MARRIAGE AND SUBJECTIVE WELL-BEING IN GHANA

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ABSTRACT

This study uses individual-level data from the 2005–2008 Ghana World Values Survey (n=1 533), to explore the extent to which marriage is associated with subjective well-being (SWB) in Ghana. The analyses are carried out at three levels: the first part presents the distribution of well-being measures (happiness and life satisfaction) among Ghanaians; the second uses the chi-square technique to assess the relationship between marital status and well-being measures by gender; the third probes the relative influence of marriage on happiness and life satisfaction, paying attention to the moderating effect of gender (included as an interaction term). The main finding is that marriage has a negative association with subjective well-being among Ghanaians. The multivariate results confirm that marriage undermines happiness and life satisfaction among Ghanaians. However, the effect is only statistically significant on happiness. The marriage and gender interaction term does not have a statistically significant effect on either happiness or life satisfaction. In addition, upon introduction of the interaction term into the happiness regression model, the significant negative

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effect of marriage on happiness changes to positive. An attempt is made to explain these findings, paying attention to the economic and socio-cultural context in which marriages occur in Ghana. Weaknesses, policy implications, and future direction for research are discussed.

Keywords: Gender, Ghana, happiness, life satisfaction, marriage, subjective well-being

INTRODUCTION

Since Durkheim's study on suicide, social scientists have dedicated a significant amount of scholarly energy to understanding the interplay between social factors and well-being. Marriage is one such social factor that has gained considerable attention across the disciplines in well-being studies (see Dolan *et al.*, 2006, 2008). The overarching theme recurring in the studies is that marriage is positively related to subjective well-being – happiness and satisfaction in life (see Botha and Booysen, 2013). The literature further elaborates that married individuals tend to be happier and more satisfied with life compared to their never-married, divorced, separated or widowed counterparts (Frey and Stutzer, 2002; Graham and Pettinato, 2002; Shapiro and Keyes, 2008).

The association between marriage and subjective well-being has been explained in the general context of social support theory (Lakey and Cohen 2002; Reis and Gable 2003). Based on existing studies, social support is conceptualised as a human interaction in which socio-emotional, instrumental, and recreational resources are exchanged (Cohen and Syme, 1985). The mechanism through which marriage as a source of social support is associated with well-being continues to be a matter of debate; however, two general explanations – the 'protection' and the 'selectivity' hypotheses – can be deduced from the literature (Waldron *et al.*, 1996). While the former hypothesis visualises marriage as a system that supports a healthy lifestyle, the latter highlights that healthy people are choosy in selecting a partner for marriage.

The 'protection' hypothesis argues that marriage always comes with a web of supportive networks, which are germane to the well-being of couples, compared to their unmarried counterparts (Gove *et al.*, 1990; Stutzer and Frey, 2006). The basic assertion is that marriage bestows companionship, emotional support, sustained sexual intimacy, economic stability, and healthy behaviours on couples (Frey and Stutzer, 2002) and that these qualities account for their superior well-being status compared to the unmarried. Marriage instigates and supports a healthy lifestyle and behaviours, which, over time, may culminate in and facilitate desirable well-being outcomes (Umberson *et al.*, 1996). Predicated on the core tenet of the 'protection' hypothesis, marriage can then be seen as an agent of well-being promotion.

Despite the espoused virtues of marriage as a source of support – social, emotional, financial and psychological – for many individuals, marriage is also

the main source of stress (Whalen and Lachman, 2000). Sociological research generally finds that marital strain and an unsupportive marital social environment undermine well-being. For instance, Williams (1988) found that it is the quality of marital interaction, rather than marriage *per se*, that is more important for individual well-being. Studies have also found that an unsupportive social environment as a result of, for instance, poor marital quality, is significant in compromising immune function and causing depression, and tends to be detrimental to a couple's well-being (Kiecolt-Glaser and Newman, 2001). Nagasawa *et al.* (1990) note that negative social environments and their perceived barriers predict poor compliance with medical regimens among diabetes patients. Worth noting is documented evidence that caring for a sick or impaired spouse is associated with increased physical and psychiatric morbidity, impaired immune function, poorer health behaviour and worse health for the provider (Schulz and Sherwood, 2008).

The 'selectivity' hypothesis shows an association between marriage and well-being outcomes in the context of the attributes of the spouses (Wyke and Ford, 1992). The general argument is that people who are healthier and have superior well-being attributes are more likely to get married and remain married, whereas less healthy people remain unmarried or are more likely to be separated from their spouse (Keyes, 1998). The proposition is that individuals who are mentally, economically, morally, socially and physically healthy are more likely to select similar marriage partners (Mastekaasa, 1994). For example, people who are physically challenged are less likely to get married than their counterparts who are not. This phenomenon is interesting, as evidence from longitudinal research suggests that marriage has a positive influence on health and well-being even after controlling for selection factors (Waite and Gallengher, 2000).

Since Bernard's classic work on 'his' or 'hers' marriage, a considerable amount to scholarly work has been devoted to the moderating effect gender has on the interplay between marriage and well-being. Gove and Tudor (1973) report that marriage protects the mental health of men more than women. Yet Fox (1980) found contrary evidence, suggesting that women benefit more from marriage. Also, Waite and Gallagher (2000) indicate that unmarried women have a 50 per cent higher mortality rate than married women, and unmarried men have a 250 per cent higher mortality rate than married men.

As far as subjective well-being is concerned, some studies suggest that married women tend to be happier than unmarried women. Equally, other research studies show that married men are happier than unmarried men (Lee *et al.*, 1991; Waite, 1995). Along the same line, Williams (1988) found that the effects of marital quality are stronger among women than men. Williams' data also showed little support for the notion that the effects of marital quality on women's well-being are due to their greater reliance on marriage for self-validation, or a lack of alternate sources of role gratification in comparison with men.

Notwithstanding the depth of inquiry into gender differences in marriage benefits, the findings are inconsistent, conflicting, and sometimes confusing. Even more confusing is the analysis by Ross (1995), who found no gender differences. Therefore, the question of whether or not marriage is detrimental to the well-being of women (when compared to men) is less settled in the literature. In African societies like Ghana, where the gender gap is evident and marriage is the bedrock of social organisation, the relationship between marriage and well-being is very pronounced (Assimeng, 2007).

CHARACTERISTICS OF MARRIAGE IN GHANA – IMPLICATIONS FOR WELL-BEING

Marriage in Ghana is a universal social event that is guided by the customary and common laws of the country. Different avenues for marriage exist in the system – customary marriage, religious marriage, and marriage under the law or ordinance marriage. Customary law marriages derive their legitimacy from sections in Parts 2 and 3 of the *Marriages Act*, 1884/5. The Act defines marriage as a union between a man's family and a woman's family, but it is also a contract between two people – a man and a woman. Marriage therefore is purported to be a legal agreement between a man and a woman entering into a recognised relationship. The agreement has the effect of creating a certain status whereby the couples enjoy certain rights and assume certain responsibilities.

An important element of customary marriage is consummation of the marriage by cohabitation, and its potential for polygamy. However, among the Christian majority, marriage is understood as the voluntary union for life between one man and one woman. Interestingly, under the common law marriage is defined as a contract and a mutual agreement between a man and a woman, with a mutual promise of marriage for both partners. Common-law marriage has been codified into the *Marriages Act*, 1884/5. The main feature of a common-law or ordinance marriage is that it is monogamous, i.e., it is the union of one man and one woman to the exclusion of all others (Awedoba, 2005).

Although modern aspects of marriage decisions have penetrated into Ghanaian culture, especially mate selection (Manuh, 1997), the extended family continues to referee the marital process. Predicated on the strong extended family ties and beliefs that exist in the country, passionate relationships are discouraged and viewed with disdain. This is because such a strong intimate bond is perceived as a threat to, and a move away from, the traditional marriage values of approved and arranged marriages (Lesthaeghe and Eelens, 1989, Nukunya, 2003). This is particularly the case among the matrilineal Akans, who form the majority of the Ghanaian citizenry (Hayward, 1979). Generally, traditional beliefs and practices in the country support the patriarchal family system that reinforces the husband's authority and impedes

spousal intimacy (Barbieri *et al.*, 2005). Spousal age difference also continues to be a dominant feature in the society. A study by Casterline *et al.* (2010) reports a 20.5 per cent increase in the number of couples with age gaps between naught to five years for the period 1979–2008. Notwithstanding the level of exposure to Western ideals, polygamy (polygyny) is widely practised in Ghana (Westoff, 2003).

For a number of reasons (such as the search for economic survival, protection of young girls, peer group and family pressure, i.e., controlling female behaviour and sexuality, to the maximisation of fertility where infant mortality is very high), most young girls in the country are forced into marriage (Unicef, 2001). The 2008 Ghana Demographic and Health Survey (DHS) data suggest that 25 per cent of women aged between 20 and 24 years were married or were in union before age 18. This implies that one in four girls gets married before her 18th birthday. Interestingly, child marriage is marked by regional variations in Ghana. Forced child marriage prevalence is highest in the Upper East (50%), followed by the Upper West (39%), Northern Area (36%), Volta (33%), Brong-Ahafo (33%), Central Area (28%), Ashanti (23%), Western Area (18%), Eastern Area (18%), and Greater Accra (11%) (Ghana DHS, 2008). Child marriages deprive young females of the opportunity for personal development, and curb their right to full reproductive health and well-being, education and participation in civic life (Locoh, 2008).

The harsh reality is that for the majority of Ghanaian females, traditional norms pertaining to when and who to marry continue to influence marital decisions (Lesthaeghe and Eelens, 1989). Despite existing laws to protect women's rights and prevent child marriage, most females are ignorant of the existence and enforcement of such laws. A review of the literature reveals that, notwithstanding the flurry of studies reporting positive associations between being married and **s**ubjective well-being in Western societies (Wait and Gallengher, 2000), little is known about this relationship in Ghana. Even more disappointing is the fact that despite the preponderance of evidence from anthropological and sociological studies about the differences in impact of marriage on males and females in Ghana (Ryan and Sapp, 2007), there is virtually no study on the interplay between marriage, happiness and life satisfaction (**s**ubjective well-being) among males and females in Ghana.

The socio-cultural milieu in which marriages occur, especially for women in Ghana, is diametrically opposite from that of developed countries. This raises the question of whether marriage matters in happiness and life satisfaction (subjective well-being) in Ghana. If so, what is the extent of variation by gender? Using the nationally representative sample from the Ghana World Values Survey, this research sets out to fill a vacuum in the literature. We explore whether marriage is a liability or an asset in determining happiness and life satisfaction (**s**ubjective well-being), paying attention to the moderating effect of gender.

The impetus for this study is a series of fundamental societal transformations in Ghana that previous studies have found to have a tremendous impact on happiness and life satisfaction (Addai *et al.*, 2013a, 2013b, 2013c; Addai and Adjei, 2014).

Transitional theory asserts that any life or social event can be potentially stressful; whether or not it actually affects well-being is a function of people's cognitive appraisal of the event, and the availability of coping resources (Lazarus and Folkman, 1984). This assumes that not all members of a particular society experience the effects of social transformation to the same degree or in the same manner (Trommsdorff, 2000) and Ghana is no exception (Addai and Pokimica, 2010, 2012).

Studies show that during stressful periods, different kinds of resources have different effects on an individual's well-being, and intimate social integration, i.e., marriage, seems to provide the greatest sense of protection (Diener, 1984; Ryff, 1989; Thompson and Heller, 1990) although there are differences between males and females. Therefore, in an era of changing sociopolitical economy, demography and health (Addai *et al.*, 2013a) it is an open question whether being married boosts or undermines Ghanaians' happiness and satisfaction in life compared to that of their unmarried countrymen and women. We do not test any particular theory in the study, but explore the interplay between being married and **s**ubjective well-being with particular attention to the moderating effect of gender.

DATA AND MEASUREMENT

Data for this study are drawn from the Ghanaian component of the 2005–2008 Wave Surveys conducted in several countries, and focusing on a variety of socio-cultural, economic and political factors. The first round of the survey was done in 1990 with subsequent rounds in 1995 and 2000. Data collection in Ghana occurred between February and April 2007 through face-to-face interviewing of individual respondents selected from households using the Kish Grid. The interviews were conducted in five local languages: Ga, Dagbani, Ewe, Twi and Hausa. The study sample included 1 534 men and women aged 16 years and older.[20]

Among other measures, the survey collected detailed information about the respondents' views on democracy, their participation in the electoral process, governance, livelihood, well-being, economic concerns, social capital, crime and conflict, and perceptions about national identities. In addition, detailed information on the respondents' socio-demographic characteristics, including their age, education, place of residence, religious involvement, religiosity, region of residence, ethnic background, health status and marital status, were also collected.

ANALYTICAL TECHNIQUE

Analysis was carried out in two stages using a non-parametric method (Chi-square) to look at the association between two well-being measures (happiness and life satisfaction) and marriage. In the second stage, logistic regression equations were used to estimate multivariate models of the odds of a respondent reporting being satisfied with their life and happiness, rather than less satisfied with life and not

happy. The model helped to estimate the influence of being married on happiness and life satisfaction while simultaneously controlling for other measureable factors associated with well-being. The logistic regression model estimates a linear model in the following form:

$$\ln(p_i/(1 - p_i) = b_0 + b_iX_i$$

where pi is the estimated probability of a particular event happening to an individual with a given set of characteristics Xi; b_0 is a constant that defines the probability p_i for an individual with all X_i parameters set to zero; b are the estimated coefficients. The ratio $p_i/[1 - p_i]$ is the odds ratio of respondents with a given set of characteristics reporting better versus worse subjective well-being, measured through happiness and life satisfaction. The estimate of b_i for a particular covariate X_i is interpreted as the difference in the predicted log odds between those who fall within that category of characteristics and those who fall within the reference group or omitted characteristic. If each estimated bi is exponentiated (Exp[b_i]), the result can be interpreted as giving the relative odds of having better subjective well-being for those individuals with characteristic X_i, relative to those individuals in the reference group.

All results of multivariate models are given as the exponentiated coefficients. Considering the number of variables included in the study, four accepted significance levels normally used in social science studies (.10, .05, .01, and .001) were used in determining the statistical significance of the variables in terms of their association with, and influence on, the well-being measures, happiness and satisfaction with life, being studied. The omnibus test of model coefficient and its equivalent Hosmer-Lemeshow test were reported accordingly. The former was used to examine whether the explanatory variables adequately fit the data and the goodness of fit of the regression model.

Dependent variable

In this study, well-being is conceptualised and measured from the evaluative perspective (Diener, 1984). The main focus of this approach is to capture a global assessment of a respondent's sense of well-being. The main virtue in using the evaluative approach for the measurement of well-being is that it allows people to decide how well their life is going for them (Graham, 2010). Existing literature tends to generally categorise evaluative metrics of well-being into affective-happiness and cognitive-satisfaction (Andrews and McKennell, 1980). The two measures of well-being under consideration are captured by the following question:

Satisfaction in life: 'In general how satisfied are you with life?' recorded as a binary measure, with 1 = better (including 'much better' and 'better') and 0 = worse (combining 'same', 'worse' and 'much worse').

Happiness: 'Taking all things together would you say you are: (1 = very happy to 4 = not all happy).' Responses to the original question were re-coded into a binary

value: 1 = happy (including 'very happy' and 'rather happy') and 0 = not happy (including 'not happy' and 'not happy at all').

The distribution of satisfaction in life among the respondents is shown in Figure 1. Generally, it can be said that Ghanaians are satisfied with their lives. A little over 62.8 per cent of Ghanaians indicated that they were satisfied with life at the time of the survey. The story is even better for happiness: Figure 2 shows that about 78.5 per cent of Ghanaians professed to being happy, i.e., happy but relatively less satisfied in life. There is some divergence between happiness and life satisfaction among Ghanaians, which is buttressed by the fact that while 37.2 per cent indicated they were not satisfied with life, only 21.5 per cent professed not to be happy at the time of the survey. This shows that happiness and satisfaction in life measure two separate elements of individuals' subjective quality of life.

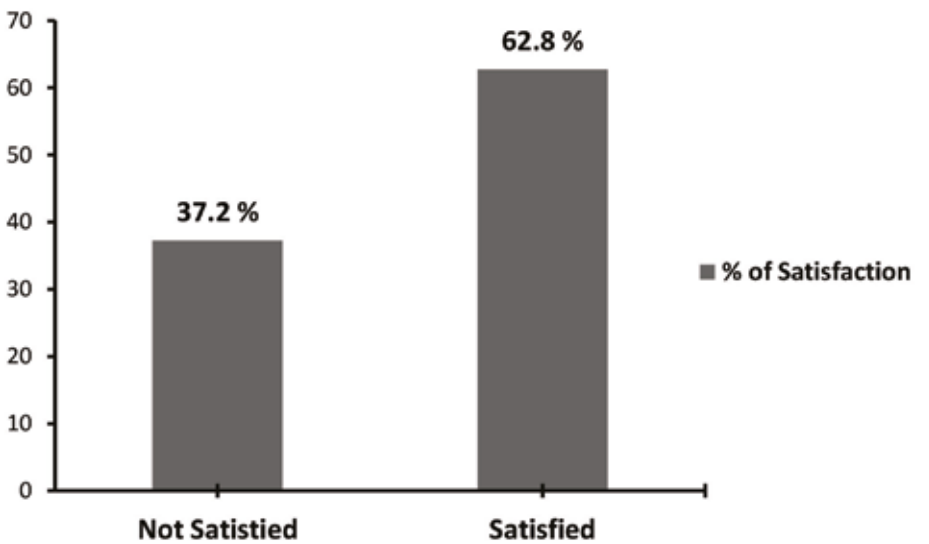

Figure 1: Summary characteristics of satisfaction
Source: 2005–2008 *Wave of World Values Survey* (n=1 533)

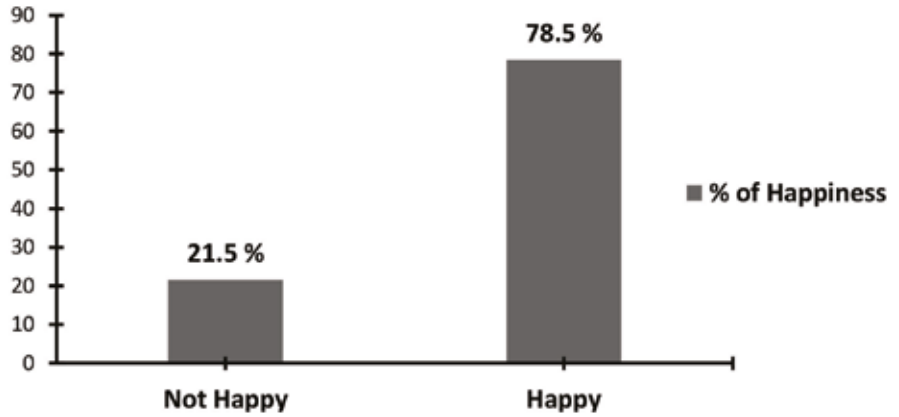

Figure 2: Summary characteristics of happiness
Source: 2005–2008 *Wave of World Values Survey* (n=1 533)

Independent variable

The main independent variable in this study is marriage. It is worth noting that due to the coding of the data, remarried respondents cannot be disaggregated from first-time marriages. Based on the theoretical framework guiding this study and the nature of the institution of marriage in Ghana, marriage is coded into: 1) married (married and cohabiting) and 0) unmarried (divorced/separated, widowed, single/never married) at the time of the survey.

Control variables

To assess the independent effect of marriage on happiness and satisfaction in life, theoretically relevant variables are controlled in the various models. All of the control variables included in the analyses are subsumed under broader categories: 1) economic factors – relative income, employment status, social class; 2) health factors – self-reported health; 3) geographic factors – region of residence (North versus South); 4) cultural factors – ethnicity, religious affiliation, religious involvement, attendance at religious service, religiosity; 5) social capital factors – interpersonal trust, institutional trust, civic engagement, freedom of choice, honesty, and 6) demographic factors – age, sex, education. We are cognizant of the fact that there are other measures, such as quality of marriage, friendship networks, mutual assistance, and levels of trustworthiness that have been found to be important in various studies on well-being and marriage. Unfortunately, most of these measures of social capital are not in the dataset, hence their exclusion from the analyses. Table 1 shows that interpersonal trust (mean = 5.08) and institutional trust (mean = 3.55)

are on average relatively high in the sample under study. On the other hand, civic involvement (mean = 3.29) and community engagement involvement (mean = 4.81) are on average relatively low. The data also reveal that the average age in the sample under study is 33 years.

Table 1: Descriptive statistics for variables

Variables	N	Range	Mean	Std dev
Control variables				
1. Interpersonal trust [a]	1533	0–7	5.08	1.36
2. Institutional trust [b]	1533	0–4	3.55	0.88
3. Age	1533	16–90	33.86	14.07
4. Civic involvement [c]	1533	0–9	3.29	2.39
5. Community engagement [d]	1533	0–11	4.81	2.38

**These are original variables some of which were used to create indexes for continuous measurement*
a. Interpersonal trust includes trust in relatives, neighbours, friends and general
b. Institutional trust includes trust in government, the judiciary, parliament and the police
c. Civic involvement includes membership of civil society organisations plus their activities
d.Community engagement includes activism, reading news from different sources, and voting in parliamentary elections (see Data and Methods for the creation of the continuous variables).

BI-VARIATE RESULTS

Respondents' characteristics

Table 2 presents the social, economic, social capital, demographic and health attributes of the respondents in the study. The data suggest that marital status (married and unmarried) tends to be almost equally distributed among the respondents (50.2 per cent and 49.8 per cent respectively). As expected, the majority of the respondents came from the Akan ethnic group (59.2 per cent). Whereas 59 per cent of the respondents reported affiliation with Protestant/Evangelical faiths, only 5.3 per cent indicated that they belong to a non-traditional religion. The data reveal that over 70 per cent of Ghanaians are actively involved in religion. Also, a little over 83 per cent of the respondents attended religious service regularly or once a week. The salience of religion among Ghanaians is buttressed by the fact that 91 per cent of Ghanaians reported that religion was important in their lives (religiosity) at the time of the survey.

Although almost 60 per cent of the respondents were employed at the time of the survey, just more than 50 per cent were in the lower relative income group and 42 per cent identified with the lower class. Focusing on social capital, it is interesting to note that whereas 78.2 per cent of respondents put a premium on freedom of choice

and control, only 39 per cent identified honesty as important. The sex composition of the respondents broke up almost evenly (50.4 per cent males; 49.4 per cent females). Contrary to expectations, whereas 55.9 per cent of respondents resided on the Northern section of the country, 44.1 per cent reported being resident in the South. The majority had elementary education (41.9%). Also worth noting is the fact that 80 per cent of respondents reported being in good health.

Table 2a: Descriptive statistics for variables

Variables	%	N
(a) Independent variable		
Married	50.2	770
Not married	49.8	764
Controls		
(b) Cultural variables		
Ethnicity		
Akan	59.2	908
Ewe	12.1	185
Ga	9.2	141
Others	19.6	300
Religious affiliations		
Catholic	20.8	319
Protestant/Evangelical	59.0	905
Muslim	14.9	228
None/traditional	5.3	82
Religious involvement		
Active	72.0	1 105
Inactive	28.0	429
Attendance of religious services		
Regular	45.1	692
Once a week	38.0	583
Occasional	16.9	259
Religiosity		
Yes	91.3	1 401
No	8.7	133
(c) Economic variables		
Relative income		
Upper	18.3	280

Variables	%	N
Middle	31.6	485
Lower	50.1	769
Social class		
Upper	1.5	23
Middle	30.3	465
Working	26.2	402
Lower class	42.0	644
Employment status		
Employed	58.2	893

Table 2b: Descriptive statistics for variables

Variables	**%**	**N**
(d) Social capital		
Freedom of choice and control		
Yes	78.2	1 200
No	21.8	334
Honesty		
Yes	39.0	598
No	61.0	936
(e) Demographics		
Gender	50.6	776
Male	49.4	758
Female		
Place of residence		
Southerner	44.1	676
Northerner	55.9	858
Education		
Elementary	41.9	643
High school	30.5	468
Post-secondary	9.8	150
Non-formal	17.8	273
Health status		
Good	80.3	1 232
Poor	19.7	302
N	1 533	1 533

Association between measures of well-being and marital status

To further probe the association between marriage, gender and well-being, three-way cross-tabulation analyses between marriage, well-being measures and gender were carried out (Table 3). The data reveal that a higher percentage of unmarried males indicated being happier (54.5 %) than their married counterparts (45.5%). When we focus on satisfaction in life, the story is different. The percentage of males who reported being satisfied with life tends to be almost identical among those who were married (50.2%) to those who were unmarried (49.8%) at the time of the survey. The picture is different when we scrutinise not being satisfied with life among the male respondents. There is a gap of almost 15 per cent between the married and unmarried males indicating being unsatisfied with life at the time of the survey.

Table 3: Summary characteristics of marital status by gender by happiness and life satisfaction

	Personal happiness			**Satisfaction in life**			
Variables	Happiness	Not-happiness	x^2 (df)	Satisfied	Not-satisfied	x^2 (df)	**n**
Male only							
Married	45.5%	51.6%	1.900 (1)	50.2%	57.4%	1.310 (1)	775
Not married	54.5%	48.4%		49.8%	42.6%		
Female only							
Married	50.6%	60.8%	5.554 (1) ***	45.0%	49.3%	3.745 (1) **	758
Not married	49.4%	39.2%		55.0%	50.7%		
Sample size (n=1533)							

*Note: ****p<.001, ***p<.01, **p<.05, *p<.10. Source: 2005–2008 wave of World Values Survey*

The number of females who indicated being happy at the time of the survey is almost even among the married (50.6%) and the unmarried (49.4%). Interestingly, whereas almost 61 per cent of the females who were married at the time of study revealed they were not happy, only 39.2 per cent of the unmarried females indicated likewise. The results show a 10 per cent gap between married and unmarried females when it comes to satisfaction with life. Whereas 55 per cent of the unmarried females reported being satisfied with life, only 45 per cent of the married females reported likewise .

Comparing males and females by marriage reveals an interesting picture: whereas 54.5 per cent of unmarried males professed to being happy, only 49.4 per

cent of unmarried females reported likewise. Along the same lines, 49.8 per cent of unmarried males professed to be satisfied with life compared to 55 per cent of unmarried females. Findings based on satisfaction in life show that, whereas 42.6 per cent of unmarried males indicated not being satisfied with life, the figure for unmarried females was 50.7 per cent. For the married, 57.4 per cent of males and 49.3 per cent of females professed not to be satisfied with life at the time of the survey. The overall message from the bi-variate analyses is that marriage is negatively associated with happiness and satisfaction in life among males and females in the country.

LOGISTIC REGRESSION – HAPPINESS AND SATISFACTION IN LIFE

To probe the relative importance of marriage in predicting happiness and satisfaction in life among Ghanaians, a series of multiple logistic regression models was carried out. Table 4 summarises the findings from the various regression models of the relationship between marriage, happiness and satisfaction with life. The omnibus test of model coefficients, which gives a better predictive analysis of individual scores as against the baseline model, was applied. The model Chi-square for personal happiness is 244.64 and satisfaction in life is 260.88. Both show a Hosmer-Lemeshow test of goodness of fit significance of $p<0.001$. By this, we conclude that the overall model with its explanatory predictors has a better fit than a model with no predictors.

Happiness

The analyses reveal that without an interaction term, the odds of professing happiness tend to be 30 per cent lower among married people compared to their unmarried counterparts (Model I). However, upon introducing the interaction term (marriage X gender), the effect of marriage on happiness becomes positive. The likelihood of professing happiness is 10 per cent higher among married than unmarried people (Model II). Thus, the data suggest that an individual's gender and marital status work in a complex way to influence happiness.

Consistent with previous studies from Ghana (Addai *et al*., 2013a, 2013b, 2013c), the main predictors of happiness among Ghanaians include cultural, social capital, economic, health and demographic variables. The data reveal that having Akan and/or Ga ethnic backgrounds significantly improve the odds of reporting happiness. For instance, Ghanaians who identify themselves as belonging to the Akan ethnic group are twice as likely to report being happy compared to their reference group.

Religion is also a significant determinant of the odds of professing happiness among Ghanaians. Whereas affiliation with the Catholic and Protestant/Evangelical faiths significantly reduces the odds of reporting happiness, active religious involvement increases the odds of being happy. For instance, the likelihood of a Ghanaian who is active in religious activities being happy is three times higher than

his/her counterparts who are inactive in religion. Although religiosity did not emerge as a significant predictor of happiness, attendance at religious service at least once a week is positively related to happiness.

As expected, upper and middle relative income backgrounds are significantly related to higher levels of happiness compared to members of the lower-income class. Contrary to expectations, having a middle-class background undermines the probability of reporting being happy. Employment status is of no consequence as far as happiness is concerned. Only two measures of social capital, community engagement and honesty, emerged as significant predictors of happiness among respondents. Ghanaians who value honesty are almost 50 per cent more likely to profess being happy, and the odds of reporting happiness are about 10 per cent higher among those who are actively engaged in their community.

The odds of professing happiness are 45 per cent lower among Ghanaians who live in the Southern part of the country, than their Northern counterparts. Education tends to be of consequence in determining happiness, but only amongst those who have elementary education. The only health variable in the equation emerged as the strongest predictor of the likelihood of reporting being happy. The probability of reporting being happy is approximately 4.4 times higher among those who perceive their health to be good, compared to those who reported poor health. Together, the predictors accounted for 15–23 per cent of the variance in happiness (see Table 3 for Cox and Snell and 'Nagelkar'). The overall log-linear ratio of the model for personal happiness is 1352.28.

Satisfaction in life

Just like happiness, marriage is negatively related to the odds of reporting satisfaction with life in the simple model without an interaction term (Model III). However, unlike happiness the effect of marriage does not have a statistically significant effect on satisfaction in life among Ghanaians. Ethnicity continues to be a salient predictor of well-being when we focus on satisfaction with life. However, unlike happiness, a Ga ethnic background did not emerge as a significant predictor of the likelihood of being satisfied with life, compared to the reference group. Religion is a pertinent predictor of satisfaction in life. One pathway through which religion influences satisfaction with life is affiliation with various religious denominations in the country. As with happiness, affiliation with the Protestant/Evangelical faiths reduces the odds of being satisfied with life. However, professing the Muslim faith increases the tendency of reporting satisfaction with life.

Religious engagement and involvement are the other indicators through which religion influences satisfaction with life. The odds of reporting being satisfied with life are 66 per cent higher among those who are active in religious events, compared to those who are inactive. The potency of religion in shaping satisfaction with life is reinforced by the fact that attendance at religious services (regularly and at least

once a week) increases the probability of being satisfied with life. As reported in an earlier study on Ghana (Addai and Pokimica, 2010), economic variables – especially relative income – emerged as important determinants of the likelihood of being satisfied with life. The tendency of a respondent to indicate that s/he is satisfied with life is 2.6 times higher for the upper class, and approximately 2.1 times higher for the middle relative income classes, compared to the reference group. Along the same lines, compared to those in the lower class, members of the working class are 56 per cent more likely to report being satisfied with life.

The data also lend credibility to the importance of social capital variables in determining satisfaction with life among Ghanaians. For instance, Ghanaians engaged in community activities and those who favour freedom of choice and control in life are more likely to report being satisfied with life. Finally, those who appraise their own health as good are 2.6 times more likely to report being satisfied with life, compared to those who rate their health as poor. All in all, the 16–21 per cent variance in satisfaction with life is explained by the variables included in this study (see Table 3 for Cox and Snell and 'Nagelkar' R-Squared). The overall log linear ratio of the model for satisfaction with life is 1766.5.

Studies have consistently pointed out the moderating effect of gender in understanding the interplay between marriage and well-being. To tease out the importance of gender in shaping well-being, interaction terms were introduced into the happiness and life satisfaction models (Models II and IV respectively). Interestingly, upon introduction of the interaction term, the effect which being married has on happiness changes from negative into positive (significant at the 10 per cent level). However, the interaction effect of marriage and gender on happiness is negative and statistically insignificant. As in Model II, upon introducing the interaction term between marriage and gender on satisfaction in life into the equation, the negative non-significant effect of being married changes into a positive effect. Just like happiness, the interaction term between marriage and gender on satisfaction with life is statistically not significant (Model IV).

Table 4a: Happiness and satisfaction regressed on marital status and controls (hierarchical logistics regression)

Variables	Model I	Model II	Model III	Model IV
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Independent variable				
Married (1=Yes; Ref: Not married=0)	0.771*	1.103*	0.900	1.045
Controls				
(a) Cultural variables				
Ethnicity				
Akan	2.012**	2.029***	1.640**	1.676**
Ewe	1.386	1.409	0.754	0.767
Ga	1.734*	1.773*	1.293	1.310
Ref: Others	-	-	-	-
Religious affiliation				
Catholic	0.526*	0.652		0.627
Protestant/Evangelical	0.490**	0.596		.594*
Muslim	0.832	1.035		1.553*
Ref: None/traditional	-	-		-
Religious involvement				
Active	3.137****	1.597***		1.661**
Ref: Inactive	-	-		-
Attendance of religious services				
Regular	1.184	1.167		1.373*
Once a week	1.476*	1.458*		1.376*
Ref: Occasional	-	-		-
Religiosity				
Yes	0.936	1.050		0.881
Ref: No	-	-		-
(b) Economic variables				
Relative income				
Upper	3.264****	3.256****		2.617****
Middle	2.096****	2.087****		2.083****
Ref: Lower	-	-		-
Social class				
Upper	2.252	1.740		0.982
Middle	0.635**	0.586***		0.895
Working	0.831	0.821		1.564***

Variables	Model I	Model II	Model III	Model IV
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Ref: Lower class	-	-		-
Employment status				
Employed	1.069	1.045		1.054
Ref: Unemployed	-	-		-

Table 4b: Happiness and satisfaction regressed on marital status and controls (hierarchical logistics regression)

Variables	Model I	Model II	Model III	Model IV
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
(c) Social capital				
Interpersonal trust	0.950	0.953	1.045	1.042
Institutional trust	1.029	1.045	1.061	1.075
Civic involvement	0.991	1.004	0.997	1.001
Community engagement	1.090***	1.089***	1.095***	1.094***
Freedom of choice and control (1=Yes; Ref: No=1)	1.133	1.144	2.090****	2.091****
Honesty (1=Yes; Ref: No=1)	1.486***	1.496***	1.231*	1.189
(d) Demographics				
Age	1.009	1.010*	1.002	1.003
Male (1=Yes; Ref: Female=0)	0.895	0.884	0.815*	0.873
South (1=South; Ref: North=0)	0.551****	0.547****	0.937	0.916
Education				
Elementary	1.445*	1.463*	1.057	1.052
High school	1.206	1.238	1.444*	1.333
Post-secondary	1.314	1.376	1.340	1.343
Ref: Non-formal education	-	-	-	-
Health Status (1=Good; Ref: Poor=0)	4.363****	4.111****	2.611****	2.584****
Interaction term				
Married * Gender	-	0.998	-	0.988
Log linear ratio	1 352.28	1 360.846	1 766.58	1 757.34
Model Chi-Square (omnibus tests of model coefficients)	244.64****	236.075****	260.88****	260.27****
Adjusted R-Square (Cox & Snell R-Square)	0.15	0.14	0.16	0.16
Adjusted R-Square (Nagelkerke R-Square)	0.23	0.22	0.21	0.21

Variables	Model I	Model II	Model III	Model IV
	Exp(B)	Exp(B)	Exp(B)	Exp(B)
Constant	0.216	0.178	0.079	0.074
N	1 533	1 533	1 533	1 533

*****p<.001, ***p<.01, **p<.05, *p<.10*

a: Reported coefficients for all variables standardised beta (B).

b: Model I Full Model for Feeling of Happiness

c: Model II Interaction Effect with Full Model for Feeling of Happiness

d: Model III Full Model for Feeling of Satisfaction

e: Model IV Interaction Effect with Full Model for Feeling of Satisfaction

f: Interpersonal trust includes trust in relatives, neighbours, friends and general

g: Institutional trust includes trust in government, the judiciary, parliament and the police

h: Civic involvements includes membership of civil society organisations plus their activities

i: Community engagement includes activism, reading news from different sources and voting in parliamentary elections

DISCUSSION

In the present study, a modest attempt has been made to explore whether marriage is related to well-being measured in terms of happiness and life satisfaction among Ghanaians. One of the outstanding findings from this study is that there are disparities between happiness (affective measure) and satisfaction in life (cognitive measure). This implies that happiness and satisfaction in life tap into two different aspects of well-being The gap between the two metrics of well-being, as reported in the study, may be attributable to the generally easy-going attitude of Ghanaians, as well as the social and economic challenges the majority have to deal with daily (Addai and Pokimica, 2010, 2012). Whereas Ghanaians generally tend to exude a positive attitude in their daily lives through various activities (e.g., attendance at funerals and church), declining economic conditions, a lack of jobs and unemployment in the country are detrimental to citizens' quality of life.

The analyses reveal that there are significant differences in the association between married and unmarried Ghanaians, as regards professing happiness and life satisfaction. Contrary to expectations, a greater percentage of unmarried Ghanaian males reported being happier than their married counterparts, however, they are almost as satisfied with their lives as the married are. More revealing, a higher percentage of married males professed to being less happy and satisfied with life, compared to the unmarried. The general picture portrayed here does not lend credence to the generally held view that marriage is more associated with happiness for males than for females. The rationale behind this finding can be attributable to the economic pressures married Ghanaian males endure in their daily lives, e.g., the pressure to provide for the daily needs of their wives and family, as Ghanaian

tradition demands, may undermine the happiness and satisfaction in life which married males experience.

Unlike their male counterparts, a higher percentage of married females reported being happy, but a lower percentage reported being satisfied with life. Among the unmarried females, however, a higher percentage indicated being satisfied with life, but a lower percentage professed being happy compared to married women. These findings may be explained in the context of the 'sanctioning or social stigma hypothesis', which argues that the stronger the disapproval of unmarried status in a society, the stronger the negative effect will be of unmarried status on subjective well-being (Diener *et al.*, 2000). Not being married is thus both a blessing and a curse as far as well-being among females is concerned. The data reveal that not being married is negatively associated with happiness amongst Ghanaian females, and positively associated with life satisfaction. An earlier study reported similar findings (Horwitz and White, 1998), explained on the basis of the social stigma hypothesis which may view unmarried individuals in a negative light. In Ghanaian society, where traditional gender bias continues to hold sway over women, unmarried females are more likely to be perceived as social misfits and, in modern religious culture, as sinners (Pokimica *et al*., 2012). It is therefore not surprising that being unmarried undermines females' happiness and reduces their satisfaction with life.

The general explanation for the positive association between being unmarried and satisfaction with life among females may be that unmarried individuals have companionship and regular sexual relations, independence and freedom from cultural pressures that married people may be lacking. This may explain the relatively high levels of satisfaction with life among unmarried females compared to their married counterparts. In Ghana, it is possible that the unmarried may experience less stress, be more emotionally stable, and hence more likely to be satisfied with their lives. The perplexing relationship between marital status and well-being, as reported in this study on a developing country like Ghana, demands further research.

In Ghanaian society where marriage is held in high esteem, the higher percentage of married males reporting less happiness may be attributed to the criticisms, avoidance, ostracism and guilt likely to follow such perceived deviant behaviour. Also, the higher percentage of unhappiness reported among married females may be understood within the socio-cultural context in which marriage occurs in the country. Rushing *et al.* (1992, 127) highlight it as follows:

Social institutions such as marriage are not in themselves beneficial or detrimental to well-being but it is the context within which roles and institutions are enacted and enforced that determines whether roles are positive or negative for quality of life or well-being.

Perhaps certain unrealistic cultural, social and economic pressures that married Ghanaian females have to endure in their daily lives may explain the high level of unhappiness amongst them. For example, the need to have children to satisfy a

husband's family, the violence women endure on a daily basis, coupled with trying to meet the daily needs of the family, may work in complex ways to undermine happiness among married females. This is even more acute in rural settings where the majority of the populations live, and where marriage is a universal phenomenon. In such settings, females have to walk long distances to fetch water and firewood as part of their matrimonial responsibilities. All the above factors suggest that the negative association between marriage and happiness among Ghanaian females may be attributed to the quality of marriage which females have to deal with, rather than to being married, per se.

Multiple regression analyses results reveal that being married has a detrimental effect on happiness. The story is no different when we turn to satisfaction with life. Marriage has a negative effect on satisfaction in life, although the effect is not statistically significant. The effects of the marriage and gender interaction term show a negative and insignificant relationship on both measures of well-being under study. Notwithstanding all the changes taking place in the country, cultural background contributes to happiness and satisfaction in life. This finding has been validated in earlier studies (Addai *et al.*, 2013a, 2013b, 2013c). This is not surprising, as cultural background has been cited as a significant determinant in other spheres of well-being, such as self-appraisal of health status (Addai *et al.*, 2013b), perceived well-being (Addai *et al.*, 2013a), economic well-being (Addai and Pokimica, 2010) and subjective quality of life (Addai *et al*., 2013c). In all these studies the dominant message is that cultural ideals instil certain norms and expectations (of which marriage is a part) and thus affect well-being.

CONCLUSIONS AND POLICY IMPLICATIONS

The analyses presented in this study reveal a number of findings with implications for public policies in the country. The most outstanding finding from this study is that being married has a negative impact on well-being among Ghanaians, although the association is not statistically very strong. This may be due to the prevailing cultural and socioeconomic contexts in poor countries, where well-being is predominantly predicted by economic factors. Another pertinent finding is that being married has a detrimental effect on happiness among females in Ghana. This finding suggests that the quality of marriage and traditional gender roles are essential in shaping well-being in Ghana – an important finding that demands further scrutiny.

This study is unique in a number of ways. Instead of using an index of well-being which is sometimes difficult to interpret and becomes less relevant for policy, we employed two commonly used global measures of well-being – happiness and life satisfaction. We also paid attention to the moderating effect of gender.

However, there are certain limitations that need to be acknowledged: 1) the cross-sectional nature of the data used prevents us from probing trends in the self-

assessment of well-being over time to establish causation; 2) the dataset lacks variables on the duration of marriage – including such a variable in the analyses may illuminate the threshold at which marriage becomes a liability for well-being. Lack of psychological variables (stress, depression, etc.) limits the depth of analyses; 3) the subjective nature of happiness and satisfaction in life raises questions regarding reliability as a measure of well-being. It is worth mentioning that some studies have found them to be a reliable and valid measure of well-being (Kahneman and Krueger, 2006); 4) with the use of secondary data, variables have already been coded in certain ways to suit particular purposes. In this study, for instance, relative income as a variable was coded as a decile on a scale (1=lowest, 10=highest) and not in absolute terms. It was therefore impossible to treat income as a ratio/interval-level variable; 5) last but not least, having data on violence against women, and gendered household responsibilities would have shed more light on the interplay between marital responsibilities, marital quality, the burden of care and well-being. Notwithstanding the above weaknesses and contentions about the measurement of subjective well-being, this exploratory study is an important contribution to the literature on subjective well-being in a non-Western society.

Focusing on the specific metrics of subjective well-being gives policy-makers a clear sense of predictors of such measures for planning and other policy processes. The answers to the question whether marriage matters in determining subjective well-being in Ghana, and how marital status affects this is partially affirmative, but depends on how subjective well-being is measured. The findings from this study call for a further examination of marriage and well-being in Ghana, particularly in terms of understanding its fundamental social influence on well-being as a means to improving quality of life.

The results of this study suggest a number of directions for future policy research in Ghana. In an era of dwindling resources, and mounting social and economic challenges, monitoring well-being requires new approaches. Individuals' assessment of their own well-being offers one possible approach for the country as a complement to traditional objective measures. Methodological studies on how to design surveys and collect reliable data about subjective well-being need to be considered an essential part of the public policy process and research in Ghana. For effective monitoring of quality of life, district-level statistical offices can be supported to collect data on peoples' assessment of their living circumstances. Such data can help shape district assemblies in the planning and execution of projects. At the national level, longitudinal research is needed to further shed light on the relative salience of various factors found to be pertinent to subjective well-being in the country over time. For example, the processes by which social capital variables and cultural background inform well-being can help direct resources and therefore warrant further investigation. Equally, research on the impact of economic challenges on individual well-being, captured through periodic assessment of happiness and satisfaction with life, are needed.

BIOGRAPHICAL NOTES

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ENDNOTE

1. For detailed documentation on the sampling procedure and questionnaire see http://www.wvsevsdb.com/wvs/WVSDocumentation.jsp?Idioma=I

REFERENCES

Addai, I. and Adjei, J. (2014). 'Predictors of self-appraised health status in sub-Saharan Africa: The case of Ghana', *Applied Research in Quality of Life*, vol. 9, no. 2, pp. 233–253.

Addai, I. and Opoku-Agyeman, C. (2013). 'Religiousness and perceived well-being in Ghana', in Noehammer, E. (ed.). *Psychology of well-being: Theory, perspectives and practice*, New York, Nova Publishers, pp. 143–172.

Addai, I., Adjei, J., and Ghartey, H.T. (2013a). 'Ethnicity and subjective quality of life in sub-Saharan Africa: The case of Ghana', in Agyeman, C., Collins O.A. and Ama de-Graft,

A. (eds.). *Ethnicity: Theories, international perspective and challenge*, New York, Nova Publishers, pp. 149–172.

Addai, I., Opoku-Agyeman, C., and Amanfu, S.K. (2013b). 'Exploring predictors of subjective well-being in Ghana: A micro-level study', *Journal of Happiness Studies*, vol. 15, no. 4, pp. 869–890.

Addai, I., Opoku-Agyeman, C., and Ghartey, H.T. (2013c). 'An exploratory study of religion and trust in Ghana', *Social Indicators Research*, vol. 110, no. 3, pp. 993–1012.

Andrews, F.M. and McKennell, A.C. (1980). 'Measures of self-reported well-being: Their affective, cognitive and other components', *Social Indicators Research*, vol. 8, no. 2, pp. 127–155.

Assimeng, M. (2007). *Social structure of Ghana*, second edition, Ghana Publishing Corporation, Accra.

Awedoba, A.K. (2005). *Culture and development in Africa: With special references to Ghana*, University of Ghana Press, Accra.

Barbieri, M., Hertrich, V., and Grieve, M. (2005). 'Age difference between spouses and contraceptive practice in sub-Saharan Africa', *Population*, vol. 60, pp. 617–654.

Botha, F. and Booysen, F. (2013). 'The gold of one's ring is not far more precious than the gold of one's heart: Reported life satisfaction among married and cohabitating South African adults', *Journal of Happiness Studies*, vol. 14, no. 2, pp. 433–456.

Casterline, J.B., Qian, Z., and Liu, J. (2010). 'Assortative matching on age: Trends in the spousal age difference', Paper presented at the annual meeting of the Population Association of America, 15–17 April, Dallas, Texas.

Diener, E. (1984). 'Subjective well-being', *Psychological Bulletin*, vol. 95, pp. 542–575.

Cohen, S. and Syme, S.L. (1985). *Social support and health*, Academic Press, San Diego.

Diener, E. (2000). 'Subjective well-being: The science of happiness and a proposal for a national index', *American Psychologist*, vol. 55, no. 1, pp. 34–43.

Diener, E., Gohm, C.L., Suh, E., and Oishi, S. (2000). 'Similarity of the relations between marital status and subjective well-being across cultures', *Journal of Cross-Cultural Psychology*, vol. 31, no. 4, pp. 419–436.

Dolan, P., Peasgood, T., and White, M.P. (2006). *Review of research on the influences on personal wellbeing and application to policy*, DEFRA Publications, London.

Dolan, P., Peasgood, T., and White, M.P. (2008). 'Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being', *Journal of Economic Psychology*, vol. 29, pp. 94–123.

Fox, J.W. (1980). 'Gove's specific sex role theory of mental illness', *Journal of Health and Social Behaviour*, vol. 21, pp. 260–267.

Frey, B.S. and Stutzer, A. (2002). *Happiness and economics: How the economy and institutions affect well-being*, Princeton University Press, Princeton, NJ.

Ghana Statistical Service. (2008). *Ghana Demographic and Health Survey 2008*, Ghana Statistical Service, Accra, Ghana and Claverton, USA.

Gove, W. and Tudor, J. (1973). 'Adult sex roles and mental illness', *American Journal of Sociology*, vol. 77, pp. 812–835.

Gove, W.R., Style, C.B., and Hughes, M. (1990). 'The effect of marriage on the well-being of adults: A theoretical analysis', *Journal of Family Issues*, vol. 11, no. 1, pp. 4–35.

Graham, C. (2010). 'The challenges of incorporating empowerment into the HDI: Some lessons from happiness economics and quality of life research', *United Nations Development Programme Human Development Reports Research Paper 2010/13.*

Graham, C. and Pettinato, S. (2002). 'Frustrated achievers: Winners, losers and subjective well-being in new market economies', *Journal of Development Studies*, vol. 38, no. 4, pp. 100–140.

Hayward, F.M. (1979). 'Perceptions of well-being in Ghana: 1970 and 1975', *African Studies Review*, vol. 22, no. 1, pp. 109–125.

Horwitz, A., White, H., and Howell-White, S. (1996). 'Becoming married and mental health: A longitudinal study of a cohort of young adults', *Journal of Marriage and the Family*, vol. 58, pp. 895–907.

Kahneman, D. and Krueger B.A. (2006). 'Developments in the measurement of subjective-being', *Journal of Economic Perspectives*, vol. 20, no. 1, pp. 3–24.

Keyes, C.L.M. (1998). 'Social well-being', *Social Psychology Quarterly*, vol. 61, no. 2, pp. 121–140.

Kiecolt-Glaser, J.K. and Newton, T.L. (2001). 'Marriage and health: His and hers', *Psychological Bulletin*, vol. 127, no. 4, pp. 472–503.

Lakey, B. and Cohen, S. (2000). 'Social support theory and measurement', in Cohen, S., Underwood, L.G. and Gottlieb, B.H. (eds.). *Social support measurement and intervention: A guide for health and social scientists*, Oxford University Press, Oxford, pp. 29–52.

Lazarus, R.S. and Folkman, S. (1984). *Stress, appraisal and coping*, Springer, New York.

Lee, G.R., Seccombe, K., and Shehan, C.L. (1991). 'Marital status and personal happiness: An analysis of trend data', *Journal of Marriage and the Family*, vol. 53, pp. 839–844.

Lesthaeghe, R. and Elens, F. 1989. 'The components of sub-Saharan reproductive regimes and their social and cultural determinants: Empirical evidence', in Lesthaeghe, R.J. (ed.). *Reproduction and social organization in sub-Saharan Africa*, University of California Press, Berkeley, pp. 60–81.

Locoh, T. (2008). Early marriage and motherhood in sub-Saharan Africa - brief article African environment - woman and African: cutting both ways', Available at http://findarticles.com/p/articles/mi_m2872/is_1_26/ai_62793785/, (accessed 20 February 2015).

Manuh, T. (1997). 'Wives, children, and intestate succession in Ghana', in: Mikell, G. (ed.). *African feminism and the politics of survival in Sub-Saharan Africa*, University of Pennsylvania Press, Philadelphia, pp. 77–95.

Mastekaasa, A. (1994). 'Psychological well-being and marital dissolution: Selection effects?', *Journal of Family Issues*, vol. 15, pp. 208–229.

Nagasawa, M., Smith, M.C., Barnes, J.H., and Fincham, J.E. (1990). 'Meta-analysis of correlates of diabetes patients compliance with prescribed medications', *The Diabetes Educator*, vol. 16, no. 3, pp. 192–200.

Nukunya, G.K. (2003). *Tradition and change in Ghana*, second edition, Universities Press, Accra.

Pokimica, J., Addai, I.', and Takyi, B.K. (2012). 'Religion and subjective well-being in Ghana', *Social Indicators Research*, vol. 106, no. 1, pp. 61–76.

Reis, H. and Gable, S. (2003). 'Towards a positive psychology of relationships', in Keyes, C.L.M. and Haidt, J. (eds.). *Flourishing: Positive psychology and the life well-lived*, American Psychological Association, Washington, D.C., pp. 129–159.

Ross, C.E. (1995). 'Reconceptualizing marital status as a continuum of social attachment', *Journal of Marriage and the Family*, vol. 57, pp. 129–140.

Rushing, B., Ritter, C., and Burton, R.P. (1992). 'Race differences in the effects of multiple roles on health: Longitudinal evidence from a national sample of older men', *Journal of Health and Social Behavior*, vol. 33, no. 2, pp. 126–139.

Ryan, R. and Sapp, A. (2007). 'Basic psychological needs: A self-determination theory perspective on the promotion of wellness across development and cultures', in Gough, I. and McGregor, A. (eds.). *Researching well-being in developing countries: From theory to research*, Cambridge University Press, Cambridge, pp. 71–92.

Ryff, C.D. (1989). 'Happiness is everything, or is it? Explorations on the meaning of psychological well-being', *Journal of Personality and Social Psychology*, vol. 57, no. 6, pp. 1069–1081.

Schulz, R. and Sherwood, P. (2008). 'Physical and mental health effects of family caregiving', *Journal of Social Work Education*, vol. 44, no. 3, pp. 105–113.

Shapiro, A. and Keyes, C.L.M. (2008). 'Marital status and social well-being: Are the married always better off?', *Social Indicators Research*, vol. 88, no. 2, pp. 329–346.

Stutzer, A. and Frey, B.S. (2006). 'Does marriage make people happy, or do happy people get married?', *Journal of Socio-Economics*, vol. 35, no. 2, pp. 326–347.

Thompson, M.G. and Heller, K. (1990). 'Facets of support related to well-being: Quantitative social isolation and perceived family support in a sample of elderly women', *Psychology and Aging*, vol. 5, no. 4, pp. 535–544.

Trommsdorff, G. (2000). 'Subjective experience of social change in individual development', in Bynner, J. and Silbereisen, R. (eds.). *Adversity and challenge in life in the new Germany and in England*, MacMillan Press, London.

Umberson, D., Chen, M.D., House, J.S., Hopkins, K., and Slaten, E. (1996). 'The effect of social relationships on psychological well-being: Are men and women really so different?', *American Sociological Review*, vol. 61, no. 5, pp. 837–857.

Unicef. (2001). 'Early marriage, child spouses', *Innocenti Digest 7*, March.

Waite, L.J. (1995). 'Does marriage matter?', *Demography*, vol. 32, no. 4, pp. 483–507.

Waite, L.J. and Gallagher, M. (2000). *The case for marriage: Why married people are happier, healthier and better off financially*, Doubleday, New York.

Waldron, I., Hughes, M.E., and Brooks, T.L. (1996). 'Marriage protection and marriage selection – prospective evidence for reciprocal effects of marital status and health', *Social Science and Medicine*, vol. 43, no. 1, pp. 113–123.

Westoff, C.F. (2003). *Trends in marriage and early childbearing in developing countries,* DHS Comparative Reports No. 5, Calverton, MD, ORC Macro.

Whalen, H.R. and Lachman, M.E. (2000). 'Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood', *Journal of Social and Personal Relationships*, vol. 17, no. 1, pp. 5–30.

Williams, D.G. (1988). 'Gender, marriage, and psychosocial well-being', *Journal of FamilyIssues*, vol. 9, no. 4, pp. 452–468.

Wyke, S. and Ford, G. (1992). 'Competing explanations for associations between marital status and health', *Social Science and Medicine*, vol. 34, no. 5, pp. 523–532.