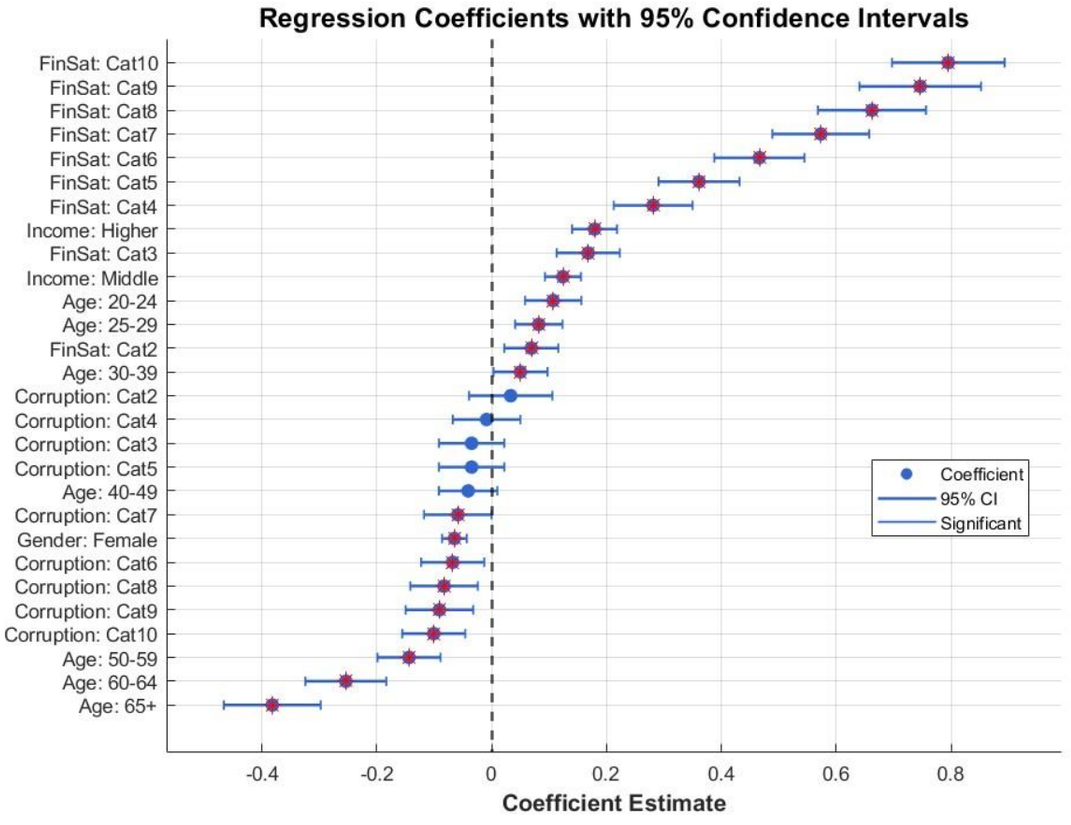

Figure 1: Regression coefficients with 95% confidence Intervals

The most critical independent variables are perceived corruption in the country (10-point scale out of no corruption to abundant corruption), satisfaction with the financial situation of the household (10-point scale including dissatisfied and satisfied), and preferences about income inequality (10-point scale including favoring more equal incomes and favoring larger income differences as motivators). The models also take into account core demographic and socioeconomic factors, such as age group, gender, and income level.

Table 1: ***Description of the Variables***

Variable	Code	Categories
State of Health (Subjective)	Q47P	(1 = Very poor, 2 = Poor, 3 = Fair, 4 = Good, 5 = Very good)
Perception of corruption in the country	Q112	(1 = There is no corruption in my country, ..., 10 = There is abundant corruption in my country)
Satisfaction with financial situation of household	Q56	(1 = Dissatisfied, ..., 10 = Satisfied)
Income inequality preference	Q106	(1 = Incomes should be more equal, ..., 10 = Larger income differences as incentives)
Age group	Q262	(1 = 15–19, 2 = 20–24, 3 = 25–29, 4 = 30–39, 5 = 40–49, 6 = 50–59, 7 = 60–64, 8 = 65+)
Gender	Q260	(1 = Male, 2 = Female)
Income level	Q275	(1 = Lower, 2 = Middle, 3 = Higher)

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This study uses mixed-effects multilevel linear regression models to examine how these variables are related. The econometric specification (baseline) is as follows:

$$State\ of\ Health_{\ (Subjective)i} = \delta_0 + \delta_1 Corruption_{\ i} + \delta_2 \text{Satisfaction with financial situation of household}_i + \delta_3 \text{Income inequality preference}_i + \delta_4 Age_i + \delta_5 Gender_i + \delta_6 Income\ Level_{\ i(PPP)} + \beta_7 Employmnet\ status_i + u_k + \varepsilon_i \quad ...(2)$$

where i represent individual observations and j represents the country-level. The parameter in question is the country-level random one, and the term, epsilon ϵij , denotes the individual-level residual variation.

Another specification is a further extension of the model that adds the random effects at the regional level:

$$State\ of\ Health_{\ (Subjective)i} = \delta_0 + \delta_1 Corruption_{\ i} + \delta_2 \text{Satisfaction with financial situation of household}_i + \delta_3 \text{Income inequality preference}_i + \delta_4 Age_i + \delta_5 Gender_i + \delta_6 Income\ Level_{\ i(PPP)} + \beta_7 Employmnet\ status_i + v_k + u_{jk} + \varepsilon_{ijk} \quad ...(3)$$

where:

- k denotes regions,
- v_k show the region-level random effect.
- u_{jk} represent the country-level random effect.

Mixed-effects multilevel regression is considered suitable for this study, since individual observations are nested within countries, thereby violating the independence assumptions of the simplest least-squares regression. The model permits country-specific (and, where relevant, region-specific) intercepts, which leave country-specific contextual heterogeneity unobserved, and give more precise standard errors and coefficient estimates. The approach to this methodology is especially justified when the intraclass correlation coefficient (ICC) is nonzero, indicating significant between-country variance in the dependent variable.

To assess robustness, the study estimates a country-fixed effects linear regression model that can be written as follows:

$$State\ of\ Health_{\ (Subjective)i} = \delta_0 + \delta_1 Xij_i + \alpha_j + \alpha_{ij}$$

The fixed effects in this specification are represented by $\alpha\, j$. With these effects included the model accounts for all time-invisible properties of each country and thus protects against bias from factors that are not observable at the country level.

4. Results and Interpretation

This part represents the empirical results of multilevel and nation-fixed-effects models with respect to the determinants of self-assessed health. The study focuses on the socioeconomic perceptions, institutional perceptions, and demographic traits. The findings are assessed against the developed hypotheses and already laid down theoretical propositions. All of these findings support a strong relationship between perceived economic security and the quality of governance and subjective health outcomes in the sampled nations.

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Table 2: ***Mixed-Effects Multilevel Linear Model (Country-Level Random Effects)***

Variable	Category	Mixed-effects multilevel linear model [Country Base]	Mixed-effects multilevel model (region + country random effects]
		Coefficient (SE)significance level	Coefficient (SE)significance level
Corruption			
	(Base: Category There is no corruption in my country)		
	2	0.055 (0.029)*	0.069 (0.029)**
	3	-0.016 (0.026)	-0.005 (0.026)
	4	-0.091 (0.027)***	-0.082 (0.027)***
	5	-0.016 (0.026)	-0.006 (0.026)
	6	-0.037 (0.027)	-0.023 (0.027)
	7	-0.029 (0.028)	-0.012 (0.028)
	8	-0.044 (0.029)	-0.025 (0.029)
	9	-0.064 (0.031)**	-0.045 (0.031)
	10- Abundant corruption	-0.085 (0.031)***	-0.062 (0.031)**
Satisfaction with financial situation of household			
	Base: Category (Dissatisfied)		
	2	0.069 (0.020)***	0.066 (0.020)***
	3	0.155 (0.017)***	0.156 (0.017)***
	4	0.229 (0.016)***	0.235 (0.016)***
	5	0.358 (0.015)***	0.369 (0.015)***
	6	0.475 (0.015)***	0.494 (0.015)***
	7	0.582 (0.015)***	0.611 (0.015)***
	8	0.670 (0.015)***	0.703 (0.015)***
	9	0.758 (0.017)***	0.793 (0.017)***
	10 Satisfied	0.800 (0.016)***	0.819 (0.016)***
Income inequality preference			
	Base: Category (Incomes more equal)		
	2	-0.003 (0.016)	
	3	-0.008 (0.014)	
	4	-0.064 (0.015)***	
	5	0.015 (0.012)	
	6	0.003 (0.013)	
	7	0.022 (0.013)*	
	8	0.032 (0.012)***	
	9	0.072 (0.014)***	
	10 Larger income differences	0.056 (0.011)***	
Age			
	Base: 15–19		
	20–24	0.128 (0.014)***	0.157 (0.014)***
	25–29	0.107 (0.014)***	0.136 (0.014)***

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	30–39	0.074 (0.013)***	0.101 (0.013)***
	40–49	-0.015 (0.013)	-0.000 (0.013)
	50–59	-0.112 (0.014)***	-0.110 (0.014)***
	60–64	-0.218 (0.016)***	-0.225 (0.016)***
	65+	-0.363 (0.017)***	-0.384 (0.017)***
Gender			
	Base: Male		
	Female	-0.061 (0.006)***	-0.068 (0.006)***
Income level			
	Base: Lower		
	Middle	0.112 (0.008)***	
	Higher	0.191 (0.008)***	
Constant	-	3.290 (0.042)***	3.365 (0.042)***

Statistic	**Value**	**Statistic**	**Value**
Observations	93,352	Observations	93,352
Countries	63	Regions	7
Wald χ^2	10004.65	Countries	63
Log likelihood	-119533.96	Wald χ^2	9259.32
ICC (country level)	0.076	Log likelihood	-119871.12
		LR test vs linear model	5091.68 ($p < 0.001$)

Table 2 demonstrated the multilevel linear model with country-level random effects shows that the perceptual and socioeconomic variables have statistically significant relationships with the dependent variable.

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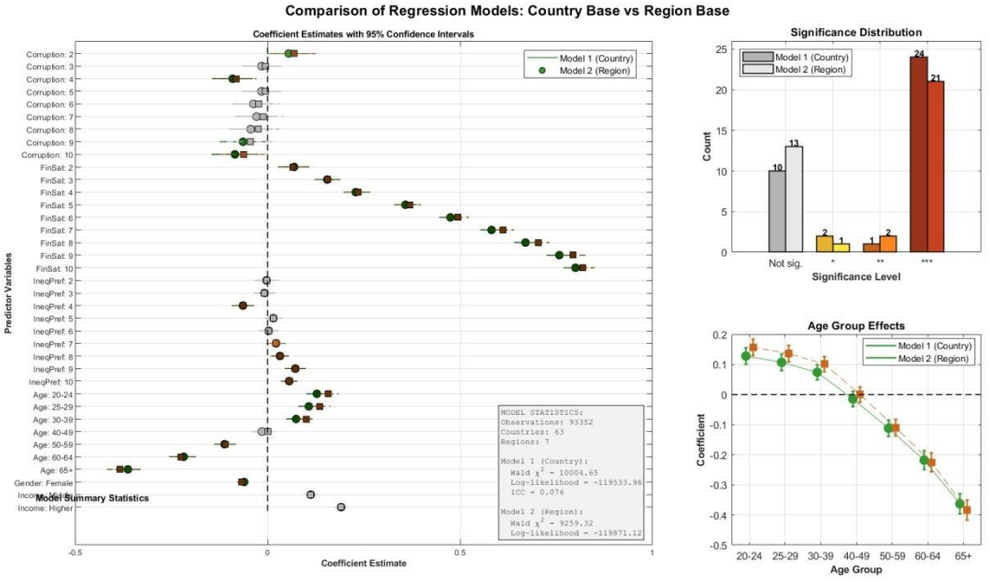

Figure 2: Comparison Of Regression Model

Perceived corruption typically shows an inverse relationship with the outcome compared to the reference category (no corruption in my country). Negative coefficients are statistically significant at high levels of corruption, as in categories 4 ($\beta = -0.091, p = < 0.001$), 9 ($\beta = -0.064, p = < 0.05$), and 10 ($\beta = -0.085, p = < 0.001$). The most salient predictor in the model is household financial situation satisfaction, with a clear increase across categories. All regression coefficients between category 2 and category 10 are negative and significant ($p < 0.001$), indicating that greater financial satisfaction is associated with greater levels of the dependent variable. Income-inequality preference shows mixed results: lower corruption categories are statistically insignificant, but higher categories (7-10) show moderate but significant effects, indicating a weak positive correlation between augmented approval of income inequalities and augmented outcome values.

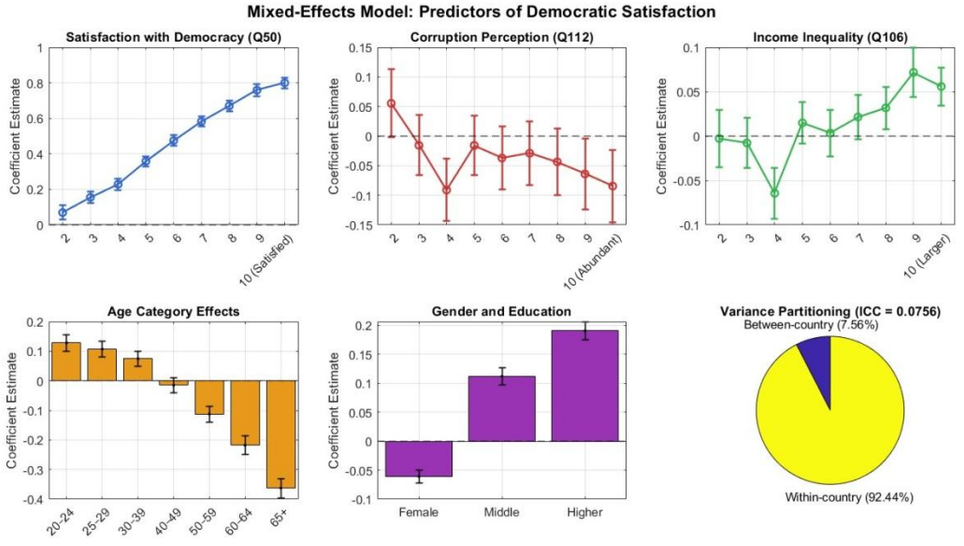

Figure 3: Mixed Effect Model

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Age has a life-cycle pattern: the younger adult generation (20-39) has significant, positive coefficients compared to the 15-19 reference group, but the older (50+) generation has increasingly negative and significant coefficients. The values of dependent variables are always lower among female respondents than among male ones (coefficient $= -0.061$, $p = 0.001$). Income level shows a positive correlation with the result: middle-income individuals (coefficient $= 0.112$, $p = 0.000$) and higher-income respondents (coefficient $= 0.191$, $p = 0.000$) have higher values than the low-income control group.

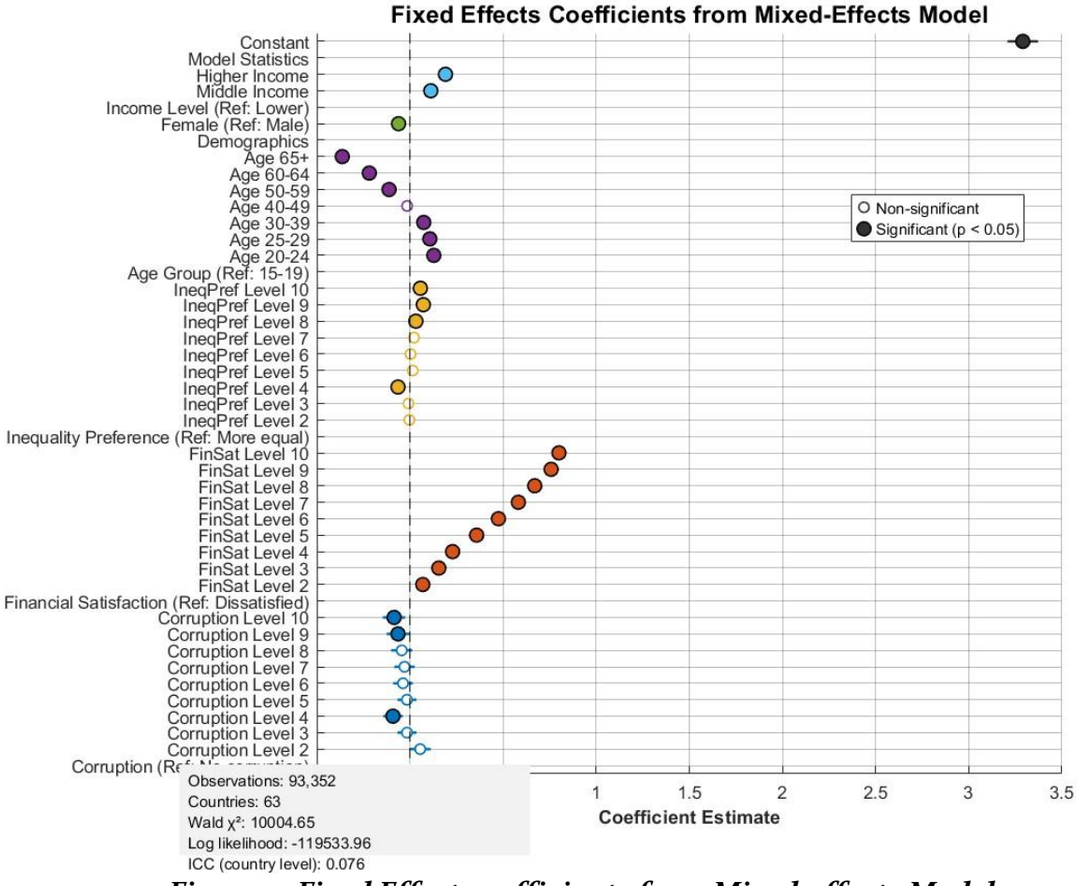

Figure 4: Fixed Effect coefficients from Mixed-effects Models

The intraclass correlation coefficient (ICC = 0.076) demonstrates that a small percentage of variance can be attributed to between-country differences, which empirically proves the necessity to adopt a multilevel modelling framework. Model 1 is estimated on the sample of 93352 observations in 63 countries. The Wald 2-statistic (2 = 10 004.65) will indicate that the collection of predictors, as a whole, is statistically significant and that the collection of predictors is collectively significant in explaining a large percentage of the variability of the dependent variable. The log-likelihood value (-119533.96) is a measure of model estimation in comparison to other specifications. The ICC value of 0.076 also supports the fact that an estimated amount of 7.6% of the variance in the dependent variable is attributed to inter-country differences which the remaining amount of variance is attributed at the individual level. This specific measurement supports the importance of the clustering by country and advocates the use of a multilevel modelling strategy instead of one-level regression analysis. The second model that addresses both regional and country-specific random effects, provides considerably similar results to Model 1 hence showing that the findings are not fragile to the

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inclusion of a hierarchical model. The correlation between perceived corruption and the dependent variable is also statistically significant; both the negative influence of category 4 (coefficient= 0.082, p = 0.001) and 10 (= 0.062, p = 0.01) are also significant. In line with the first Model, financial satisfaction of the household turns out to be the strongest predictor since all the categories that are above the reference group are all strongly and statistically significantly positively related, hence demonstrating a definite gradient effect of financial satisfaction on the dependent variable. Effects of age also replicate those observed in Model 1 where the younger adults have positive coefficients and the older respondents have negative coefficients especially the older ones who are aged 50 years and above. The differences between genders are also observed since the values of the dependent variable are significantly lower among female respondents compared to male respondents (0.068, 0.001). The model-fit data still supports the multilevel specification, and the similarity of coefficients in any of the models implies that the addition of regional random effects does not significantly reduce the association between individual-level predictors and the outcome. Combined, Model2 supports the validity and strength of the key findings of the country-level random-effects model. In Model 2, the sample size (93 352 observations) remains the same, but it adds another tier of hierarchies that included 63 countries within seven regions. The Wald -statistic is very high (= 9259.32) which indicates that the explanatory variables are statistically significant even under the multilevel specification. The log-likelihood (-119871.12) indicates the goodness of fit of the model in the case whereby random effects are included both on the regional and country level. The LR test between the multilevel model and a traditional linear model is statistically significant (LR = 5091.68, p = 0.001) the hypothesis is that the introduction of hierarchical random effects significantly increases the model fit. The fact that model-fit statistics, as well as coefficient estimates of both models are similar, shows that, although there is regional clustering, the high-level of variation is concentrated at the country level.

Table 3: ***Country Fixed-Effects Linear Regression***

		Robustness Model		
Variable	**Category**	**Coeff. (SE)**significance level	**Category**	**Coefficient (SE)**
Corruption				
	(Base: Category There is no corruption in my country)		Argentina	-0.243 (0.038)***
	2	0.033 (0.037)	Australia	-0.142 (0.033)***
	3	−0.035 (0.029)	Bangladesh	-0.375 (0.036)***
	4	−0.009 (0.030)	Armenia	-0.829 (0.036)***
	5	−0.035 (0.029)	Bolivia	-0.578 (0.033)***
	6	−0.068 (0.028)**	Brazil	-0.292 (0.034)***
	7	−0.059 (0.030)*	Canada	-0.261 (0.030)***
	8	−0.083 (0.030)***	Chile	-0.246 (0.038)***
	9	−0.091 (0.030)***	China	-0.302 (0.031)***
	10- Abundant corruption	−0.101 (0.028)***	Colombia	-0.128 (0.034)***
Satisfaction with financial situation of household			Cyprus	0.154 (0.038)***
	Base: Category (Dissatisfied)		Czechia	-0.286 (0.036)***

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	2	0.069 (0.024)***	Ethiopia	0.180 (0.036)***
	3	0.168 (0.028)***	Germany	-0.351 (0.034)***
	4	0.281 (0.035)***	Greece	0.068 (0.036)*
	5	0.361 (0.036)***	Guatemala	-0.046 (0.036)
	6	0.466 (0.040)***	Hong Kong SAR	-0.647 (0.033)***
	7	0.573 (0.043)***	Indonesia	-0.216 (0.031)***
	8	0.662 (0.048)***	Iran	-0.235 (0.035)***
	9	0.746 (0.054)***	Iraq	-0.486 (0.036)***
	10 Satisfied	0.795 (0.050)***	Japan	-0.564 (0.035)***
Income inequality preference			South Korea	-0.033 (0.036)
	Base: Category (Incomes more equal)		Lebanon	-0.180 (0.036)***
	2		Libya	0.252 (0.036)***
	3		Malaysia	-0.279 (0.036)***
	4		Mexico	-0.214 (0.034)***
	5		Netherlands	-0.386 (0.033)***
	6		New Zealand	-0.134 (0.038)***
	7		Nigeria	0.088 (0.036)**
	8		Pakistan	-0.136 (0.033)***
	9		Peru	-0.442 (0.035)***
	10 Larger income differences		Philippines	-0.535 (0.036)***
Age			Romania	-0.320 (0.036)***
	Base: 15–19		Russia	-0.584 (0.033)***
	20–24	0.107 (0.025)***	Serbia	-0.411 (0.037)***
	25–29	0.082 (0.021)***	Singapore	-0.217 (0.033)***
	30–39	0.050 (0.024)*	Slovakia	-0.525 (0.036)***
	40–49	–0.041 (0.026)	Thailand	-0.187 (0.035)***
	50–59	–0.144 (0.028)***	Tunisia	-0.627 (0.036)***
	60–64	–0.254 (0.036)***	Turkey	-0.249 (0.032)***
	65+	–0.382 (0.043)***	Ukraine	-0.716 (0.036)***
Gender			Egypt	-0.516 (0.036)***
	Base: Male		Great Britain	-0.329 (0.032)***
	Female	–0.065 (0.011)***	United States	-0.190 (0.032)***
			Uruguay	-0.081 (0.038)**
Income level			Venezuela	-0.132 (0.036)***
	Base: Lower		Northern Ireland	-0.275 (0.049)***
	Middle	0.124 (0.016)***		
	Higher	0.179 (0.020)***		
Constant	-	3.36(0.577)***		

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Statistic	Value
Obs.	93,511
Countries	64
R^2	0.157
Adj. R^2	0.156
Root MSE	0.802

The findings from the country-fixed-effects linear regression are presented in Table 3, based on 93,511 observations from 64 countries. The model includes country fixed effects, which capture unobservable, time-invariant country characteristics, allowing the coefficients to be interpreted as within-country correlations rather than cross-country disparities. The relationship between perceived corruption and the dependent variable is more negative and consistent than in the multilevel models. Compared to the reference category (no corruption in my country), the negative, statistically significant coefficients indicate higher levels of corruption (range 6 to 10). Indicatively, in category 8 ($\beta = 0.083$, $p < 0.001$), category 9 ($\beta = 0.091$, $p < 0.001$), and category 10 (abundant corruption) (β = 0.101, p 0.001), more perceived corruption in countries is associated with lower values of the dependent variable, which implies that there is a strong negative relationship between corruption perception and the outcome despite considering country-specific unobserved heterogeneity.

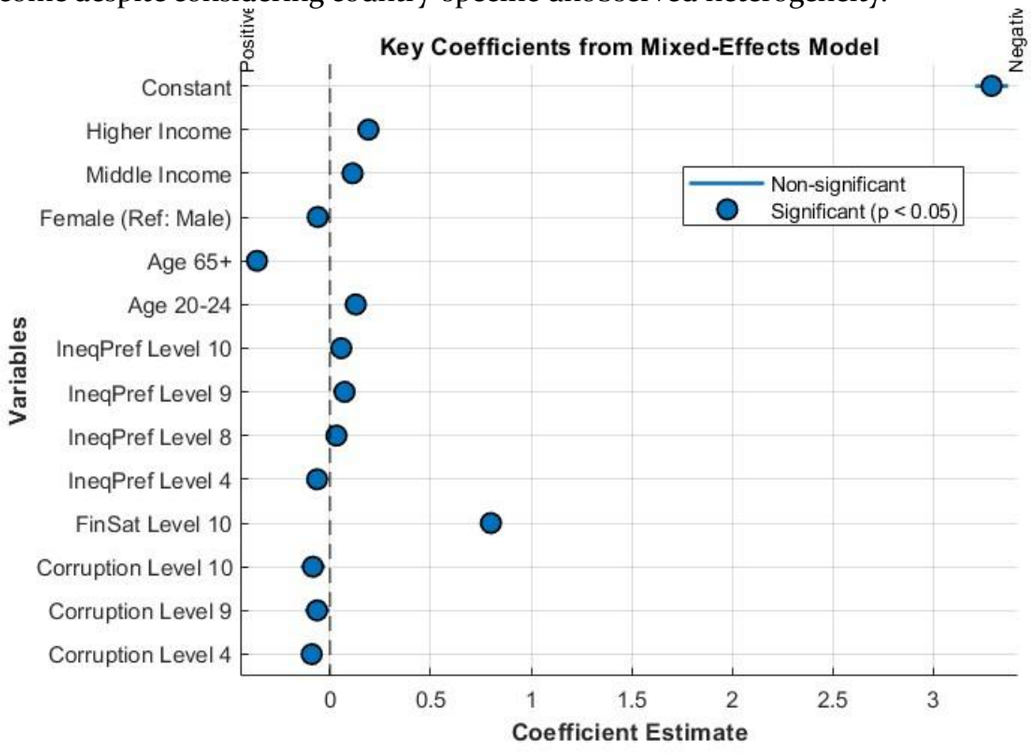

Figure 5: Significant And Non-Significant

The best predictor in the fixed-effects model remains satisfaction with the household's financial situation. The above categories are positive and highly statistically significant ($p <$ 0.001, monotonically increasing across the categories up to ($\beta = 0.795$, $p < 0.001$), with the coefficients for the other categories above 0.001 being -0.100 ($p < 0.001$). This validates the existence of a significant, uniform gradient in the correlation between perceived financial well-being and the dependent variable after controlling for country fixed effects. Income inequality preferences do not have any strong or consistent effects in the fixed-effects specification,

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indicating that attitudes towards the income distribution are not strongly correlated with the dependent variable relative to economic satisfaction or corruption perceptions. Age presents a life-cycle trend, as the model has in the multilevel models.

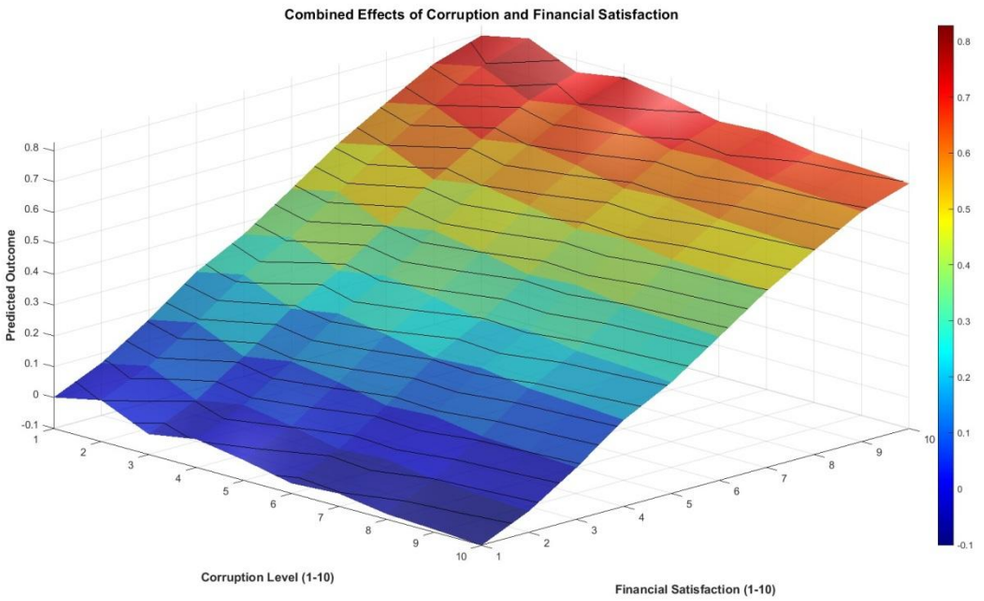

Figure 6: Combined Effect

The younger adult groups (2039) of the 1519 reference group have positive coefficients, which are statistically significant, as opposed to older groups, with older groups, especially older ones (50 and above), having increasingly negative coefficients with significant values. There are no changes in gender differences: female respondents report lower values of the dependent variable than male respondents ($\beta = 0.065, p < 0.001$). There is also a positive relationship between income level and the outcome, with middle-income respondents ($\beta = 0.124, p < 0.001$) and higher-income respondents ($\beta = 0.179, p < 0.001$) reporting higher scores than lower-income respondents. The country dummy coefficients in the right panel of the table reflect the country-specific differences in intercepts, with the omitted country as the reference. Most of these coefficients are statistically significant, indicating that the baseline standard deviation of the dependent variable across countries is high despite the inclusion of individual-level predictors.

The fixed-effects model accounts for a moderate amount of the variance in the dependent variable ($R^2 = 0.157$; adjusted $R^2 = 0.156$), indicating that the model predictors explain around 16 percent of the outcome variance. The close relationship between R^2 and adjusted R^2 indicates that the model is not over-fitting, even though a large number of the country dummy variables have been included. The adjusted R^2 is particularly useful in models with many predictors, since it accounts for the cost of model complexity. Root mean squared error (Root MSE $= 0.802$) is the standard deviation of the residuals and thus measures the average prediction error of the model in units of the dependent variable.

4.1. Study Discussion

This analysis provided cross-national data on subjective health, along with institutional and socioeconomic factors, based on the World Values Survey (2017-2022). Both multilevel and country fixed-effects model results consistently indicate that perceptions of economic security and quality of governance have a strong positive relationship with the self-rated health, hence

confirming expectations that are both generated by the social determinants of health framework and the institutional theory (Marmot, 2005; Solar and Irwin, 2010; Beckfield et al., 2013). The study found that perceived corruption is negatively correlated with subjective health, with stronger relations at higher levels of the corruption variable, and that fixed-effects specifications showed stronger relations. This finding is in line with the previous empirical studies that define corruption as a negative influence in the provision of government services and effectiveness of institutions in their operations (Gupta et al., 2000; Vian, 2008). It is related to a negative correlation with both well-being and life satisfaction as well (Welsch, 2008; Holmberg and Rothstein, 2011; Sulemana et al., 2017). The statistics also highlight the key importance of the quality of governance and institutional trust as the context-sensitive determinants of health (Rothstein and Uslaner, 2005; Beckfield et al., 2013). Out of the set of analytic models that are taken into consideration, financial satisfaction is the strongest predictor that has a positive gradient relationship with subjective health. Moreover, health outcomes are positively correlated with the level of income. These findings support the importance of socioeconomic resources in determining health, which has been substantially discussed in the literature on social determinants of health (Marmot, 2005; Solar and Irwin, 2010) and is supported by cross-national studies of health disparities (Präg et al., 2016). On the other hand, preference towards income inequality exhibits rather weak and heterogeneous effects, and, therefore, it is the material conditions that have a direct impact on health, as opposed to attitudinal beliefs about redistribution.

5. Conclusion and Policy Recommendations

This study provides consistent findings that socioeconomic and institutional perceptions are crucial at determining self-rated health in different countries. Financial satisfaction is the strongest and most consistent predictor with definite positive gradient with subjective health. The level of income is also positively related to the health outcomes, and it, therefore, highlights the importance of material resources. Perceived corruption is found to be linked with poor self-rated health, especially at high levels, which underscores the significance of the quality of governance and institutional trust. Attitudes to income inequality have a weak and irregular impact. There is a life time cycle pattern of health where older people have lower levels compared to younger ones and women are lower self-reported health compared to men. The findings are supported by the consistency of the results obtained not only in the multilevel but also in the fixed-effects models. Policymaking on the policy level can increase household economic security and bring about better health perceptions through steps like income support and social protection. It is possible to reinforce the institutional trust through enhancing transparency and accountability in state institutions, particularly in the field of healthcare, thereby enhancing subjective health outcomes.

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