




What Makes People Happy with their Lives in Developing Countries? Evidence from Large-Scale Longitudinal Data on Ghana

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Abstract

A key objective of development thought is to improve the welfare of people and enhance their satisfaction with life. This is important following literature that suggests that increasing incomes may not necessarily lead to happiness in the long term. In this regard, this study investigates the drivers of happiness in Ghana and the determinants of transitions into different happiness states. Using a nationwide panel dataset over three time periods and employing econometric techniques, the study found that among the key determinants of happiness in Ghana are assets, social capital/networks, health status, ethnicity, age and location of residence. The study further found that assets neutralize the effects of other vital drivers while social network has a moderating effect on how assets predict happiness. In contrast, an inverted U-shape was found for the importance of assets to happiness over one's age, suggesting that assets begin to matter less for one's happiness beyond a certain age threshold. Aside from assets and social network, which predict transitions from any state of happiness to the other, the importance of other correlates of the transitions largely varies by the initial state of happiness. The implications are discussed within the framework of the goals of development policy.

Keywords Happiness · Happiness transitions · Determinants · Assets · Social network · Developing countries · Ghana

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Introduction

Conventional economic thought suggests that increasing Gross Domestic Product (GDP) should be the primary goal of any economy since this implies that, all things being equal, the population would enjoy more goods and services. In other words, economic growth should lead to better living standards, and ultimately make citizens happy. While this positive relationship sounds reasonable, and has been supported by some empirical studies (see Jaswal et al., 2020), there are compelling arguments suggesting that this may not always be the case. In particular, it has been argued that GDP and its growth are computed in a way that ignores non-marketized goods and services such as home production and tend to have many flaws when viewed as measures of welfare and happiness (see Abramovitz, 1959; Todaro & Smith, 2015). Todaro and Smith (2015) argued that economic growth ought to be accompanied by other changes that lead to rapid and large-scale improvement in living standards and welfare. This view aligns with Easterlin (1974), one of the early studies to delve into the relationship between income and happiness at the macro or national level, which led to what is now known as *Easterlin Paradox*.¹ This paradox suggests that while higher income at the national level (measured by GDP) may have a strong positive association with happiness in the short term, increases in income may not necessarily lead to increases in happiness in the long term. In other words, beyond a certain level of income, improving incomes may yield a temporal increase in happiness and may not necessarily lead to a perpetual increase in happiness (Kahneman & Krueger, 2006; Graham, 2005). These arguments laid the foundation for contemporary development thought, which suggests that the goal of development policy ought to be improving the welfare of people beyond what is implied by GDP and its growth, and hence, should lead to increased happiness. They also form the basis for the recent incursions into the question of ‘*what makes people happy?*’.

Easterlin’s paradox has been supported by several studies such as Frey and Stutzer (2002), Layard (2003) and Eren and Asici (2017). These studies point to the fact that beyond a certain income level where basic needs such as food and shelter are met, rising income levels no longer show a positive correlation with happiness. On the other hand, studies such as Deaton (2008) and Diener et al. (2013) show that higher levels of GDP lead to higher levels of happiness at both the aggregate (national) and individual levels. They however noted that the relationship was stronger for low-income countries than high-income countries. Also, the relationship can be context specific. On this, Hochman and Skopek (2013) observed that among three countries with different welfare systems- Germany (conservative), Israel (liberal), and Sweden (socio-democratic) - income and wealth explained a significant part of variations in subjective well-being when modelled together. Poor people had lower life satisfaction than the non-poor in Germany and Israel, with no significant effect of wealth on subjective well-being observed in Sweden. In Germany, however, the negative effect of income and wealth disappears after controlling for individual economic hardship

¹ For a comprehensive review of different definitions of happiness, see Veenhoven (2000).

– a measure of how difficult it was for the respondent to make ends meet – while remaining significant in Israel. These findings suggest that the kind of welfare system a country runs could moderate or influence the wealth-happiness nexus. These findings further imply that income or wealth alone does not necessarily translate into happiness.

Indeed, Veenhoven (1991) argues that increasing incomes or resources for everyone will not make everyone happier since individuals tend to care more about differentials in incomes and access to resources. Thus, happiness could depend on the gaps between an individual and others in their society regarding economic standing. People become happier if they close the gap between themselves and those ahead of them while becoming less comfortable if those beneath them close the gap, making the relevant issue here relativity rather than absoluteness regarding income and other resources. This concept of relativity also relates to an individual's previous and current state or between the same individual's current condition and their dream state (Sirgy, 1998). In other words, happiness could depend on the gap between an individual's present state and their previous state or where they want to be.

Several other important correlates of happiness have been studied. Ngamaba (2017), using subjective well-being to represent happiness and life satisfaction, relied on data from the World Value Survey from 59 countries and employed a multilevel random effects technique to identify the drivers of subjective well-being. The study found that health status, financial satisfaction, and freedom of choice were the main drivers of subjective well-being. Other drivers were leisure, attending religious gatherings, and income inequality. Similarly, using data from Australia, Ambrey and Fleming (2014) showed that income and physical health had significant positive effects on life satisfaction. A crucial insight from the study by Ambrey and Fleming (2014) is that physical health condition is an important determinant of happiness even after one controls for the effect of income on happiness. Relatedly, Clark et al. (2017) examined the determinants of satisfaction with life using survey data from the United States of America (USA), Australia, Britain, and Indonesia and found that the most crucial determinant of an adult's life satisfaction was the adult's emotional health while growing up. Other positive correlates of happiness identified in the literature include marriage (Oswald, 1997; Clark & Oswald, 2002; Alesina et al. 2004), education (Blanchflower and Oswald 2004; Powdthavee, 2007; Helliwell et al., 2012), gender and locality of residence (Nanor et al., 2021) and social capital or social network (Helliwell & Putnam, 2004; Leung et al., 2011; Bartolini & Sarra-cino, 2011; Majeed & Samreen, 2020). In a qualitative study using data from northern and central India, Singh et al. (2023) noted that among the factors that drive up people's happiness are family and friends, good health, professional success, recreation, and personal traits, emphasising the role of social networks or social interaction in making people happy.

Another strand of the happiness literature has to do with the effect that happiness potentially has on other variables. In other words, whether being happy matters for other things. For instance, Krause (2013) showed that happiness is positively associated with re-employment after being unemployed. The study observed that happiness predicts exit from unemployment into self-employment rather than into regular employment, with the effect seen among unemployed males only. Furthermore,

the study noted that personality traits explain the relationship between happiness and re-employment. Veenhoven (2008), in a study on the effect of happiness on health, observed that while happiness did not predict longevity among sick groups, it did among healthy groups. In other words, happiness is not a cure for illness but could prevent one from getting ill, with the observed effect among healthy groups as strong as the effect of smoking or the absence of it. Simply put, being happy is as essential to one's health as not smoking is. This finding is supported by Kushlev et al. (2020), who found evidence that improvements in subjective well-being resulted in improved health, evidenced by fewer sick days and more healthy days. These confirm that while contemporary development scientists see happiness as the goal, it also carries the potential for an enhanced level of living.

In summary, the previous studies do not only emphasize the importance of understanding happiness as a measure for welfare but they also offer important insights into other drivers/correlates of happiness aside from income. They also point to the fact that the relationship between happiness and the key drivers can be context-specific. Meanwhile, the majority of the existing studies on happiness tend to focus more on contexts other than developing countries (especially those in sub Saharan Africa (SSA), leaving a significant evidence gap for policy making and practice. In Ghana and in most SSA countries, it is hard to find any comprehensive empirical study on happiness and its determinants based on a nationally representative data. More importantly, the existing literature (such as Addai et al. (2014), Sulemana (2015) has not delved into the micro dynamics relating to changes in an individual's happiness status over time and the key drivers of this due to their heavy reliance on cross sectional data. The need to bridge these evidence gaps is further underscored by researchers who maintain that the happiness of individuals is actually the responsibility of their governments, who should take an active interest in their citizens' happiness and welfare (Musikanski et al., 2019). This argument suggests that despite happiness being mostly a subjective phenomenon and partly based on individual personalities (Lee, 2022), the government should take steps and actions to ensure that individuals are happy. To perform this function of government, there should be evidence of what makes people happy and what potentially drives changes in people's happiness status over time in specific contexts so governments can take the right policy actions. All of the above make it relevant to investigate and understand the drivers of happiness, especially within specific country contexts, to support country-specific policies. Therefore, this study answers the following key research questions: what makes people happy in Ghana and what drives transitions into different states of happiness over time in Ghana?

The current study seeks to address the above gaps in the literature and the specific objectives are – (1) to investigate the determinants of individuals' happiness in Ghana and (2) to examine drivers of transitions into different happiness states over time in Ghana. To do this, we take advantage of data from the first three and available waves of the Ghana Socioeconomic Panel Survey, covering about 5000 households and spanning a period of nearly 10 years between 2009 and 2018. We make the following specific contributions to the literature on the study of happiness and wellbeing in developing countries. First, we show that Ghanaians are on average becoming more and more happier over time while there is a higher probability for

individuals to exit an unhappy state than to exit a happy state. These findings align with other studies on welfare dynamics in SSA such as Atta-Ankomah and Osei (2021) and Amankwah et al. (2023) which respectively explored poverty transitions in Ghana and Tanzania.

Second, as noted above one thing missing from the existing happiness studies is an examination of movements into and out of happiness and unhappiness and what drives these movement. Our study significantly addresses this issue and shows the key determinants of happiness to be assets, social capital/networks, health status, ethnicity, age and locality of residence. Additionally, we show that the importance of these determinants are higher at lower levels of assets, tapering off at higher levels of assets. Thus, assets tend to neutralize the effects of other vital drivers of happiness. Similarly, both social network and age exhibit a moderating effect on other determinants. Interestingly, an inverted U-shape was found for the importance of assets to happiness over one's age, suggesting that assets begin to matter less for one's happiness beyond a certain age threshold. Additionally, assets and social network are further found to be the key drivers of transitions across happiness states over time while the importance of other determinants of the transitions in happiness states tend vary by the type of transition or the initial state of happiness. Generally, however, the factors which are positively associated with movement from unhappy to happy state are found to be negatively associated with movement from happy to unhappy state.

Third, the focus on Ghana provides unique insights into the determinants of happiness in a developing country context with specific characteristics. Ghana is a secular state and has been touted as a citadel of multi-party democracy and political stability in SSA, a credential which has been sustained in the last three decades. This period also saw a relatively high and stable economic growth in Ghana with poverty rate declining by more than half while achieving a lower middle income status. Understanding how welfare especially non-monetary measures such as happiness has evolved in this context as well as what drives this from a micro perspective is important. This study is probably the first attempt at empirically investigating happiness in Ghana using a large scale nationally representative micro panel data as well as investigating transitions in happiness states and its drivers.

The remaining sections of the paper are organized as follows: the next section explains the data and empirical methodology adopted for the analyses; followed by the section that presents the results and discusses them. The final section concludes the study and offers recommendations for policy consideration.

Methodology

Data

This study relies on data from the existing three waves of the Ghana Socioeconomic Panel Surveys (GSPS). The first wave of the GSPS was conducted in 2009/10 and covered about 5,000 households randomly selected through a two-stage probability sampling method to ensure representativeness at regional and national levels. The

second wave was conducted in 2013/14, while the third was conducted in 2018. The first two sets of the panel data were produced through a joint initiative of the Institute of Statistical, Social, and Economic Research (ISSER) and Yale University. The third set of the panel data was gathered through collaboration between ISSER and North Western University. This article makes use of the anonymized data obtained from ISSER; hence, the authors did not have any direct contact with the participants of the survey. The GSPS is a multi-purpose survey covering a wide range of socio-economic issues in Ghana and helps track welfare across households and over time. An interesting element of this survey is that in each of the three waves, the household heads were asked to indicate whether ‘they are happy with their life or not.’ This study takes advantage of this element of the data to explore the determinants of happiness with life (a subjective measure of welfare) in Ghana and what drives transitions out of being happy with life or being unhappy with life.

Conceptual Basis and Method of Analysis

We conceptualize that happiness (or otherwise) depends on individual and household level characteristics which potentially influence personal satisfaction with life overall. Rojas (2005) noted the heterogeneity of a conceptual-referent theory of happiness. That is, people differ in their conception of what happiness with life is and thus, people’s evaluation of their happiness with life is based on what they deem to be important to them for happiness. Nevertheless, adopting a particular referent for happiness is based on socioeconomic and demographic factors paving the way for a study on the determinants of happiness to be modelled on such socioeconomic and demographic factors. Wesarat et al. (2015), for instance conceptualized that, constructs including income, friendship, employment status and work activities determine one’s happiness while Jaswal et al. (2020) indicated that happiness has both biological and behavioural components. Biological factors such as suffering from an illness, for instance, displace happiness while anxiety, stress could impact on happiness adversely. The above factors broadly fall into one of at least two main components long conceptualized to constitute happiness- *hedonism*, i.e., pursuing pleasure over pain and *eudaimonism*, i.e., having a sense of a well-lived life (Kringelbach & Berridge, 2010).

On the basis of the foregoing, we model the socioeconomic determinants of being happy using a panel logistic framework, as specified by Eq. 1. y_{it} represents the dependent variable which is distributed Bernoulli (that is, a binomial variable), taking the value of 1 for an individual i who was happy with their life at time t . X_{it} is a set of independent variables or determinants of someone being happy with his life at time t .

$$\text{logit}\{E(y_{it})\} = X_{it}\beta, y \sim \text{Bernoulli} \quad (1)$$

The independent variables include socio-demographic characteristics of the individual and household, the self-reported health status of the individual, and socioeconomic characteristics of the individual and household (including per capita consumption expenditure, household assets, gender empowerment, the

social network of individual's household, etc.). Other important independent variables included in the analysis are the time the individual spends on unpaid housework and the individual's self-reported social standing. Table 1 provides details on how these potential determinants of being happy with one's life have been defined or measured using the GSPS data. Equation 1 is primarily estimated using the population average logit regression methods, but the results are also compared with those from logistic regression and random effects logit regression methods. We also present a heterogeneity analysis of the determinants of happiness by the poverty status and consumption quintiles.

The panel data also allows us to explore the potential determinants of transitions in happiness status over time, conditional on the initial happiness status of the individual. Here, we attempt to answer the question of what determines the probability that someone happy (unhappy) at time t would become unhappy (happy) at time $t + 1$ instead of remaining happy (unhappy) between time t and $t + 1$. The variables, labeled *trans_unhap12* and *trans_unhap23* in Table 1, respectively, measure the transitions in happiness status in 2010–2014 period for individuals who were unhappy at 2010, and 2014–2018 periods for those who were unhappy in 2014. Similarly, the variables labelled *trans_hap12* and *trans_hap23* in Table 1, respectively measure the transitions in happiness status in 2010–2014 period for individuals who were happy at 2010, and 2014–2018 periods for those who were happy in 2014. The variable labeled *tr_unhap_panel* pulls *trans_hap12* and *trans_hap23* into one variable with a panel identifier, while *tr_hap_panel* pulls *trans_unhap12* and *trans_unhap23* into one other variable with a panel identifier. We estimate the determinants of the period-specific transition variables using logistic regression while the determinants of *tr_unhap_panel* and *tr_hap_panel* are explored utilizing the population average logistic regression method. For all these transitions in happiness status, one-period lagged values of the time-varying independent variables are used instead of the end-period values. The advantage with this strategy is that it helps avoid reverse causality problem since the values of the time-varying independent variables are realised at time $t-1$ while the dependent variable is realised at time t . This approach follows a re-specification of Eq. 1 as:

$$\text{logit}\{E(y_{it})\} = X_{it-1}\beta, y \sim \text{Bernoulli} \tag{2}$$

Where y_{it} now represents a transition in happiness states over any two given periods and X_{it-1} is vector of independent variables with values realised at time $t-1$.

Additionally, we examine the determinants of being happy in a multinomial logit framework in which the dependent variable, labeled *happyw_123* in Table 1, takes a value of 1 for an individual who was happy in all three time periods, 2 being happy in any two time periods, 3 for being happy in any one time period, and 4 for unhappy in all three time periods. For time-varying independent variables, the values for the initial period (that is, 2009/10) are used in the analysis.

Table 1 variables and how they are defined or measured

Variable names	Definition/description of variable
Independent variables:	
happy	This has a value of 1 if happy with their life, but zero if unhappy.
trans_unhap12	It takes a value of 1 of unhappy at wave one but happy at wave two while it takes a value of zero if unhappy in both wave 1 and 2.
trans_unhap23	It takes a value of 1 of unhappy at wave two but happy at wave three while it takes a value of zero if unhappy in waves 2 and 3.
trans_hap12	This has a value of 1 if happy at wave one but unhappy at wave two while it takes a value of zero if happy in both wave 1 and 2.
trans_hap23	This has a value of 1 if happy at wave two but unhappy at wave three while it takes a value of zero if happy in waves 2 and 3.
tr_unhap_panel	This pulls trans_unhap12 and trans_unhap23 together as one variable over two-time periods.
tr_hap_panel	This pulls trans_hap12 and trans_hap23 together as one variable over two-time periods.
happyw_123	This has four categories; where 1 represents happy in all three waves, 2 is for happy in any two waves, 3 for happy in any one wave, and 4 for unhappy in all three waves.
Independent variables:	
rural	It equals 1 for rural communities but zero for urban communities.
female	It equals 1 for females but zero for males.
age	This is age in completed years.
age_square	This is derived by squaring the age in completed years.
education_any_level	This equals 1 for no education but zero for those with any level of education.
Christian	It takes a value of 1 for Christian but zero if otherwise.
akan	This equals 1 for Akan ethnic group but zero for other ethnic groups.
healthy	This takes a value of 1 for reporting to be very healthy; otherwise zero.
married_con	This takes a value of 1 for those who were not in a marital nor consensual relationship; otherwise, zero.
paid work	It equals 1 if the individual was in paid work; otherwise, zero.
farm	It equals 1 if primary economic activity is farming, otherwise zero.
nonfarm	This equals 1 if primary activity is in nonfarm, otherwise zero.
housework	This equals 1 if primary activity is unpaid housework, otherwise zero.
unemployed	This equals 1 if unemployed, otherwise zero.

Table 1 (continued)

Variable names	Definition/description of variable
not_labourmkt	It equals 1 if the individual was not in the labour market, otherwise zero.
hhsiz	it is the total number of persons that make up the respondent's household
hh_child_u5	It takes a value of 1 if the respondent's household has any child under 5 years, otherwise zero.
hh_over_60	It takes a value of 1 if the respondent's household has any person over 60 years old, otherwise zero.
female_power	An index derived from arithmetically adding responses under a set of 7 dichotomous variables on HH female members' perception of power relations with male members in the household.
asset_index	This is derived from principal component analysis of the ownership of household durable assets.
asset_square	This is derived by squaring the asset index.
adulteq_exp_real	This is monthly real adult equivalent consumption expenditure.
adulteq_square	This is derived by squaring the monthly real adult equivalent consumption expenditure.
SN_Total	It is an index capturing interactions between a household and other households in a community or an enumeration area*
ma_fe_ratio	This is the ratio of the number of male members of the household to the number of female members.
time_use_T	It is the amount of time (in hours per day) spent by an individual on unpaid housework activities.
time_square	This is derived by squaring the time used for housework.
laddercommunity_dummy	This is a measure of subjective well-being in relation to members of the respondent's community. Based on a ladder scale of 1–10, where 10 represents the highest social standing, the variable takes a value of 1 if the respondent places themselves on the top half of the scale but zero if in the bottom half of the scale.
ladderghana_dummy	This is a measure of subjective well-being in relation to the general population of Ghana. Based on a ladder scale of 1–10, where 10 represents the highest social standing, the variable takes a value of 1 if the respondent places themselves on the top half of the scale but zero if in the bottom half of the scale.

*The index for social networks was derived from seven variables which indicate the level of interaction between each household and the other households from the same community/EA. The seven questions relate to whether the household members spend more than an hour a week with the other fourteen households in their EA per week, the exchange of agricultural and business advice, and general assistance. Affirmative replies to each of the seven questions were given a value of 1 and zero if otherwise. The values were added together to create a score that varies from zero to 98

Results and Discussion

Descriptive Analysis

Table A1 in the Online Appendix presents descriptive statistics (mean and standard deviation) for all the variables used in the analysis by the three waves of the panel dataset. While the statistics on each of the variables in Table A1 are interesting, for brevity, this section focuses on the dependent variables, of which the key insights can be found in Fig. 1. The percentage of individuals who reported being happy

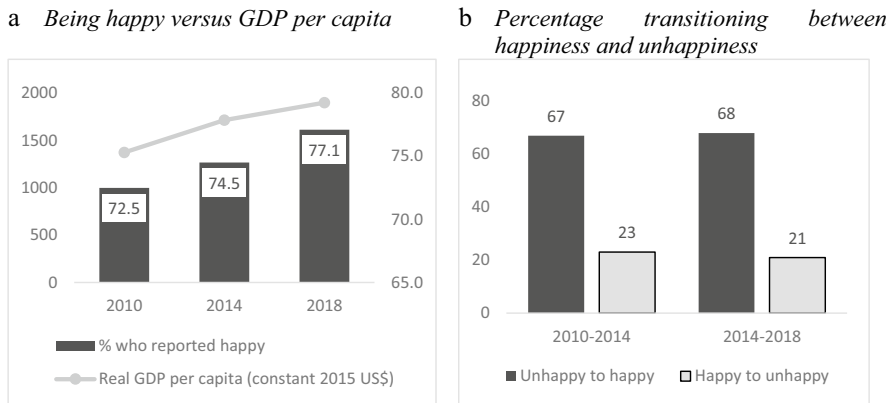


Fig. 1 Happiness with life and transitions over time. Source of data: real GDP per capita was taken from the online portal for the World Development Indicator; the information on happiness was computed from the GSPS dataset

with their lives increased in each successive survey, with about two to two and a half percentage points increase from one survey to the next (see Panel A of Fig. 1). Panel A of Fig. 1 further shows that the rise in the percentage of people who are happy with their lives is positively associated with an upward trending real per capita GDP for Ghana within the same period.

Panel *b* of Fig. 1 shows the extent of transitions between being happy and unhappy with one's life over time. The critical insight is that the probability of transitioning from unhappiness to happiness tends to be much higher than the probability for the reverse transitions to occur. This pattern generally remained the same in the two transitional periods. Indeed, there was a marginal increase in the percentage transitioning from unhappiness to happiness status in the 2014–2018 period, while there was a marginal fall in the percentage who experienced the reverse transition in the same period. This result is largely consistent with the rise in the proportion of individuals reporting happiness in the three survey periods, as shown in Panel *a* of Fig. 1.

In the following sub-section, we present the econometric results on the potential determinants of being happy with one's life as well as the transitions in individuals' happiness status over time in Ghana.

Determinants of Happiness

This section presents the results from the regression estimates and discusses them within the context of literature and the context of the Ghanaian society. Table ² displays the results from the population-averaged panel logit regression for the full sample (1), heterogeneous effects by poverty status (2)-(3), and heterogeneous effects by consumption quintiles (4)-(8). We find that health status, social network, locality of residence, and asset index are among the key predictors of happiness in Ghana. Being healthy has a strongly significant and positive relationship with self-reported happiness and is robust across all models. This finding confirms those of Clark et al. (2017), Ngamaba (2017) and Singh et al. (2023) who found that physical health positively predicts happiness. It also confirms a previous study on Ghana by Addai et al. (2014) that used cross sectional survey to show that health status positively predict happiness in Ghana. However, further results from this study (see Columns 2–9) show additionally that being healthy has a stronger positive association with happiness among the nonpoor than among people experiencing poverty. This is further confirmed when the data is disaggregated along consumption quintiles. Healthy individuals in higher consumption quintiles have greater likelihood of being happy than individuals in lower quintiles. Healthy people do not have to worry about the counterfactual situation of ill health, which comes with anxieties about getting better, financial costs of seeking treatment, and loss of work days. As a result, they are likely to report happiness. Furthermore, because the non-poor may be able to meet the minimum nutritional requirements as well as other non-food necessities needed for basic survival, the probability for them to be happy when healthy is higher compared to that of their poor counterparts who, despite being healthy, may not possess these necessities and hence have lower chances of being happy. However, the general implication of this result is that is that government policy should promote good health, or at least, ensure quality and timely healthcare in the event of illness to restore people to good health. This underscores the need to prioritize healthcare provision, including an efficient health insurance scheme, health facilities and equipment, and health personnel, to ensure good health for the people.

Next, we found a consistently strong positive relationship between household assets and happiness across all models and among all heterogenous groups, except very vulnerable groups in the lowest consumption quintile. In the general sample and heterogeneous poverty groups, the results suggest that accumulating more assets can increase happiness. This is consistent with earlier studies on happiness such as Powdthavee (2007), Hochman and Skopek (2013) and Jantsch et al. (2022), which examined the effect of wealth on subjective wellbeing. It also aligns with studies specifically examining the effect of assets on happiness (see: Jantsch & Veenhoven, 2022) and the recent study by Qiao and Cai (2023) which analysed the effect of financial assets on happiness in China. Given that assets tend to be closely correlated with income, our finding also aligns with those of Eren and Asici (2017), Ngamaba

² We conduct estimations using the logit and panel logit regression techniques. The results, which do not differ in essence from those here, are presented in Table A2 in the online appendix.

Table 2 Determinants of happiness with life – population averaged panel logit regression results

Independent variables	(1)		(2)		(3)		(5)					(7)					(8)					(9)				
	Full sample		Poverty status		Poverty		Consumption quintiles					Consumption quintiles					Consumption quintiles					Consumption quintiles				
			Nonpoor	Poor	Quint1	Quint2	Quint3	Quint4	Quint5	Quint1	Quint2	Quint3	Quint4	Quint5	Quint1	Quint2	Quint3	Quint4	Quint5	Quint1	Quint2	Quint3	Quint4	Quint5		
rural	-0.134** (0.059)	-0.207*** (0.064)	0.290** (0.132)	0.304** (0.148)	0.060 (0.122)	-0.158 (0.122)	-0.330*** (0.118)	-0.305** (0.127)																		
female	-0.197*** (0.066)	-0.201*** (0.074)	-0.161 (0.157)	-0.212 (0.174)	-0.314** (0.150)	-0.230 (0.144)	-0.178 (0.139)	-0.073 (0.146)																		
age	-0.022*** (0.009)	-0.021** (0.010)	-0.037** (0.017)	-0.029 (0.019)	-0.012 (0.018)	-0.014 (0.019)	-0.031 (0.020)	-0.053** (0.023)																		
age_square	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)																		
educated_any_level	-0.109* (0.061)	-0.076 (0.071)	-0.181 (0.113)	-0.145 (0.124)	-0.161 (0.121)	-0.101 (0.129)	-0.083 (0.145)	0.026 (0.164)																		
healthy	0.511*** (0.049)	0.541*** (0.057)	0.435*** (0.101)	0.427*** (0.111)	0.398*** (0.109)	0.467*** (0.109)	0.743*** (0.115)	0.611*** (0.118)																		
Christian	-0.028 (0.058)	-0.014 (0.068)	-0.066 (0.106)	-0.101 (0.115)	0.042 (0.119)	-0.008 (0.130)	-0.090 (0.132)	-0.009 (0.145)																		
akan	-0.177*** (0.051)	-0.188*** (0.056)	-0.084 (0.113)	-0.099 (0.125)	-0.284** (0.113)	-0.334*** (0.109)	0.048 (0.106)	-0.169 (0.111)																		
married_con	-0.183*** (0.060)	-0.163** (0.066)	-0.283* (0.146)	-0.202 (0.162)	-0.074 (0.138)	-0.031 (0.137)	-0.296** (0.130)	-0.281** (0.122)																		
farm	0.017 (0.072)	0.007 (0.080)	0.162 (0.171)	0.160 (0.197)	0.137 (0.159)	-0.126 (0.164)	-0.026 (0.153)	0.087 (0.163)																		
nonfarm	-0.019 (0.077)	-0.059 (0.082)	0.242 (0.213)	0.381 (0.247)	0.070 (0.181)	0.015 (0.176)	-0.048 (0.152)	-0.201 (0.140)																		
housework	-0.146 (0.102)	-0.152 (0.111)	0.020 (0.260)	-0.031 (0.286)	-0.224 (0.237)	0.021 (0.255)	-0.246 (0.215)	-0.051 (0.208)																		
unemployed	0.203 (0.133)	-0.105 (0.162)	0.758*** (0.262)	0.678** (0.290)	0.292 (0.295)	-0.145 (0.307)	-0.474 (0.335)	0.203 (0.349)																		

Table 2 (continued)

Independent variables	(1) Full sample	(2) Poverty status		(3) Consumption quintiles				
		Nonpoor	Poor					
				Quint1	Quint2	Quint3	Quint4	Quint5
not_labourmkt	-0.140* (0.082)	-0.191** (0.092)	0.106 (0.193)	0.073 (0.218)	-0.090 (0.188)	-0.259 (0.189)	-0.189 (0.179)	-0.152 (0.184)
hhszize	0.003 (0.013)	-0.001 (0.017)	0.011 (0.021)	0.026 (0.023)	-0.016 (0.027)	0.048 (0.033)	-0.045 (0.036)	-0.014 (0.038)
hh_child_u5	0.097 (0.062)	0.154** (0.074)	-0.087 (0.119)	-0.153 (0.132)	0.168 (0.129)	0.120 (0.138)	0.191 (0.151)	0.223 (0.172)
hh_over_60	0.174** (0.075)	0.236*** (0.090)	0.053 (0.135)	0.057 (0.148)	-0.073 (0.149)	0.348** (0.172)	0.288 (0.182)	0.392* (0.219)
female_power	0.292** (0.148)	0.265 (0.181)	0.365 (0.275)	0.424 (0.308)	0.215 (0.308)	0.573* (0.335)	0.172 (0.387)	0.121 (0.416)
asset_index	0.096*** (0.014)	0.098*** (0.015)	0.106** (0.054)	0.087 (0.058)	0.098** (0.044)	0.088** (0.040)	0.088*** (0.031)	0.120*** (0.025)
asset_square	-0.001*** (0.000)	-0.001*** (0.000)	0.010 (0.020)	0.028 (0.024)	0.025 (0.024)	0.001 (0.011)	-0.001** (0.000)	-0.001*** (0.000)
aduleq_exp_real	0.000 (0.000)	0.000 (0.001)	-0.025 (0.017)	-0.017 (0.020)	0.042 (0.032)	0.028 (0.025)	0.020 (0.015)	-0.001 (0.002)
aduleq_square	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
SN_Total	0.005*** (0.001)	0.006*** (0.002)	0.004* (0.002)	0.004* (0.002)	0.005** (0.002)	0.005 (0.003)	0.008** (0.003)	0.003 (0.004)
ma_fe_ratio	-0.045 (0.028)	-0.068** (0.033)	0.006 (0.048)	-0.024 (0.052)	-0.055 (0.055)	-0.011 (0.056)	-0.044 (0.066)	-0.135 (0.084)
time_use_T	0.007 (0.017)	0.010 (0.020)	-0.002 (0.036)	-0.012 (0.037)	0.017 (0.041)	0.020 (0.039)	0.027 (0.040)	-0.029 (0.038)
time_square	0.002 (0.000)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)	0.000 (0.000)	0.003 (0.003)	0.000 (0.000)	0.005 (0.005)

Table 2 (continued)

Independent variables	(1) Full sample	(2) Poverty status		(3) Poor	(4) Consumption quintiles				
		Nonpoor	Poor		Quint1	Quint2	Quint3	Quint4	Quint5
laddercommunity_dummy	(0.001) 0.148*** (0.050)	(0.002) 0.184*** (0.059)	(0.003) 0.049 (0.099)	(0.003) 0.180 (0.112)	(0.004) 0.084 (0.109)	(0.003) 0.180 (0.112)	(0.003) 0.228* (0.119)	(0.003) 0.193 (0.119)	
ladderghana_dummy	-0.003 (0.055)	0.033 (0.065)	-0.073 (0.107)	0.051 (0.127)	0.096 (0.119)	0.051 (0.127)	0.073 (0.135)	-0.089 (0.131)	
wave_2 (2013/14)	0.148*** (0.052)	0.084 (0.061)	0.398*** (0.115)	0.031 (0.156)	0.237 (0.152)	0.031 (0.156)	-0.070 (0.134)	0.171 (0.127)	
wave_3 (2018)	0.215*** (0.054)	0.215*** (0.063)	0.239** (0.118)	0.167 (0.136)	0.092 (0.139)	0.167 (0.136)	0.275*** (0.130)	0.483*** (0.140)	
Constant	1.317*** (0.297)	1.253*** (0.352)	2.416*** (0.855)	-1.887 (2.386)	-1.706 (2.142)	-1.887 (2.386)	-1.516 (2.157)	2.650*** (0.924)	
Observations	11,628	8,865	2,763	2,324	2,329	2,324	2,332	2,334	
Number of ppid	4,839	4,345	1,975	1,937	1,888	1,937	1,888	1,708	
chi2	444.8	379.1	126.4	120.6	85.53	120.6	142.8	131.7	
p	0	0	0	0	3.07e-07	0	0	0	

(1) Robust standard errors in parentheses; (2) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

(2017) and Ambrey and Fleming (2014) which examined the relationship between income and happiness. We find further that assets exhibit an inverted-U relationship with happiness but this pertains to only the nonpoor and the top consumption quintile. This provides evidence supporting the likely existence of the Easterlin Paradox in Ghana, similar to findings in Turkey (Eren & Asici, 2017). In addition to assets, we observed a strong positive relationship between social networks and happiness. Individuals from households with a strong social network or strong social interactions with other community members report being happy. This is consistent in both poverty groups and in the full sample. This agrees largely with previous findings in the literature (Singh et al., 2023; Clark et al., 2017). Social interactions help people deal with mental health issues such as anxiety and provide emotional support in tough times. This helps people overcome adverse circumstances that may occur, which could make them unhappy. Thus, the presence and support of friends and other community members make people in Ghana happy. A common phrase in daily conversations in Ghana is '*a problem shared is half solved*'. People are, therefore, grateful to have a listening ear whenever they need one, and through social interactions, they can have one.

Living in a rural community generally has a negative and significant relationship with being happy, which is also observed among the non-poor. However, among the poor, being a rural dweller has a positive and significant relationship with being happy. This could be because, compared to urban communities, poverty and low standard of living are much more pervasive in rural areas, and thus, poor rural dwellers do not differ too much from many other persons in their communities. Perhaps, sharing similar characteristics with many fellow community members helps them avoid the psychosocial stress associated with being poor. On the other hand, poor urban dwellers are more likely to report unhappiness, probably because they live among largely non-poor population whose living standards the urban poor may aspire to reach themselves. This feeling of other members of their community being better than them makes them unhappy (Veenhoven, 1991).

Other findings from our analysis show that factors such as female power relations, ethnicity, marital status, having household members over the age of 60, and one's position on the community ladder (a self-perceived social and economic standing compared to others in their community) influence people's happiness. People report happiness in households where females are empowered, while people who are married or in a consensual union are likely to report that they are happy compared to those with no marital or consensual relationship and this is in conformity with studies such as Eren and Asici (2017), Clark and Oswald (2002) and Alesina et al. (2004). Our result on marriage, however, contradicts a study by Addai et al. (2015) which found a negative association between marriage and happiness in Ghana using cross sectional data. We find further that our result on the likely effect of marriage or consensual relationship on happiness largely pertains to individuals in the top consumption quintile. Relative to other ethnic orientations, having an Akan ethnic background has a negative and significant relationship with being happy. That is to say, Akans are less happy compared to other ethnic groups. This is intriguing and may require further investigation, however, a likely explanation could be the type of customary practices of this ethnic group. The Akans predominantly practice a

matrilineal inheritance system. Thus, people inherit from their mother's families rather than their fathers. The implication is that a man does not pass on his wealth and resources to his children but rather to his sisters' children. This could breed discontent among parents (due to their strong affinity with their biological children) and children, who may feel hard dealt with by traditional or customary practices. The situation may be worse if the children of a man have very little or nothing to inherit because their maternal uncles are less endowed compared to their fathers. Furthermore, having household members over the age of 60 was found to have a positive relationship with happiness. Household members over 60 are likely retired and spend more time at home. Perhaps the companionship derived from such family members who do not have to be away for long working periods contributes to making people happy. The implication for life satisfaction is that a national system that cares for the aged members of the society; catering for their health, leisure and other socioeconomic needs is necessary as their presence within households has been found to be positively correlated with happiness. It is reasonable to expect that an adult of over 60 years in the household could put additional burden on the household and might make them unhappy due to the additional time and financial expenses that may be required to cater for the elderly. Indeed, our findings show that in non-poor households and in the highest wealth quintile households – where resources to cater for such people might not be a problem, the relationship is positive. Finally, it was observed that a high standing on the economic and social ladder compared to others in one's community positively affects happiness. That is to say, people are happy if they stand taller within the society than most other people in their community (Veenhoven, 1991).

Next, we present the marginal effects of the key determinants over different levels of assets, social networks and age. The results are shown in Figs. 2, 3 and 4. From Fig. 2, it is observed in the top left panel that being healthy and living in a rural area have a positive and negative association with happiness, respectively. However, at higher and higher levels of assets, the importance of these factors generally become muted. In other words, as people's assets increases, being healthy may not greatly affect their happiness. Even if they are sick, their wealth can afford them good healthcare and treatment, for which they will still be happy. Similarly, if people are wealthy enough (that is, have accumulated significant assets), living in a rural area may not affect their happiness. Again, the bottom left panel shows that an increasing asset level renders the factors of marriage or consensual union and having household members over age 60 less important to one's happiness. In other words, even if one is single, they will be happy if they have sufficient assets. A similar pattern is seen in the bottom right panel for age and social networks. They show that as asset levels increase, social networks' positive association with happiness diminishes. In the top right panel, it is observed that even though being female and being Akan are associated negatively with being happy, neither matters for happiness in the presence of increasing assets.

In effect, it can be concluded that high levels of assets tend to neutralize any effect of the key determinants of happiness in Ghana. In the presence of increasing assets, other determinants of happiness become less critical to the individual. This finding aligns with socioeconomic realities in a developing country like Ghana. Due to a

poor social welfare support system, having wealth is important for basic survival needs such as food, clothing, shelter, and healthcare. For example, even though there is a public health insurance program in Ghana, it has been observed not to have an effect on out-of-pocket health expenditures (Adjei-Mantey & Horioka, 2023). People still need to make significant out-of-pocket payments to meet health needs, and need greater wealth for this purpose. Similarly, no public housing program supports vulnerable groups, and therefore, without the resources to acquire or rent decent accommodation, people stand the risk of being homeless, especially when they find themselves away from family members. Thus, when one's assets increase, they are more likely to be relatively happy, other factors notwithstanding, as they can meet basic survival needs at least. This is largely equivalent to the Easterlin Paradox which suggests that income can explain happiness in the short term, and over time, increased income may not necessarily yield increases in happiness. The panels in Fig. 2 show that at extremely high levels of assets, all those factors begin to resume their initial effect on happiness. Of course, not many people attain incredibly high levels of income in their lifetime; therefore, for most people, one can expect the moderating role of increasing assets on the effect of the other determinants of happiness would hold.

In Fig. 3, we graph the marginal effects over different levels of social networks. It shows in the top left panel that as social networks increase, the negative association of living in a rural community with happiness reduces, and so does the positive association with being healthy. However, a key point of note is that social networks do not offset the effects to the extent observed for increasing assets. Thus, even though growing social networks reduces the relevance of being healthy and living in a rural community for happiness, it does not wipe it away completely. For instance, while having good interactions with other people in the community may be good, it may not be enough to secure one treatment in times of illness compared to what one's assets could offer, and therefore, in the presence of growing social networks, being healthy is still essential for happiness. Similarly, the bottom left panel shows that the negative association between not being married or in a consensual union and happiness tends to reduce when social networks increase. However, social networks do not neutralize that effect entirely. In other words, people may be less happy due to the loneliness of not being married nor in a consensual union, but having better social interactions within their communities assuages the lack of an intimate affair. In the same vein, increased levels of social networks reduce the positive association between having household members over 60 years and happiness but the relationship does not entirely disappear. The companionship these household members provide could be received from other members in the community with whom an individual interacts well. A similar result is observed in the case of assets (bottom right panel). The positive relationship with happiness is dampened when people experience increasing social networks but is not neutralized completely. As people build their social networks, wealth's effect on the probability of happiness tends to reduce but is still relevant to make people happy. Concerning the effect of age on happiness, however, there is no moderating role of increasing social networks. The top right panel shows that increasing social networks reduces the negative effect of being female or Akan on happiness but does not eliminate the importance of these factors.

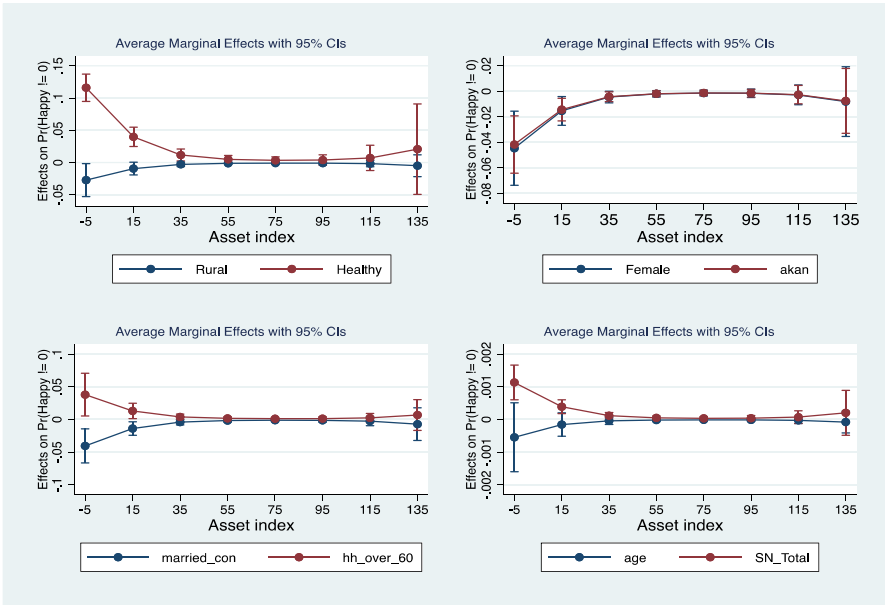


Fig. 2 Marginal effects of key determinants over different levels of asset index. Source: Authors' estimations

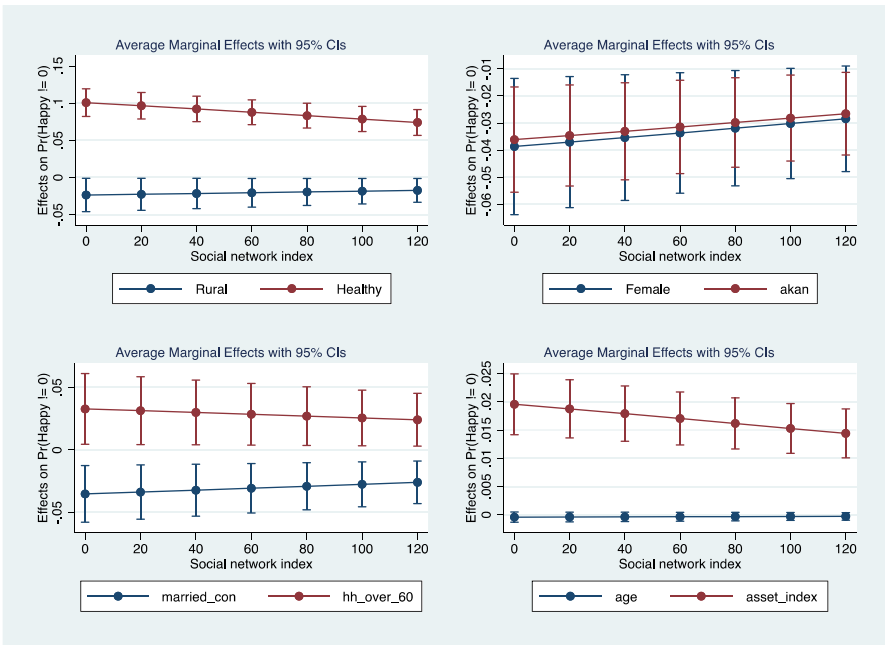


Fig. 3 Marginal effects of key determinants over different levels of social network. Source: Authors' estimations

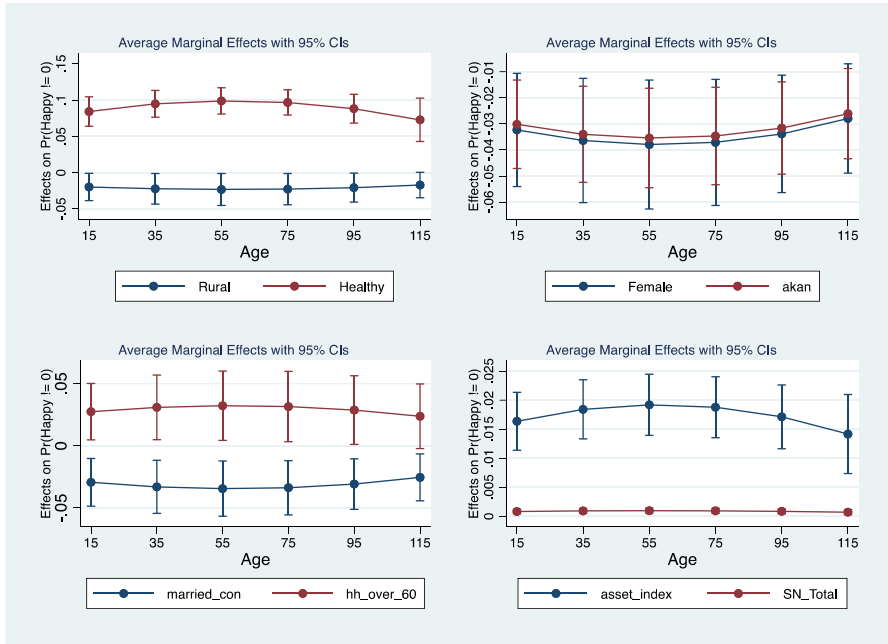


Fig. 4 Marginal effect of key determinants over different ages. Source: Authors' estimations

Figure 4 shows the marginal effects across age. Two key points of note are in the bottom right panel. First, it is observed that the effect of assets on happiness exhibits an inverted U-shape over one's age. At a younger age, assets matter for people's happiness. As people age, however, and beyond a certain threshold of age (around age 55), the importance of wealth for happiness diminishes even though it is not wiped off completely. This is often the case among Ghanaians. As people age, assets and material wealth begin to matter less to them. Secondly, regarding social networks, increasing age has no moderating effect. At all ages, the response of happiness to social networks remains unchanged. Young people, middle-aged, and older people all need social interactions to be happy. The Ghanaian society has been built this way over time. Traditional and customary practices such as the extended family system and community involvement in upbringing have typically yielded the situation where 'everyone's business is everyone else's business.' As a result, at all age levels, social interactions matter for people.

Transitions into and out of Happiness

This subsection examines drivers of transitions into and out of happiness.³ Columns (1) and (2) of Table 3 provides the results on the drivers of transition from a state of unhappiness to a state of happiness over any two successive periods

³ We present in Table A3 and A4 in the Online Appendix results of determinants of happiness across various multiple periods and determinants of period specific transitions in happiness status respectively.

versus remaining unhappy over any two consecutive periods. Columns (3) and (4) of Table 3 show the results on the drivers of transition from a state of happiness to unhappiness versus remaining happy over time. From the first pair of results, our findings show that rural dwelling, education, and being Akan are negatively associated with transitions from unhappiness to happiness. In other words, people are not likely to transition from a state of unhappiness to a state of happiness if they possess the above characteristics. On the other hand, assets and social networks are positively associated with transitions from unhappiness into happiness. As people's assets increase, they are likely to transition from unhappiness into happiness. Similarly, as people's social networks expand, they will likely transition from unhappiness to happiness. This confirms the results presented earlier on the determinants of happiness with one's life. A key finding here is the effect of real adult equivalent consumption expenditure. It shows a non-linear relationship with the transition from unhappiness to happiness. At lower levels of consumption expenditure, the relationship is positive, that is, increases in consumption for those with lower levels of consumption help them move out of unhappiness into happiness. However, the relationship changes at high real adult equivalent consumption expenditure levels. That is, if people have high consumption levels and are unhappy, further increases in consumption do not make them move out of unhappiness – a reflection of the theory of diminishing marginal utility. Thus, while real adult equivalent consumption was not found to determine happiness, it is significant in determining transition from unhappiness to happiness. The implication is that programs supporting low spending households' consumption expenditure could prove helpful in transitioning people from unhappiness into happiness. Indeed, evaluations of Ghana's Livelihood Empowerment Against Poverty (LEAP) program – a cash grant offered to poor households – have shown that the program was responsible for a lower likelihood of falling into poverty and better access to improved health care and engagement in economic activities for beneficiary households (Palermo et al., 2018; Davis et al., 2014). The program's protection from falling into poverty could make people happy, confirming our findings on adult equivalent consumption expenditure.

From columns (3) and (4) of Table 3, our results show that living in a rural area, age, being Christian, and being Akan are positively associated with transitions from happiness to unhappiness. As people get older, they tend to transition from happiness to unhappiness. This is potentially the case if old age brings with it poor health, less mobility, and general boredom and loneliness associated with retiring from work and staying home. Relative to non-Christians, being Christian is associated with transition from happiness to unhappiness. This may be counter-intuitive since Ghana is a country of religious freedom and religious tolerance. Thus, becoming Christian is a choice, and people are free to choose otherwise if being a Christian makes them unhappy, unlike Akan, which is not by choice but by birth. It was found further that assets, social network, and having a household member over age 60 is negatively associated with transitions from happiness to unhappiness. With increasing assets and social networks, people are less likely to transition from being happy to unhappy. Similarly, with a household member over age 60, people are less likely to transition from being happy to being unhappy.

In summary, the investigation into transitions into different happiness statuses shows that assets and social networks maintain their essential role in making people happy as they are responsible for increasing transitions from unhappiness into happiness and reducing transitions from happiness into unhappiness. Other factors which influence both transitions but in opposite directions include being Akan, female and rural dweller. Generally, and as one would expect, the factors that are positively associated with the transitions from unhappiness to happiness are negatively associated with the transitions from happiness to unhappiness. However, our results additionally show certain factors are important to only either of the two types of transitions in happiness status. Specifically, the results show that education and real adult equivalent consumption expenditure affect only the transitions from unhappiness into happiness but not the reverse transitions. On the other hand, it was found that age, being a Christian and having a household member who is over 60 years affect only the transitions from happiness to unhappiness and not the reverse transitions. This means the determinants of the transitions can vary by the type of transition or the initial state of happiness.

Conclusion

Contemporary development thought puts the welfare of people as the ultimate goal of economic development. This has made the question of *what makes people happy* a pivotal question guiding development policy in present-day societies. This study empirically investigates the drivers of happiness and the determinants of transitions into different happiness states in Ghana using the three waves of the Ghana Socioeconomic Panel Survey. We find that Ghanaian are becoming happier over time with a higher probability for individuals to exit an unhappy state than to exit a happy state. The key determinants of happiness in Ghana are good health, assets, an expansive social network, and urban residence. Furthermore, female power relations, ethnicity, marital status, and being ahead of one's peers in terms of economic and social standing also affect people's happiness in Ghana. While these results largely align with those from other studies (such as Nanor et al. (2021), Ngamaba (2017), Eren and Asici (2017), Addai et al. (2014), and Clark and Oswald (2002)), this study additionally provides three distinctive insights that previous studies hardly dealt with. First, our results suggest an important moderating role of assets, social network and age on the effect of other determinants of happiness. It was observed that in the presence of increasing assets, other determinants of happiness become less important to the individual, emphasizing the critical role of assets in accounting for overall happiness. However, as one's social network expands the role of assets in driving one's happiness also declines. Also, the role of assets is less important among older people compared to their younger counterparts as the effect increases with increases in age but starts to decline after about age 55. Second, the variables analysed as potential determinants of happiness include household member composition (having an aged household member and children), ethnic orientation as well as one's subjective evaluation of their position on the economic and social ladder within their

Table 3 Transitions in happiness status (2009–2018) – population averaged panel logit regression results

	(1)	(2)	(3)	(4)
	tr_unhap_panel (unhappy_ happy = 1; unhappy_unhappy = 0)		tr_unhap_panel (happy_ unhappy = 1; happy_ happy = 0)	
rural	-0.303** (0.134)	-0.269** (0.129)	0.146 (0.095)	0.195** (0.093)
female	-0.264 (0.165)	-0.292** (0.141)	0.261** (0.107)	0.175* (0.092)
age	-0.020 (0.023)	-0.015 (0.022)	0.032** (0.015)	0.036*** (0.014)
age_square	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000* (0.000)
education_any_l	-0.292** (0.140)	-0.270** (0.137)	0.093 (0.096)	0.108 (0.093)
vhealthy_l	0.064 (0.124)	0.090 (0.121)	-0.109 (0.081)	-0.117 (0.079)
christian_l	0.103 (0.136)	0.104 (0.133)	0.212** (0.091)	0.217** (0.089)
akan_l	-0.516*** (0.115)	-0.524*** (0.114)	0.143* (0.080)	0.175** (0.078)
married_con_l	-0.005 (0.142)	0.004 (0.140)	0.101 (0.096)	0.119 (0.089)
farm_l	0.249 (0.178)		0.113 (0.112)	
nonfarm_l	0.163 (0.190)		-0.068 (0.119)	
housework_l	0.331 (0.252)		0.175 (0.163)	
unemployed_l	0.317 (0.329)		-0.101 (0.183)	
not_labourmkt_l	0.112 (0.210)		-0.142 (0.143)	
hhsizel_l	0.052 (0.034)	0.043 (0.029)	-0.014 (0.020)	
hh_child_u5_l	-0.154 (0.158)		-0.036 (0.096)	
hh_over_60_l	0.082 (0.184)		-0.241** (0.115)	-0.236** (0.112)
female_power_l	0.089 (0.355)		0.301 (0.245)	0.304 (0.240)
asset_index_l	0.106** (0.043)	0.098** (0.041)	-0.094*** (0.026)	-0.101*** (0.026)
asset_squared_l	0.011 (0.010)	0.011 (0.010)	-0.000 (0.004)	-0.001 (0.004)

Table 3 (continued)

	(1)	(2)	(3)	(4)
	tr_unhap_panel (unhappy_ happy = 1; unhappy_unhappy = 0)		tr_unhap_panel (happy_ unhappy = 1; happy_ happy = 0)	
adulteq_exp_real_l	0.003*** (0.001)	0.003*** (0.001)	-0.000 (0.001)	0.000 (0.001)
adulteq_squared_l	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.000)	0.000 (0.000)
SN_Total_l	0.015*** (0.003)	0.016*** (0.003)	-0.004* (0.002)	-0.004** (0.002)
ma_fe_ratio_l	-0.098 (0.068)	-0.113* (0.067)	0.018 (0.040)	
time_use_T_l	-0.019 (0.043)		-0.007 (0.027)	
time_squared_l	0.001 (0.003)		-0.001 (0.002)	
laddercommunity_dummy_l	0.060 (0.133)		0.017 (0.078)	
ladderghana_dummy_l	0.067 (0.147)		-0.043 (0.088)	
Constant	1.110 (0.777)	1.018 (0.685)	-2.842*** (0.511)	-3.156*** (0.469)
Observations	1,803	1,832	5,020	5,121
Number of ppid	1,522	1,543	3,363	3,403
chi2	119.0	115.7	142.1	139.4
p	0	0	0	0

(1) Robust standard errors in parentheses; (2) *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; (3) Variables with ‘l’ attached to their names are time-varying variables whose one-period lagged values were used in the regressions

communities. These variables are largely missing from existing studies on happiness and therefore the findings from these bring additional insights into the discourse on the determinants of happiness in developing countries. Third, the use of the nationally representative panel dataset allowed us to examine the pattern of transitions into different happiness status over time and to provide a characterization of individuals’ making a given transition. For example, consumption expenditure is found to be significant in driving movement out of unhappiness into happiness. Another important insight worth highlighting here is that while both assets and social networks play essential role in these transitions, the effect or importance of other determinants of these transitions can vary by the type of transition or the initial state of one’s happiness. These insights bear significant practical and policy relevance. Thus, the findings by this study which uses a unique panel dataset on Ghana constitute

an important contribution not only to the literature but it also provides evident to inform policy or inspire policy makers to improve individuals' happiness status.

Based on the findings, we recommend that the policies that enhances health delivery system including preventive healthcare and behavioural changes that will improves individuals' health status. Having an efficient health delivery system and a sustainable way of financing same for residents to receive the healthcare services they need can keep people healthy and promote greater life satisfaction. Individuals also need to be highly conscious of their health, invest in their health and avoid lifestyle (or behaviour and practices) that negatively affect their health. Furthermore, measures that open up asset-accumulating opportunities, such as stable jobs with decent wages, are crucial to improving satisfaction with life and consequently making people happy. Additionally, it is recommended that infrastructure and economic opportunities in urban areas be extended to rural areas. This way, rural residents can experience a reasonably high standard of living similar to what pertains in urban areas to improve happiness for rural dwellers. Policies to augment consumption expenditures, especially for lower-income earners and indigents, such as cash grants or food subsidies, are recommended to enhance happiness. This study acknowledges the subjective nature of the measure of happiness employed. While that might be a potential limitation of this study, it does not invalidate the extent to which it can gauge satisfaction according to people's views of their life.

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