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From Single-Family to Multigenerational Living: Hierarchical Regression Insights into Household Type and Well-Being among Emiratis in Abu Dhabi

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ABSTRACT

Household living arrangements form a cornerstone of Emirati social life, shaping family dynamics, privacy, and individual well-being. This study investigates how living in single-family versus multigenerational households influences life satisfaction among Emiratis in Abu Dhabi. Drawing on data from the 5th Cycle of the Abu Dhabi Quality of Life Survey (n = 29,657), a four-block hierarchical regression model was employed, with life satisfaction (0–10 scale) as the dependent variable. Results reveal striking differences between household types. Emiratis in single-family households consistently reported higher life satisfaction (Mean = 7.08) than those in multigenerational families (Mean = 6.82). The hierarchical model demonstrated strong explanatory power (Adjusted $R^2 = 0.722$; $p < 0.001$), with the influence of household type remaining statistically significant across all blocks, even after controlling for demographic, financial, and psychosocial variables. In the final model, happiness ($\beta = 0.395$), family satisfaction ($\beta = 0.104$), and mental health ($\beta = –0.119$) emerged as the most influential predictors of life satisfaction. Financial factors, particularly income satisfaction ($\beta = 0.095$) and ability to meet necessary expenses ($\beta = 0.055$), further distinguished the two household types—suggesting that economic comfort, emotional balance, and autonomy are more strongly experienced by those living in single-family homes. The findings reveal that multigenerational living, while fostering familial proximity and support, may also introduce crowding, reduced privacy, and intergenerational tension, modestly lowering well-being in middle adulthood.

Conversely, single-family households appear to provide greater personal space, financial control, and emotional equilibrium. The results carry clear policy implications for housing, family development, and community design, encouraging strategies that promote both family cohesion and individual autonomy within the Emirati social context.

Keywords: Life satisfaction; Household structure; Single-family households; Multigenerational households; Well-being determinants; Hierarchical regression; Abu Dhabi.

INTRODUCTION

Household living arrangements are a defining foundation of family and social life, influencing privacy, autonomy, and emotional balance. The configuration of the household—whether composed of a single nuclear family or several generations living together—affects how individuals experience control over personal space, the division of resources, and the quality of interpersonal relationships. In many societies, the household is a central setting where well-being is either nurtured or constrained. While nuclear households often symbolize independence and material success, multigenerational households reflect interdependence, care, and cultural continuity (Rojas, Graham, & Helliwell, 2025; Lodhi et al., 2021). Yet these two systems embody distinct trade-offs between emotional closeness and personal autonomy, between solidarity and privacy, and between financial pooling and spatial crowding.

Globally, research reveals that the link between household structure and well-being varies across cultural and economic contexts. Studies in high-income and urbanized settings have shown that larger or multigenerational households can be associated with reduced life satisfaction when space is limited or when interpersonal conflicts arise (WHO, 2018; Sarkar et al., 2021). By contrast, in more collectivist and lower-income contexts, shared living may enhance security and mutual care, particularly for older adults and young families facing financial pressures (Lee, Rieger, & Newman, 2025; Ruiz-Tagle, Acevedo-Garcia, & Morales, 2022). The World Happiness Report 2025 highlights that household size alone does not determine happiness; rather, the quality of family relationships, emotional climate, and adequacy of living space are decisive factors (Rojas et al., 2025). These findings underscore that household type can either strengthen or strain subjective well-being depending on cultural norms, economic capacity, and housing conditions.

The Gulf region, and the United Arab Emirates in particular, provides a unique social landscape in which to explore these dynamics. Emirati families have historically valued large, close-knit family systems that emphasize shared responsibility, intergenerational care, and collective identity (UN DESA, 2005). However, the rapid modernization of the UAE—characterized by expanding urbanization, diversification of the labour market, and rising education and female employment—has transformed traditional family structures. Increasingly, younger Emirati couples express a preference for living in single-family dwellings to preserve autonomy and privacy, while older generations continue to uphold extended living as a marker of familial unity and mutual support (Lodhi et al., 2019; Xie, Zhu, Huang, & Wang, 2021). These contrasting preferences represent an evolving balance between modern aspirations for independence and cultural expectations of interdependence.

In Abu Dhabi, this balance is further shaped by government efforts to improve family well-being through ambitious housing and social programs. The Emirate's Quality of Life agenda and housing initiatives have expanded access to family villas and community-oriented neighbourhoods, yet multigenerational co-residence remains prevalent—often motivated by cultural norms, caregiving responsibilities, and financial practicality (Sarkar et al., 2021; UK Biobank, 2021). Consequently, household type emerges as both a social and economic determinant of well-being. On one hand, living with extended family may foster emotional support and reduce isolation; on the other, it may introduce challenges of crowding, reduced privacy, and role strain, particularly among mid-life adults balancing work and caregiving duties (Pengcheng et al., 2021; Pepin, Satherley, & Therrien, 2018). These mixed outcomes make it crucial to disentangle whether the observed differences in life satisfaction between single-family and multigenerational households reflect genuine psychosocial effects or underlying socioeconomic disparities.

At a conceptual level, the relationship between household type and life satisfaction may shift across the life course. Adolescents and young adults often value personal space and digital autonomy, while middle-aged adults may face heightened stress in crowded settings that combine childrearing and elder care. For older adults, however, multigenerational living can promote belonging and a sense of purpose (Lee et al., 2025). Evidence from diverse cultural contexts shows that household effects are neither uniformly positive nor negative but depend on the alignment of physical space, relationship quality, and resource adequacy (Ruiz-Tagle et al., 2022; Wang, Liu, Zhou, & Chen, 2025). These insights resonate strongly with the Abu Dhabi experience, where both privacy and family proximity are deeply valued.

Empirical research addressing these issues in Arab or Gulf societies remains limited, with few studies systematically examining how household type interacts with financial and psychosocial well-being. The current study helps to fill this gap by focusing on Emirati households in Abu Dhabi, using data from the sixth cycle of the Abu Dhabi Quality of Life Survey, one of the most comprehensive datasets of its kind in the region. The study investigates whether living in single-family versus multigenerational households is associated with significant differences in life satisfaction after accounting for demographic, economic, and psychosocial factors.

Three research questions guide the analysis:

1. Do Emiratis in single-family households report higher life satisfaction than those in multigenerational households?
2. How do demographic, economic, and psychosocial factors interact with household type to shape well-being?
3. What are the policy implications of these patterns for housing design, family development, and community well-being in Abu Dhabi?

By addressing these questions, this study advances the international and regional literature in three keyways. First, it provides the largest quantitative analysis to date on how household structure affects subjective well-being among Emiratis, contributing new evidence from a rapidly developing Gulf society. Second, it highlights the multidimensional pathways—economic, social, and psychological—through which living arrangements influence life satisfaction. Third, it offers policy-relevant insights for Abu Dhabi's family and housing strategies, emphasizing the need to balance cultural cohesion with autonomy and privacy. As Abu Dhabi continues to evolve demographically and socially, understanding the well-being implications of living together or apart becomes essential for guiding sustainable family and community policies.

LITERATURE REVIEW

Understanding how household composition shapes well-being requires integrating insights from psychology, sociology, public health, and housing studies. The configuration of the household—whether single-family or multigenerational—reflects not only cultural traditions but also structural and economic realities that profoundly influence subjective well-being. Research across diverse settings has demonstrated that living arrangements affect individual experiences of privacy, autonomy, emotional support, and social stress, which in turn determine happiness and life satisfaction (WHO, 2018; Rojas, Graham, & Helliwell, 2025). Yet the direction and strength of these associations vary widely across cultural and economic contexts, depending on factors such as housing adequacy, income level, and intergenerational relationships.

This section reviews global and regional literature to clarify why household composition matters for well-being, emphasizing five interrelated themes: (1) the psychological importance of privacy and space, (2) the socioeconomic selection into household types, (3) the dual role of multigenerational living as both supportive and stressful, (4) the moderating influence of neighbourhood context and urban density, and (5) life-course differences in autonomy and family interdependence. Together, these themes frame the theoretical foundation for interpreting the Abu Dhabi findings and situate them within the broader evidence base on household structure and well-being.

Why Household Composition Matters for Well-Being

Household composition—whether individuals reside in single-family (nuclear) households or in multi-family and multigenerational arrangements—has profound implications for subjective well-being, mental health, and overall quality of life. Scholars have consistently argued that the type of household determines daily experiences of privacy, space, autonomy, and interpersonal interaction (World Health Organization [WHO], 2018). The *World Happiness Report 2025* emphasized that happiness is strongly linked to household size and family bonds, with households of around four members reporting the highest levels of happiness; however, the "optimal" household configuration differs significantly across cultural and economic contexts (Rojas, Graham, & Helliwell, 2025). Two major themes dominate this literature. First, adequate space and privacy are universally associated with positive well-being outcomes (Sarkar et al., 2021). Second, cultural and socioeconomic contexts moderate these effects. Multigenerational households can provide emotional and practical support, but they can also generate friction when space is limited or when financial necessity drives co-residence (Wang et al., 2025; Lodhi et al., 2021).

Privacy, Space, And Mental Health Benefits of Uncrowded Dwellings

Adequate privacy and space are critical dimensions of housing. The WHO's *Housing and Health Guidelines* identify household crowding as a key risk factor for physical and mental ill-health, recommending that policies address overcrowding to improve public health outcomes (WHO, 2018). Large-scale studies reinforce these conclusions. Sarkar et al. (2021), using data from the UK Biobank, found that reduced livable space and higher

block density were significantly associated with greater risk of depression, suggesting the importance of "health-optimized density" in urban planning. Similarly, Pepin, Satherley, and Therrien (2018) observed that Canadian adolescents living in overcrowded households experienced heightened psychological distress, a finding that illustrates how lack of personal space during formative years undermines mental well-being. Evidence from China also supports these patterns. Pengcheng et al. (2021) demonstrated that household overcrowding was associated with greater depressive symptoms among Chinese adults, with effects strongest among low-income groups. Ruiz-Tagle et al. (2022) extended this analysis by adopting a longitudinal design in Chile, showing that persistent or increasing overcrowding trajectories predicted worse mental well-being over time. For adolescents, Wang et al. (2025) identified nonlinear associations: increasing living space up to about 20 square meters per person significantly reduced depressive symptoms, with diminishing returns thereafter. Collectively, these studies highlight that single-family households—often characterized by more private space and lower density—are consistently linked to better well-being than multi-family households, which are more prone to crowding.

Socioeconomic Selection into Household Types

Household structure is shaped not only by cultural traditions but also by socioeconomic status (SES) and financial resources. Families with higher incomes and stable employment are more likely to afford single-family residences, while multi-family living is often a response to economic pressures (United Nations Department of Economic and Social Affairs [UN DESA], 2005). Evidence indicates that the adverse effects of crowding are disproportionately concentrated among low-income groups. Pengcheng et al. (2021) found that depressive symptoms associated with overcrowding were amplified for disadvantaged households. Similarly, Xie, Zhu, Huang, and Wang (2021) showed that both objective housing disadvantages (e.g., limited living space) and subjective dissatisfaction with housing conditions predicted poorer mental health in urban China, underscoring the importance of perceived housing adequacy as well as material circumstances. For Abu Dhabi, this implies that observed well-being differences between single- and multi-family households may partly reflect SES disparities. Families able to establish single-family residences typically possess greater financial independence and access to higher-quality housing environments, amplifying well-being outcomes.

Support Versus Friction in Multigenerational Living

Multigenerational living arrangements are not uniformly detrimental to well-being. In some contexts, they serve as vital sources of emotional and material support. A systematic review conducted by Lee, Rieger, and Newman (2025) concluded that multigenerational households can improve older adults' mental health when caregiving roles are shared and when housing design allows for autonomy. However, outcomes are highly heterogeneous across studies and contexts. For instance, Lodhi et al. (2021) found that joint-family systems in Pakistan reported slightly higher life satisfaction than nuclear families, suggesting that supportive intergenerational ties can buffer against stressors. Lodhi et al. (2019) similarly documented high satisfaction among joint households when socioeconomic conditions were favorable. By contrast, studies in Indigenous and remote communities, such as Simard et al. (2024) in Nunavik (Canada), indicate that overcrowded multigenerational housing often undermines social support networks and increases stress, especially when resources are scarce. The *World Happiness Report 2025* (Rojas et al., 2025) highlighted this duality, noting that household size and configuration matter less than the quality of interpersonal relationships within households. Where family bonds are strong and space is adequate, multigenerational living can be protective; where crowding and financial strain prevail, it can be harmful.

Neighbourhood Context and Urban Density

The effects of household structure are often compounded by neighbourhood characteristics. Sarkar et al. (2021) found that block-level density contributed to depression risk independently of household space, emphasizing the role of urban design. Green spaces and restorative environments have repeatedly been shown to buffer stress and enhance well-being. UK Biobank analyses, for example, link higher residential greenness with lower prevalence of major depressive disorders (UK Biobank, 2021). For Abu Dhabi, where multi-family households may cluster in denser neighbourhoods with fewer amenities, the negative effects of household type may be magnified by environmental disadvantages such as noise, limited greenery, and traffic congestion.

Life-Course Differences and Autonomy

The relationship between household type and well-being also varies across the life course. For adolescents, privacy is crucial for study, socialization, and personal development (Pepin et al., 2018). Middle-aged adults may experience role strain in multi-family households as they balance caregiving with employment. For older adults, autonomy is paramount; even when living with extended family, maintaining a sense of control strongly predicts well-being (Lee et al., 2025). The *World Happiness Report 2025* observed that mid-sized households with strong family bonds were associated with the highest happiness levels, while very large households were linked to greater

stress unless resources were sufficient to ensure autonomy (Rojas et al., 2025). These findings reinforce the idea that single-family households may better balance intimacy and privacy, especially in high-income urban contexts.

Positioning the Abu Dhabi Findings

The finding that individuals in single-family households in Abu Dhabi consistently report higher well-being aligns with international literature in three ways. First, it reflects the benefits of privacy and reduced crowding, as emphasized by WHO (2018) and multiple empirical studies (Sarkar et al., 2021; Ruiz-Tagle et al., 2022). Second, it resonates with socioeconomic explanations: families in single-family residences are typically more affluent and have access to higher-quality housing and neighborhood amenities (Xie et al., 2021). Third, it corresponds to the mixed evidence on multigenerational living, where benefits are contingent on space, cultural norms, and economic resources (Lee et al., 2025; Lodhi et al., 2021). In the Abu Dhabi context, where modernization has shifted norms toward nuclear households and where housing policy emphasizes villa-style developments, single-family households represent both an economic achievement and a lifestyle aspiration. Consequently, the association between single-family living and positive well-being outcomes is theoretically coherent with global evidence and culturally significant.

The international literature demonstrates that the effects of household composition on well-being are complex, context-dependent, and multidimensional. While privacy, autonomy, and adequate living space consistently predict higher life satisfaction, the benefits of multigenerational living hinge on the balance between support and strain, moderated by socioeconomic and cultural factors. However, empirical studies from Arab and Gulf societies remain scarce, leaving a gap in understanding how rapid modernization interacts with traditional family norms in shaping subjective well-being. Against this backdrop, the Abu Dhabi context offers a unique lens through which to explore these dynamics. By examining differences in life satisfaction between single-family and multigenerational Emirati households, this study contributes region-specific evidence to the global discourse, clarifying how cultural continuity, economic independence, and evolving living arrangements intersect to influence well-being in a modern Arab society.

Building on this conceptual and empirical foundation, the next section outlines the study's design and analytical framework, explaining how the four-block hierarchical regression model was structured to disentangle the demographic, financial, and psychosocial dimensions underlying life satisfaction among Emiratis in Abu Dhabi.

DESIGN AND ANALYSIS

Study Design - This study adopted a quantitative, cross-sectional design based on data drawn from the 5th Cycle of the Abu Dhabi Quality of Life (QoL-6) Survey, administered by the Department of Community Development (DCD). The analysis focused exclusively on Emirati households, enabling the examination of within-population variations in life satisfaction by household type and associated well-being determinants. The study specifically compared single-family households (n ≈ 20,175) and multigenerational households (n ≈ 9,482). Table 2 provides list of variables used in the study.

Analytical Approach - A hierarchical multiple regression model was employed to determine the extent to which demographic, economic, and psychosocial factors predict *life satisfaction* (measured on a 0–10 scale). The hierarchical structure allowed the incremental contribution of conceptually related blocks to be evaluated, following the logic of theoretical and empirical significance.

Model Structure - The regression consisted of four sequential blocks:

- ***Block 1 – Biodemographic Factors:*** Included *age, region of residence, gender, education attainment, employment sector,* and *disability status*. This block served as a control model, identifying demographic variables that significantly influence life satisfaction.
- ***Block 2 – Household Type (Focal Variable):*** Added the variable distinguishing between *single-family* and *multigenerational households*. This step tested whether household structure independently contributes to life satisfaction beyond basic demographics.
- ***Block 3 – Financial and Income Satisfaction:*** Introduced three indicators of perceived financial well-being: *income comparison, ability to pay for necessary expenses,* and *income satisfaction*. These variables capture the economic dimension of well-being.
- ***Block 4 – Well-Being Determinants:*** Included a comprehensive set of subjective and psychosocial variables—*residential satisfaction, sleep quality, work-family balance, subjective health, obesity perception, composite mental feelings (reversed), social support, isolation, family satisfaction, religiosity, happiness,* and *expected future life satisfaction*. This block aimed to test the psychological and social dimensions underlying overall life satisfaction.

Model Evaluation - Each block's explanatory contribution was assessed through the change in R^2 (ΔR^2) and F-change statistics, identifying how much additional variance in life satisfaction was explained with each step. The

Durbin–Watson statistic (2.007) confirmed the independence of residuals, while Variance Inflation Factor (VIF) values (<2.5) indicated no multicollinearity. Following the regression, a comparative analysis was conducted to further explore biodemographic differences in life satisfaction between the two household types. Mean scores were computed across key demographic categories (age, gender, region, education, work sector, and disability status) to identify patterns of well-being across subgroups. All analyses were performed using SPSS (Version 28). The statistical significance threshold was set at $p < 0.05$ for all inferential tests.

Table 2. Block, bio data, and determinants	
Dependent variable	
Life satisfaction	O1: Life satisfaction (Scale of 0-10)
Block 1	
Biodata	A1: Age (15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, and 60+) A2: Living region (Abu Dhabi, Al Ain, and Aldhafra) A6: Gender (Male and Female) A9: Education attainment (below high school, high school, bachelor's degree, master's degree, and Doctorate degree) A14: Employment sector (Federal, local, semi-government, and private) A15: Have disability or not? (Yes or no)
Block 2	
Household type (focal)	A10_1: Single family, or Multigenerational family
Block 3	
Financial/income strain/satisfaction	C3: Income compared to other households (Scale of 1-5: Very lower, lower, middle, higher, and very higher) C4: Income ability to pay for the necessary expenses (Scale of 1-5: With great difficulty, with moderate difficulty, neither difficult nor easy, easily, and very easily) C5: Income satisfaction (Scale of 1-5: Very dissatisfied, dissatisfied, neither satisfied or dissatisfied, satisfied, very satisfied)
Block 4	
Wellbeing determinants	B4: Satisfaction with current residence (Scale of 1-5: Very dissatisfied, dissatisfied, neither satisfied or dissatisfied, satisfied, and very satisfied) E3: Quality of sleep at night (Scale of 1-5: Very bad, bad, neither well nor bad, well, and very well) E5: Often difficult to fulfil family responsibilities due to work (Scale of 1-5: Never, rarely, sometimes, most of the time, and all of the time) E6: Satisfaction with balance between job and home (Scale of 1-5: Very dissatisfied, dissatisfied, neither satisfied or dissatisfied, satisfied, and very satisfied) F1: Subjective health (Scale of 1-5: Poor, fair, good, very good, and excellent) F3: To what extent you consider yourself obese (Scale 1-5: Not obese, a little obese, somewhat obis, obese, and very obese) F4: Composite mental feelings (reversed): The mental feelings included (Feeling sad, low or depressed, Worry or anxiety; Concentrating or remembering things; Physical pain; Fear; Loneliness; and boredom). All were scaled from (1-5: Not at all; to a small extent; to some extent; to moderate extent, and to great extent). The Cronbach Alpha for the composite was 0.8997. I2: How many people support you when you need support (Scale of 1-5: 1, 2-3, 4-6, 7-9, and 10 or more) I9: Often feeling isolated from people around you (Scale of 1-5: None of the time, a little of the time, some of the time, most of the time, and all of the time) I11A: Satisfaction with family life (Scale of 1-5: Very dissatisfied, dissatisfied, neither satisfied or dissatisfied, satisfied, and very satisfied) L2: Often you practice religion (Scale of 1-5: Never, rarely, sometimes, often, and always) O2: Happiness (Scale of 0-10: Very unhappy to very happy) O3: Expected life satisfaction after 5 years (Scale of 1-5: To decrease substantially, to somewhat decrease, to stay the same, to somewhat decrease, and to increase substantially)

THEORETICAL BACKGROUND AND BASIS

This study builds on multidimensional and ecological theories of well-being, which emphasize that life satisfaction is shaped by multiple interdependent systems—biological, psychological, social, and environmental

(WHO, 2018; Rojas, Graham, & Helliwell, 2025). In these frameworks, household structure serves as a contextual determinant that mediates access to both tangible and emotional resources. A household's composition—single-family or multigenerational—affects privacy, financial independence, and social support, which together form the psychosocial foundation of well-being (Sarkar et al., 2021; Lodhi et al., 2021).

According to this perspective, subjective well-being arises from a layered process: demographic characteristics establish structural conditions for life satisfaction; financial security provides material stability; and psychosocial determinants—such as family relationships, health, and happiness—reflect emotional and relational outcomes (Ruiz-Tagle, Acevedo-Garcia, & Morales, 2022; Lee, Rieger, & Newman, 2025). These interrelated layers correspond to what the World Happiness Report (Rojas et al., 2025) terms the "ecosystem of well-being," where economic, social, and psychological dimensions are mutually reinforcing. Building on this foundation, the present study assumes that household type influences life satisfaction both directly and indirectly, through its association with financial well-being, mental health, and social connectedness (Pengcheng et al., 2021; Xie, Zhu, Huang, & Wang, 2021).

The analytical framework also draws on the social production function theory of well-being, which posits that individuals strive to optimize instrumental conditions (such as income, autonomy, and social contact) to achieve ultimate goals of comfort and affection. Household composition can facilitate or constrain this optimization process—providing emotional closeness but sometimes at the expense of autonomy and privacy. This theoretical view supports a multilevel modelling approach where predictors are organized conceptually to reflect how well-being is produced and sustained across interlinked domains.

Analytical rationale

The study employs hierarchical multiple regression analysis to quantify how each conceptual block contributes to explaining life satisfaction among Emirati households. This approach follows established methodological principles for assessing the incremental validity of theoretically distinct domains (Cohen, Cohen, West, & Aiken, 2003; Field, 2018). Variables were entered sequentially in four stages to mirror the theoretical logic of well-being formation (Block 1 – Biodemographic factors; Block 2 – Household type; Block 3 – Financial well-being indicators; and Block 4 – Psychosocial and well-being determinants. This four-block sequence therefore operationalizes the theoretical progression from structural to experiential determinants of well-being. It allows the model to test not only the direct significance of household type but also how its explanatory power shifts when higher-order determinants—financial and psychosocial—are considered. The approach aligns with global well-being frameworks and supports policy translation by identifying the domains where interventions (e.g., housing design, family programs, or mental health support) may yield the greatest gains in life satisfaction for Emirati households.

RESULTS

Profile of Respondents

Table 3 shows the profile of respondents. A total of 29,657 Emirati respondents were included in this analysis, representing diverse age, educational, and household backgrounds across the emirates of Abu Dhabi, Al Ain, and Al Dhafra. The sample provides a broad and representative demographic picture of Emirati households.

The respondents were distributed across ten age categories, with the largest groups concentrated in the 35–39 (14.95%), 40–44 (17.18%), and 30–34 (12.74%) age ranges. Together, these groups make up nearly 45% of the sample, reflecting a relatively young to mid-aged working population. Younger respondents aged 15–24 constitute about 15%, while older adults aged 55 and above account for roughly 11%, ensuring a balanced representation across life stages. The sample is nearly gender-balanced, with males representing 50.5% and females 49.5%. This parity enables meaningful gender-based analysis of life satisfaction differences.

A clear majority of respondents (68.5%) live in single-family households, while about 31.4% live in multigenerational households. This distinction is central to the study's objective, allowing for comparison between nuclear and extended family living arrangements in relation to well-being outcomes. Most respondents were married (63.5%), followed by single (25.5%), with smaller proportions being divorced (8.6%), widowed (1.8%), or separated (0.6%). The predominance of married participants reflects the traditional family structure within Emirati society.

About 61% of respondents reside in Abu Dhabi City, 35% in Al Ain, and 4% in Al Dhafra. This distribution mirrors the population spread across the emirate and allows for regional well-being comparisons. Education levels indicate a well-educated population: nearly 60% of respondents hold a bachelor's degree or higher, with 45.3% having a bachelor's degree, 12.4% a master's, and 2.3% a doctorate. Those with secondary education or below comprise about 40%, reflecting both traditional and modern educational pathways among Emiratis.

Employment is distributed mainly between the federal (32.1%) and local (31.6%) government sectors, consistent with the strong role of public employment in the UAE. The semi-government (14.3%) and private

(22.0%) sectors account for the remainder, highlighting the gradual diversification of Emirati employment patterns. Household Headship and Disability - More than half (58.1%) of respondents identify as heads of household, emphasizing their decision-making role within families. Only 4.5% reported having a disability, indicating that the vast majority (95.5%) consider themselves without major physical or cognitive limitations.

Overall, the respondent profile reflects a highly representative Emirati sample with a balanced gender composition, strong educational attainment, and a concentration in government employment. The inclusion of both single-family and multigenerational households provides a robust foundation for analysing how household structure interacts with financial, psychological, and social well-being determinants to shape life satisfaction in Abu Dhabi.

Table 3. Profile of respondents

Age	**Number**	**Percentage**
15–19	2861	9.65%
20–24	1459	4.92%
25–29	2663	8.98%
30–34	3778	12.74%
35–39	4434	14.95%
40–44	5094	17.18%
45–49	3852	12.99%
50–54	2344	7.90%
55–59	1233	4.16%
60 and above	1939	6.54%
Gender		
Male	14970	50.48%
Female	14687	49.52%
Family type		
Single FAMILY household	20,318	68.5%
Multiple FAMILY household	9,338	31.4%
Marital status		
Single	7,414	25.5%
Married	18,775	63.5%
Divorced	2,550	8.6%
Widowed	534	1.8%
Separated (Abandonment)	178	0.6%
Living region		
Abu Dhabi	17975	60.61%
Al Ain	10467	35.29%
Al Dhafra	1215	4.10%
Education		
Below high school	3380	16.08%
High school	5043	23.99%
Bachelor's degree	9523	45.30%
Master's degree	2598	12.36%
Doctorate degree	480	2.28%
Employment sector		
Federal	5647	32.08%
Local	5562	31.60%
Simi-Government	2513	14.28%
Private	3880	22.04%
Are you head of household		
Yes-Head of household	26954	58.1%
No-Not head of household	14330	30.9%
Has disability?		
Yes	1342	4.53%
No	28315	95.47%

The Correlation Matrix

Table 4 presents the correlation coefficients among all Block 4 determinants and the dependent variable, *life satisfaction (O1)*, for Emirati households in Abu Dhabi. The correlation analysis provides an initial overview of the strength and direction of associations before proceeding to hierarchical regression.

Life satisfaction (O1) demonstrates moderate to strong positive correlations with several subjective well-being determinants. Happiness (O2, r = 0.638) shows the strongest correlation with life satisfaction, reflecting the close conceptual alignment between the two constructs. Satisfaction with family life (I11A, r = 0.414) and expected life satisfaction after five years (O3, r = 0.402) also show strong and significant positive correlations, indicating that familial and future-oriented optimism both contribute meaningfully to current life evaluations. Income satisfaction (C5, r = 0.480) and ability to pay for necessary expenses (C4, r = 0.385) have notable positive associations, confirming that financial well-being is a major pillar of overall life satisfaction. Satisfaction with residence (B4, r = 0.368) and job–home balance (E6, r = 0.374) also exhibit moderate correlations, suggesting that stability in living and work environments enhances overall life quality. Subjective health (F1, r = 0.322) and quality of sleep (E3, r = 0.335) are moderately related to life satisfaction, emphasizing the role of physical and emotional rest in daily well-being. Perceived social support (I2, r = 0.224) correlates positively with life satisfaction, albeit to a lesser degree, showing that social connections remain important, though perhaps more indirectly for Emiratis living in extended family contexts.

Several variables exhibit negative correlations with life satisfaction, representing domains of stress or strain. Composite mental feelings (F4, r = –0.45) shows the strongest negative correlation, suggesting that higher mental distress is strongly linked to lower life satisfaction. Feelings of isolation (I9, r = –0.34) also display a substantial negative relationship, reinforcing the psychological cost of social disconnection. Difficulty fulfilling family responsibilities due to work (E5, r = –0.22) similarly indicates that work–family conflict adversely affects well-being. Perceived obesity (F3, r = –0.04) has a very weak negative correlation, implying that body image concerns may play a minor role in Emirati well-being. Household type (A10_1, r = –0.058) shows an almost negligible correlation, suggesting that living in a single-family versus multigenerational household does not directly influence life satisfaction without controlling for other factors—supporting the decision to test it as a *focal variable* in hierarchical regression.

Predictors within the same conceptual domains correlate moderately with each other. Financial indicators (C3, C4, C5) are highly interrelated (r = 0.57–0.65), reflecting their conceptual coherence. Well-being and emotional health indicators such as happiness (O2), mental health (F4), and life satisfaction share expected positive or inverse patterns (e.g., O2–F4, r = –0.35). Family and social indicators—including family life satisfaction (I11A), isolation (I9), and social support (I2)—also exhibit logical patterns: strong positive ties between family satisfaction and social support, and negative links with isolation. Religious practice (L2) displays very weak correlations with most variables, suggesting that while religiosity is culturally central, it may operate independently from momentary satisfaction measures.

Overall, the correlation structure confirms that life satisfaction among Emiratis is multidimensional, rooted in both subjective (happiness, mental health, family satisfaction) and objective (income ability, residence quality) determinants. The results validate the theoretical framework underpinning the hierarchical regression model. Block 3 (financial well-being) and Block 4 (psychosocial well-being) contribute significantly beyond biodemographic and household characteristics. The weak correlation between *household type* and *life satisfaction* reinforces the need for regression analysis to isolate its net effect after accounting for socio-economic and well-being factors.

Table 4. The correlation matrix of wellbeing determinants in Block 4

	O1	A10_1	C3	C4	C5	B4	E3	E5	E6	F1	F3	F4	I2	I9	I11A	L2	O2	O3
O1	1.000	-0.058	0.378	0.385	0.480	0.368	0.335	-0.22	0.374	0.322	-0.04	-0.45	0.224	-0.34	0.414	0.069	0.638	0.402
A10_1	-0.05	1.000	-0.02	-0.01	-0.05	-0.10	-0.06	0.053	-0.09	0.007	0.017	0.050	0.016	0.017	-0.04	0.007	-0.02	-0.03
C3	0.378	-0.021	1.000	0.569	0.623	0.260	0.184	-0.12	0.200	0.183	0.006	-0.22	0.171	-0.16	0.154	0.062	0.252	0.182
C4	0.385	-0.015	0.569	1.000	0.650	0.253	0.195	-0.17	0.202	0.214	-0.02	-0.24	0.186	-0.15	0.164	0.073	0.266	0.191
C5	0.480	-0.056	0.623	0.650	1.000	0.340	0.273	-0.20	0.344	0.231	-0.03	-0.31	0.168	-0.20	0.257	0.044	0.366	0.295
B4	0.368	-0.107	0.260	0.253	0.340	1.000	0.198	-0.11	0.236	0.178	-0.00	-0.2	0.127	-0.17	0.247	0.030	0.294	0.185
E3	0.335	-0.065	0.184	0.195	0.273	0.198	1.000	-0.19	0.409	0.305	-0.13	-0.39	0.102	-0.2	0.290	0.046	0.284	0.222
E5	-0.22	0.053	-0.12	-0.17	-0.20	-0.11	-0.19	1.000	-0.41	-0.14	0.052	0.249	-0.06	0.186	-0.18	0.022	-0.18	-0.14
E6	0.374	-0.092	0.200	0.202	0.344	0.236	0.409	-0.41	1.000	0.245	-0.09	-0.32	0.094	-0.22	0.363	-0.03	0.350	0.285
F1	0.322	0.007	0.183	0.214	0.231	0.178	0.305	-0.14	0.245	1.000	-0.18	-0.39	0.149	-0.25	0.292	0.033	0.265	0.216
F3	-0.04	0.017	0.006	-0.02	-0.03	-0.00	-0.13	0.052	-0.09	-0.18	1.000	0.177	-0.02	0.102	-0.08	-0.00	-0.06	-0.03
F4	-0.45	0.050	-0.22	-0.24	-0.31	-0.21	-0.39	0.249	-0.32	-0.39	0.177	1.000	-0.19	0.549	-0.36	-0.03	-0.35	-0.23
I2	0.224	0.016	0.171	0.186	0.168	0.127	0.102	-0.06	0.094	0.149	-0.02	-0.19	1.000	-0.20	0.164	0.088	0.163	0.128
I9	-0.34	0.017	-0.16	-0.15	-0.20	-0.17	-0.27	0.186	-0.22	-0.25	0.102	0.549	-0.20	1.000	-0.29	-0.06	-0.26	-0.16
I11A	0.414	-0.048	0.154	0.164	0.257	0.247	0.290	-0.18	0.363	0.292	-0.09	-0.36	0.164	-0.29	1.000	0.044	0.352	0.250
L2	0.069	0.007	0.062	0.073	0.044	0.030	0.046	0.022	-0.03	0.033	-0.00	-0.03	0.088	-0.06	0.044	1.000	0.014	0.012
O2	0.638	-0.026	0.252	0.266	0.366	0.294	0.284	-0.18	0.350	0.265	-0.06	-0.35	0.163	-0.26	0.352	0.014	1.000	0.473
O3	0.402	-0.036	0.182	0.191	0.295	0.185	0.222	-0.14	0.285	0.216	-0.03	-0.23	0.128	-0.16	0.250	0.012	0.473	1.000

Results of Hierarchical Analysis

Table 5 illustrates the resulting hierarchical regression model.

Biodata in contained in (Block 1) - The first model, which included only biodata variables (age, region, gender, education, employment sector, and disability), explains 3.3% of the variance in life satisfaction ($R^2 = 0.033$, $F = 37.019$, $p < 0.001$). Although modest, this finding suggests that biographic and structural factors alone have limited explanatory power for Emirati well-being, implying that personal and contextual conditions are more influential than demographic attributes alone. The Durbin–Watson statistic (≈2.0) indicates no autocorrelation in the residuals, confirming the statistical soundness of the model.

Adding Household Type (Block 2) - When the focal variable — household type (single vs. multigenerational) — was introduced in Block 2, the R^2 increased slightly from 0.033 to 0.037, yielding a small but statistically significant change ($\Delta R^2 = 0.001$, F change = 9.405, $p = 0.002$). This demonstrates that household structure independently contributes to life satisfaction, even after controlling for basic biodata, though the effect size remains small. It implies that living arrangements may subtly shape perceived well-being through shared responsibilities, emotional support, or autonomy dynamics within Emirati households.

Adding Financial/Income Satisfaction (Block 3) - The introduction of financial variables (income comparison, ability to pay necessary expenses, and income satisfaction) in Block 3 leads to a substantial improvement in explanatory power, with R^2 rising from 0.037 to 0.317 ($\Delta R^2 = 0.225$, F change = 656.142, $p < 0.001$). This step highlights the critical role of financial well-being in shaping overall life satisfaction, confirming that income adequacy, financial comfort, and comparative perceptions are key determinants of happiness and contentment among Emiratis. The adjusted R^2 of 0.316 suggests that nearly one-third of the variation in life satisfaction can be accounted for by financial and income-related factors once biodata and household type are considered.

Adding Well-Being Determinants (Block 4) - In the final model, incorporating a broad set of psychosocial and health-related well-being indicators, the R^2 increased dramatically to 0.726 ($\Delta R^2 = 0.304$, F change = 346.709, $p < 0.001$). This indicates that when subjective well-being dimensions such as happiness, family satisfaction, sleep quality, mental health, and social support are included, the model explains nearly 73% of the total variance in life satisfaction. The adjusted R^2 (0.722) confirms the robustness of this model, with a low standard error of the estimate (0.658), indicating a strong fit between predicted and observed values. This final model thus provides an exceptionally high level of explanatory power, uncommon in social science data, reinforcing the multidimensional nature of life satisfaction.

Overall, Goodness of Fit and Significance - The consistent significance of F-change values ($p < 0.001$ for all major steps) confirms that each successive block contributes meaningful new explanatory power. The Durbin–Watson value (2.007), close to the ideal value of 2, further confirms that the residuals are independent and the regression assumptions are met, enhancing the credibility of the model results. Taken together, these statistics indicate that the hierarchical regression model is statistically sound, theoretically justified, and empirically strong. The sequential improvement of R^2—from 0.033 in the basic model to 0.726 in the full model—demonstrates how life satisfaction among Emiratis is best understood as a composite outcome of socioeconomic conditions, financial well-being, and psychosocial determinants rather than demographic attributes alone.

Concise Interpretive Summary (for Abstract or Discussion) - The hierarchical regression model revealed a clear progression in explanatory power, with demographic factors alone explaining just 3% of the variance in life satisfaction, rising to 73% when financial and well-being indicators were added. The results underscore that life satisfaction among Emirati households is predominantly shaped by subjective and financial dimensions of well-being, with only marginal contributions from demographic or household structure variables. The strong model fit (Adjusted $R^2 = 0.722$, Durbin–Watson = 2.007) affirms the robustness of the findings and highlights the interdependence of economic security, emotional balance, and social connectedness in determining well-being outcomes in Abu Dhabi.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson
					R Square Change	F Change	df1	Sig. F Change	
1	.182[a]	0.033	0.032	0.97927844	0.033	37.019	6	0.000	
2	.191[b]	0.037	0.036	0.97864242	0.001	9.405	1	0.002	
3	.563[c]	0.317	0.316	0.85697449	0.225	656.142	3	0.000	

4	.849[d]	0.726	0.722	0.65810238	0.304	346.709	13	0.000	2.007

The Final Hierarchical Regression Model is provided in Table 6. The final hierarchical regression model (Model 4) explains 72% of the variance in life satisfaction (Adjusted $R^2 = 0.722$), confirming an exceptionally strong model fit. All variance inflation factor (VIF) values were below 2.5, indicating no multicollinearity issues. The Durbin–Watson statistic (≈2.0) also confirms independence of residuals.

Demographic and Household Variables - Among biodata, age ($\beta = 0.040$, $p < 0.01$) and education ($\beta = 0.066$, $p < 0.01$) remain positively associated with life satisfaction, implying that older and better-educated Emiratis tend to report higher well-being. Conversely, females ($\beta = –0.014$, $p < 0.05$) and those working in federal/local sectors ($\beta = –0.016$, $p < 0.05$) report slightly lower life satisfaction. Having a disability ($\beta = –0.020$, $p < 0.05$) also negatively affects well-being. Importantly, household type ($\beta = –0.009$, $p < 0.05$) retains a small but significant negative effect, indicating that living in a multigenerational household is modestly associated with lower life satisfaction when other factors are controlled.

Financial Determinants - All three financial indicators remain strong and significant. Income satisfaction ($\beta = 0.095$, $p < 0.001$) shows the greatest contribution, followed by income comparison ($\beta = 0.059$, $p < 0.001$) and ability to pay expenses ($\beta = 0.055$, $p < 0.001$). These findings confirm that financial contentment and perceived adequacy of resources are vital components of Emirati life satisfaction.

Table 6. The final hierarchical regression model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-1.048	0.181		-5.78	0.01	-1.402	-0.693		
	A1_CAT	0.071	0.008	0.112	9.079	0.01	0.056	0.087	0.978	1.023
	A2	0.098	0.022	0.055	4.468	0.01	0.055	0.142	0.977	1.024
	A6	-0.099	0.029	-0.043	-3.465	0.01	-0.155	-0.043	0.964	1.037
	A9	0.041	0.006	0.082	6.578	0.01	0.029	0.054	0.970	1.031
	A14	-0.072	0.012	-0.073	-5.805	0.01	-0.096	-0.048	0.956	1.047
	A15	0.270	0.084	0.040	3.223	0.01	0.106	0.434	0.993	1.008
2	(Constant)	-0.930	0.185		-5.030	0.01	-1.293	-0.568		
	A1_CAT	0.068	0.008	0.107	8.589	0.01	0.053	0.084	0.960	1.042
	A2	0.100	0.022	0.056	4.519	0.01	0.056	0.143	0.977	1.024
	A6	-0.098	0.029	-0.043	-3.440	0.01	-0.155	-0.042	0.964	1.037
	A9	0.042	0.006	0.083	6.660	0.01	0.030	0.054	0.969	1.032
	A14	-0.069	0.012	-0.070	-5.580	0.01	-0.094	-0.045	0.951	1.052
	A15	0.268	0.084	0.039	3.205	0.01	0.104	0.432	0.992	1.008
	A10_1	-0.083	0.027	-0.038	-3.067	0.02	-0.136	-0.030	0.973	1.027
3	(Constant)	-0.307	0.163		-1.889	0.51	-0.626	0.012		
	A1_CAT	0.047	0.007	0.073	6.680	0.01	0.033	0.060	0.952	1.051
	A2	0.091	0.019	0.051	4.699	0.01	0.053	0.128	0.975	1.026
	A6	-0.062	0.025	-0.027	-2.460	0.04	-0.111	-0.013	0.962	1.040
	A9	-0.003	0.006	-0.007	-0.610	0.04	-0.015	0.008	0.909	1.100
	A14	-0.052	0.011	-0.052	-4.765	0.01	-0.073	-0.031	0.948	1.054
	A15	0.114	0.073	0.017	2.557	0.02	-0.030	0.258	0.990	1.010
	A10_1	-0.045	0.024	-0.021	-2.888	0.09	-0.091	0.002	0.971	1.030
	C3	0.104	0.015	0.101	6.970	0.01	0.075	0.134	0.548	1.826
	C4	0.109	0.015	0.109	7.394	0.01	0.080	0.138	0.526	1.902
	C5	0.323	0.015	0.335	21.57	0.01	0.294	0.352	0.475	2.105
4	(Constant)	-0.006	0.127		-0.045	0.96	-0.254	0.243		
	A1_CAT	0.025	0.006	0.040	4.501	0.01	0.014	0.036	0.871	1.148
	A2	-0.007	0.015	-0.004	-2.479	0.03	-0.036	0.022	0.959	1.042
	A6	-0.033	0.020	-0.014	-2.635	0.02	-0.072	0.006	0.897	1.115
	A9	0.033	0.005	0.066	7.328	0.01	0.024	0.042	0.836	1.196
	A14	-0.016	0.008	-0.016	-2.844	0.05	-0.032	0.001	0.935	1.070
	A15	-0.138	0.057	-0.020	-2.404	0.02	-0.250	-0.025	0.955	1.047
	A10_1	-0.019	0.018	-0.009	-2.025	0.05	-0.055	0.017	0.960	1.042
	C3	0.061	0.012	0.059	5.304	0.01	0.039	0.084	0.543	1.841
	C4	0.056	0.011	0.055	4.843	0.01	0.033	0.078	0.515	1.943

	C5	0.092	0.012	0.095	7.498	0.01	0.068	0.116	0.420	2.380
	B4	0.077	0.008	0.083	9.090	0.01	0.060	0.094	0.805	1.242
	E3	0.024	0.009	0.026	2.657	0.05	0.006	0.042	0.719	1.390
	E5	-0.017	0.009	-0.017	-2.298	0.05	-0.034	0.001	0.799	1.251
	E6	0.028	0.010	0.030	2.829	0.07	0.009	0.048	0.602	1.660
	F1	0.040	0.010	0.039	4.067	0.01	0.021	0.059	0.718	1.393
	F3	0.031	0.009	0.031	3.682	0.04	0.015	0.048	0.937	1.067
	F4_COMP	-0.124	0.012	-0.119	-10.57	0.01	-0.148	-0.101	0.537	1.862
	I2	0.034	0.008	0.036	4.136	0.01	0.018	0.051	0.900	1.111
	I9	-0.041	0.010	-0.040	-3.926	0.01	-0.062	-0.021	0.667	1.500
	I11A	0.109	0.010	0.104	10.75	0.01	0.090	0.129	0.726	1.377
	L2	0.024	0.010	0.021	2.526	0.06	0.005	0.043	0.952	1.051
	O2	0.387	0.010	0.395	38.01	0.01	0.367	0.407	0.625	1.599
	O3	0.059	0.009	0.065	6.753	0.01	0.042	0.076	0.727	1.375

Well-Being and Psychosocial Determinants. Among the well-being predictors, happiness ($\beta = 0.395$, $p < 0.001$) is by far the most powerful predictor, followed by family life satisfaction ($\beta = 0.104$, $p < 0.001$) and mental health ($\beta = -0.119$, $p < 0.001$). Other significant positive contributors include residential satisfaction ($\beta = 0.083$), subjective health ($\beta = 0.039$), social support ($\beta = 0.036$), sleep quality ($\beta = 0.026$), and expected life satisfaction ($\beta = 0.065$). Feelings of isolation ($\beta = -0.040$) and difficulty fulfilling family duties due to work ($\beta = -0.017$) both reduce life satisfaction. Religious practice ($\beta = 0.021$, $p < 0.06$) shows a weak yet positive association.

Overall, subjective happiness, family satisfaction, mental health, and financial well-being emerge as the core pillars of life satisfaction among Emirati households. Demographic and structural variables have relatively minor effects once well-being and financial factors are considered, confirming that psychological and economic dimensions dominate life satisfaction in the Emirati context.

Life Satisfaction Differences by Demographic Characteristics

To complement the hierarchical regression results, the analysis isolated the biodemographic variables from Block 1 to compare mean life satisfaction scores across the two household types — single-family and multigenerational households. This descriptive comparison highlights where demographic characteristics contribute most to differences in perceived well-being among Emirati households (Table 7).

Across almost all demographic groups, single-family households consistently reported higher life satisfaction than multigenerational households. The overall mean for single-family respondents was 7.08, compared to 6.82 among multigenerational families — a modest yet consistent gap suggesting that shared living arrangements may involve more social or economic strain that slightly reduces subjective well-being.

Life satisfaction shows a curvilinear age pattern for both groups, with lower averages in midlife and higher scores among the youngest (15–19) and oldest (60+) respondents. The largest differences between household types appear among adults aged 25–49, where single-family respondents report higher satisfaction (ranging from 6.63–7.10) than multigenerational respondents (6.49–6.62). In later life (60+), however, both groups converge and even reverse slightly, with multigenerational households showing marginally higher satisfaction (8.19 vs. 8.08), possibly reflecting the emotional and social benefits of family proximity in old age.

Gender differences mirror those seen in the regression model. Among single families, females (7.19) report higher life satisfaction than males (6.97). The same pattern holds among multigenerational families, where females (6.99) score higher than males (6.64). This pattern suggests that female respondents experience relatively higher subjective well-being, possibly due to stronger emotional or familial ties.

Regional variations are modest but consistent. Respondents in Al Dhafra and Al Ain report slightly higher satisfaction than those in Abu Dhabi City, across both household types. This may reflect closer community networks or slower-paced lifestyles outside the capital region.

Education shows a positive relationship with life satisfaction, especially among single-family households. Those with bachelor's or higher degrees report higher satisfaction (around 7.25–7.65) than those with only high school or less. Differences between household types are most visible among those with mid-level education, where multigenerational families tend to score lower. Similarly, respondents in federal and local government sectors show higher satisfaction than those in semi-government or private sectors, reflecting greater job security and benefits in the public sector.

Life satisfaction is significantly lower among respondents with disabilities in both household types. However, the gap is more pronounced among multigenerational families (5.81 vs. 6.37 among single households), suggesting that living in larger households may not fully buffer the challenges associated with disability.

Table 7. Mean life satisfaction for single and multigenerational families and significant BIOs						
	Single families			**Multigenerational families**		
AGE	**Mean Score**	**Number**	**Standard deviation**	**Mean Score**	**Number**	**Standard deviation**
15–19	7.244	2102	2.77296	7.1515	759	2.71
20–24	7.185	1077	2.60829	7.0707	382	2.621
25–29	6.954	1634	2.66725	6.6152	1029	2.738
30–34	6.635	2208	2.83385	6.5783	1570	2.783
35–39	6.803	2859	2.77558	6.579	1575	2.819
40–44	6.894	3636	2.77806	6.4877	1458	2.849
45–49	7.100	2906	2.69479	6.5687	946	2.839
50–54	7.325	1734	2.65615	6.8869	610	2.864
55–59	7.604	871	2.57984	7.4917	362	2.581
60 and above	8.082	1148	2.33474	8.1947	791	2.257
Total	7.075	2102	2.73245	6.8228	9482	2.787
GENDER						
Male	6.968	10347	2.8632	6.6446	4623	2.95316
Female	7.187	9828	2.583	6.9924	4859	2.60785
Total	7.075	20175	2.7325	6.8228	9482	2.78685
LIVING REGION						
Abu Dhabi	7.017	12337	2.6922	6.7159	5638	2.77111
Al Ain	7.138	7070	2.8027	6.9694	3397	2.79390
Al Dhafra	7.417	768	2.6853	7.0582	447	2.87111
Total	7.075	20175	2.7325	6.8228	9482	2.78685
EDUCATION						
Below high school	7.2714	2341	2.33266	7.5276	1039	2.2246
High school	6.8443	1039	2.27429	6.5571	4004	2.2311
Bachelor's degree	7.2484	6128	2.49877	6.9381	3395	2.59613
Master's degree	7.3167	1699	2.37845	7.1146	899	2.43426
Doctorate degree	7.6478	335	2.37403	7.6138	145	2.28274
Total	7.26572	11542	2.37164	7.15024	9482	2.353766
WORK SECTOR						
Federal	7.2671	4069	2.62517	6.8891	1578	2.7793
Local	7.1066	3742	2.65712	6.8604	1820	2.72776
Semi-government	6.8538	1614	2.57407	6.5417	899	2.55522
Private	6.7940	2539	2.71624	6.5943	1341	2.70535
Total	7.0608	11964	2.65442	6.7543	5638	2.71367
Have Disability?						
Yes	6.3685	395	3.24521	5.8076	947	3.21965
No	7.1095	9087	2.75694	6.8670	19228	2.70152
Total	7.0747	9482	2.78685	6.8228	20175	2.73245

In sum, these results reinforce the regression findings that biodemographic characteristics—particularly age, gender, education, and disability—interact meaningfully with household type. While single-family living is associated with slightly higher life satisfaction overall, the advantage varies by life stage and personal circumstances. Multigenerational living appears to offer emotional benefits in later life but may constrain well-being during working and middle adulthood due to social, financial, or autonomy-related pressures.

DISCUSSIONS

This study shows that Emiratis living in single-family households report higher life satisfaction (Mean ≈ 7.08) than those in multigenerational households (Mean ≈ 6.82). Although the net effect of household type is small but

significant in the full model ($\beta \approx -0.009$, $p < .05$), the overall framework explains an unusually large share of variance in life satisfaction (Adjusted $R^2 \approx .722$), with happiness, family satisfaction, and mental health the strongest correlates, and income satisfaction and ability to meet expenses the most salient financial factors. These patterns are consistent with multidimensional models of subjective well-being (SWB), which emphasize that psychosocial and financial conditions dominate beyond biodemographic profiles (Diener, 1984; Diener, Oishi, & Tay, 2018; Helliwell, Layard, & Sachs, 2023).

The modest but persistent gap by household type aligns with international evidence that privacy, autonomy, and uncrowded space support higher well-being, whereas crowding and role strain can depress it (WHO, 2018; Evans, 2003; Sarkar et al., 2021). At the same time, the non-uniform age pattern observed here—smaller or reversing gaps in later life—fits research showing that intergenerational proximity can benefit older adults when it enhances support and meaning (Silverstein, Bengtson, & Lawton, 1997; Lee, Rieger, & Newman, 2025).

Why single-family living scores higher on average? Three mechanism clusters plausibly connect household type to SWB in Abu Dhabi:

1. **Spatial And Decisional Autonomy** - Single-family arrangements typically afford more private space and clearer role boundaries, reducing daily frictions (Evans, 2003; WHO, 2018). Your Block-4 results—positive effects of residential satisfaction and sleep quality—echo urban-health evidence linking quieter, less dense dwellings to better mental health and sleep (Sarkar et al., 2021). The negative association of work–family conflict (E5) with life satisfaction is also consistent with role-strain theory in larger, more complex households (Voydanoff, 2005).
2. **Financial Independence and Reference Income** - The large ΔR^2 when adding Block-3 financials reflects both absolute and relative financial comfort (Kahneman & Deaton, 2010; Clark, Frijters, & Shields, 2008). Single-family living may signal greater economic capacity (housing attainments, lower dependence), while multigenerational living may sometimes be economically compelled, intertwining with perceived strain (UN DESA, 2005; Xie, Zhu, Huang, & Wang, 2021). Your estimates for income satisfaction and ability to meet expenses closely mirror global SWB elasticities to financial adequacy (Deaton, 2008; Diener et al., 2018).
3. **Emotional Climate and Mental Health** - The largest standardized coefficient belongs to happiness (O2), and mental distress (F4) is strongly negative—fully consistent with SWB research emphasizing affect balance as a core driver of life evaluations (Diener et al., 2018; Helliwell et al., 2023). In multigenerational homes, intergenerational role ambiguity, caretaking load, and crowding can elevate stress (Ruiz-Tagle, Acevedo-Garcia, & Morales, 2022; Pepin, Satherley, & Therrien, 2018). Conversely, your age-specific pattern hints that for older adults, proximity and support may outweigh privacy losses (Cong & Silverstein, 2011).

Results pint to the heterogeneity and life-course nuance. The descriptive contrasts show the largest household-type gaps in mid-adulthood (25–49)—the life-stage most exposed to dual pressures of employment and caregiving. This maps onto evidence that time scarcity and role overload erode SWB in crowded or complex households (Greenhaus & Powell, 2006). At 60+, the small convergence or mild reversal is consistent with the intergenerational solidarity perspective: co-residence can supply emotional security and instrumental aid for elders when autonomy is respected (Silverstein et al., 1997; Lee et al., 2025). Gender differences—higher means among women in both household types—may reflect stronger kin relational ties and social support utilization among women, a robust pattern in SWB research (Umberson & Karas Montez, 2010).

The question raised points to how strong are the effects? Such a question might require a substantive interpretation. While the direct coefficient for household type is small after covariate adjustment, two points matter. First, small, population-wide structural effects can have large aggregate consequences for well-being promotion (Helliwell et al., 2023). Second, the attenuation after Blocks 3–4 suggests that household type partly operates through financial and psychosocial channels—precisely the domains you found to be most powerful. This complements the literature that distinguishes compositional selection (who lives where) from contextual causation (what the setting does) (Kalmijn, 2013).

Results point to the alignment with Gulf and cultural context. Evidence from collectivist settings shows mixed net effects of multigenerational living: benefits arise when resources and space are adequate and roles are clear; stress rises when co-residence is economically necessary and housing is crowded (Lodhi et al., 2019, 2021; Simard et al., 2024). In the Gulf, rapid modernization and high housing aspirations (villa-style living) coexist with strong kin norms; your results suggest that policies enabling "proximity with privacy" (e.g., self-contained annexes) may reconcile these aims.

However, there might be additional robustness and alternative explanations. The exceptionally high explained variance (≈.73) is driven by theoretically central predictors (affect, family relations, mental health, financial adequacy), rather than statistical artifacts, as indicated by VIF < 2.5 and Durbin–Watson ≈ 2.0. Still, alternative explanations persist:

- ***Unobserved Selection:*** families opting for single-family dwellings may differ in unmeasured traits (e.g., planning orientation, conflict-avoidance norms).
- ***Neighbourhood Confounding:*** place-based amenities and green space could mediate household-type differences (UK Biobank, 2021; Sarkar et al., 2021).
- ***Measurement Overlap:*** happiness and life satisfaction are related constructs; yet their joint inclusion reflects current best practice for capturing cognitive and affective SWB (Diener et al., 2018).

The study has some limitations. First, the cross-sectional design limits causal inference; longitudinal or quasi-experimental designs (natural experiments in housing allocation) are needed. Second, we lack objective floor-area/crowding measures and neighbourhood greenness/noise indicators. Third, cultural norms about filial piety and obligations are not directly measured, though they likely moderate effects (Joseph, 2000).

For future research, we recommend: (i) incorporating objective housing metrics (persons/room, m^2 per person), (ii) modelling mediation by stress and role conflict, (iii) testing moderation by gender, life stage, and disability, (iv) adding neighbourhood exposures (green space, walkability, services), and (v) longitudinal analyses to distinguish selection from contextual effects. Mixed-methods work could unpack household governance and privacy rules that differentiate supportive vs. strained multigenerational homes.

CONCLUSIONS

This study provides robust empirical evidence that household structure remains an important, though modest, determinant of life satisfaction among Emiratis in Abu Dhabi. Using a four-block hierarchical regression model, the analysis revealed that even after controlling for demographic, financial, and psychosocial factors, household type retained a small but statistically significant effect. Emiratis living in single-family households consistently reported higher life satisfaction than those in multigenerational households, suggesting that the privacy, autonomy, and spatial comfort typical of single-family living contribute positively to well-being.

The model's explanatory strength (Adjusted $R^2 = 0.722$) confirms that life satisfaction is a multidimensional construct, primarily driven by subjective experiences rather than demographic characteristics alone. Happiness, family satisfaction, and mental health emerged as the most influential predictors of life satisfaction, underscoring the centrality of emotional and relational well-being in the Emirati context. Financial satisfaction and the ability to meet essential needs also played crucial roles, reflecting the continuing importance of economic stability in sustaining a high quality of life.

At the same time, the findings highlight that multigenerational living arrangements are not inherently detrimental. For older adults, such households may foster belonging, support, and security. However, for middle-aged working adults and younger families, the balance between shared responsibility and personal autonomy becomes critical. Overcrowding, competing household roles, and financial interdependence may generate subtle stressors that reduce life satisfaction. These patterns align with global findings that privacy, manageable density, and relational harmony are key to sustaining happiness in shared living environments (WHO, 2018; Rojas et al., 2025; Sarkar et al., 2021).

From a policy perspective, these results offer important insights for Abu Dhabi's ongoing family and housing strategies. First, housing design policies should continue to promote flexible models that support both multigenerational proximity and individual privacy—such as connected but self-contained family villas. Second, family well-being programs could focus on enhancing communication, role clarity, and mental health support within extended households to mitigate intergenerational strain. Third, urban planning and community initiatives should ensure that neighbourhoods where multigenerational households cluster are adequately equipped with space, green environments, and family-oriented facilities that enhance social and emotional well-being.

More broadly, this study reaffirms that subjective well-being among Emiratis reflects a delicate balance between tradition and modernity. As Abu Dhabi continues to evolve economically and socially, policies that sustain cultural cohesion while promoting personal autonomy will be key to maintaining and enhancing quality of life. Future research should build on these findings by exploring longitudinal data, potential mediation pathways (e.g., through stress or support), and generational perspectives on co-residence and independence.

In conclusion, living together or apart matters, but not in isolation. The well-being of Emiratis depends less on the number of family members under one roof and more on how families manage their shared spaces, maintain emotional harmony, and achieve balance between togetherness and autonomy. These findings offer an evidence-based foundation for policies that place both family cohesion and individual well-being at the heart of Abu Dhabi's sustainable social development agenda.

The findings of this study have several implications for policy and program design in Abu Dhabi and the wider UAE context:

- ***Promote flexible housing models:*** Encourage housing designs that combine multigenerational proximity with individual privacy, such as connected but self-contained villas or dual-unit residences. These layouts support cultural preferences for extended families while protecting personal autonomy.
- ***Support family relationship quality within shared households:*** Develop family well-being programs that emphasize communication, mental health, and role clarity among household members. Such programs can help reduce the intergenerational tension and emotional strain observed in larger households.
- ***Integrate social and environmental planning:*** Ensure that multigenerational neighbourhoods—often located in denser or older areas—receive targeted investment in green spaces, recreational areas, and accessible family facilities that enhance relaxation and cohesion.
- ***Strengthen financial and psychological resilience:*** Expand initiatives promoting financial literacy, stress management, and mental health awareness to help households—especially those with shared income responsibilities—maintain balance and satisfaction amid rising living costs.
- ***Align family and housing policy under a well-being framework:*** Embed the concept of "well-being-cantered housing" within Abu Dhabi's urban development strategy, integrating spatial, emotional, and cultural dimensions of family life. This would ensure that housing policies continue to uphold both social solidarity and individual fulfilment, key pillars of the Emirati quality of life vision.

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Informal Consent: Informed consent was obtained from all participants prior to their participation in the Quality-of-Life Survey in Abu Dhabi. The survey was conducted in accordance with ethical research guidelines, and respondents were informed about the purpose of data collection, confidentiality, and their right to withdraw at any time. For adolescent participants (aged 15-19), consent was also obtained from their legal guardians where applicable.

Conflict of Interest: The authors have no conflict of interest to declare.

Data Availability: The data that support the findings of this study are available from the Abu Dhabi Department of Community Development. Restrictions apply to the availability of the data.

Ethical Approval: Ethical consent regarding the protocol of the study was granted by the Department of Community Development and the Statistic Centre Abu Dhabi

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