

# **Gross National Happiness and Material Welfare in Bhutan and Japan**



# Gross National Happiness and Material Welfare in Bhutan and Japan

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Centre for Bhutan Studies

*Gross National Happiness and Material Welfare in Bhutan and  
Japan*

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## Note

This is a joint collaboration study between the Centre for Bhutan Studies and Dr. Takayoshi Kusago of Osaka University.

As the executing agency, the Centre has been responsible for coordination and implementation of the project from January 2006 until June-end 2007; and the designing of survey questionnaire and conduct of pilot survey on Psychological Wellbeing/Subjective Wellbeing (PWB/SWB) in Bhutan.

Dr. Kusago provided technical support to the Centre with the assistance of Dr. Kokoro Shirai of Osaka University for statistical analysis of the data on PWB/SWB pilot survey in Bhutan.

Main parts of this joint report have been authored as follows:

Dr. Takayoshi Kusago: Introduction, Part 2, conclusion

Dr. Kokoro Shirai: Part 1.5 -1.6

Tashi Choden: Introduction, Part 1.1 – 1.4, report compilation and editing

During the initial stages of project conception and formulation, Dorji Penjore, senior researcher at CBS, developed the project proposal to Japan Foundation. It should be noted that much of his text in the project proposal has been utilized in the introduction section of this report.

## Acknowledgements

We would like to thank The Japan Foundation in Tokyo, Japan and New Delhi, India for their generous funding of this project, which enabled us to carry out several significant activities over the course of one and half years.

The field survey in Bhutan was carried out by CBS researchers and temporary staff who spent long hours each day interviewing respondents across the country over the course of five months. Our appreciation goes out in particular to Phuntsho Rapten, Karma Wangdi, Karma Galay, Tshering Phuntsho, Sangay Chopel, Kuenzang Lhadon, Samdrup, Wangchuk Rinzin, Ugen Chhophel, Jigme Tshering, Chhothuen Thinley, Tshoki Zangmo and Ugen Yangchen for their hard work and dedication.

We are also grateful for the support extended by the Dzongdas, Dungpas, Gups, Tshogpas District Statistical Officers and other officials of Paro, Punakha, Thimphu, Chhukha, Sarpang, Trongsa, Bumthang, Mongar and Lhuentse Dzongkhags.

Central to the whole process were the respondents to our survey from all across Bhutan; to them we would like to express our deepest appreciation for their valuable time, warm hospitality, and for sharing with us their perceptions on their sense of happiness and wellbeing.

The results of the pilot survey in Bhutan and a report on Japan's economic growth and life satisfaction were presented by the authors at a seminar held on 5<sup>th</sup> June 2007 by the Centre in Thimphu. At this event, local participants and several others from across the region took active part in the discussions, and we would like to thank them all for their contribution. In particular, we extend our appreciation to the following invitees who made presentations during the latter half of the seminar:

Dr. Andre Beteille FBA, Chairman, Indian Council of Social Science Research, India on *Social Science Research*; Professor Kenji Kosaka, Dean, Dept. of Sociology, Kwansei Gakuin University, Japan on *Sociology of Happiness*; Ms. Sauwalak Kittiprapas, Director, Public Policy Development Office, Thailand on *A brief concept on 'happiness measurement and implications to public policy'*; Dr. Noppadon Kannika, Director of ABAC Poll, Assumption University, Thailand on *Designing the Gross Domestic Happiness Survey in Thailand*; and Mr. Yoichi Noguchi who was a discussant at the seminar

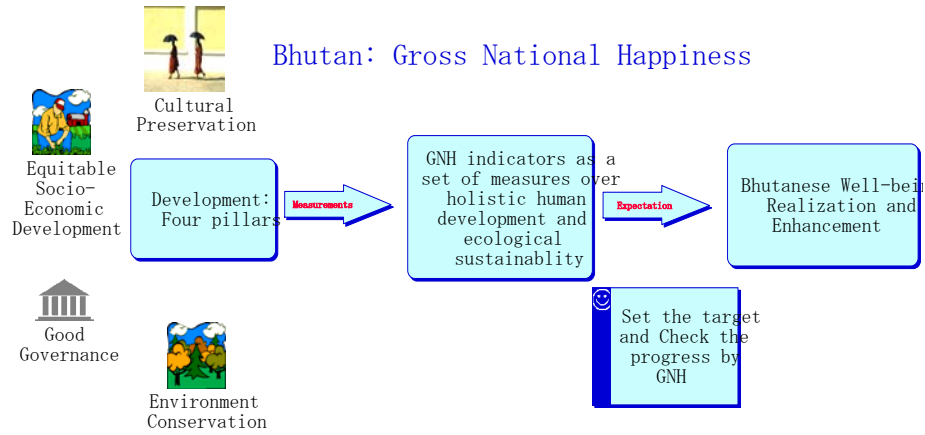




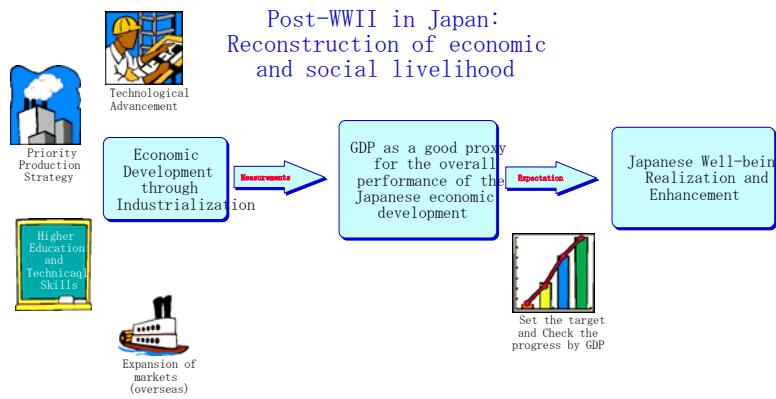
## Introduction

Empirical evidence strongly suggests that modern economic development has not increased subjective wellbeing in high-income countries, despite manifold increases of incomes over just a couple of decades. In many domains, people even experience a deterioration of their quality of life as competitive forces grow along with incomes. Stress at the work place, longer work weeks and less sleep, inequality-induced discrimination and poverty are just a few examples. Rising depression and suicide rates, high incidence of obesity and large-scale environmental destruction are also typical side effects of the pursuit of economic growth by many of the high-income states. While Japan clearly belongs to these high-income countries and, incidentally, has one of the longest series of subjective wellbeing data in the world, Bhutan belongs to the group of low or medium-income countries.

Unlike most of them, however, Bhutan has taken ownership of its development strategy and has come up with a unique development philosophy under the title “Gross National Happiness” (GNH) formulated by His Majesty the fourth King of Bhutan in the late 1970s. This expresses the idea that development should serve the wellbeing of the people and that economic growth is only a means for, not the end of, development. Recently, GNH has received international attention from development practitioners, academics, the media and even policy makers who are looking for potent new concepts to reverse the destructive social developments in their own countries. The Bhutanese government is now working on the Bhutan Development Index which will be composed of GNH indicators to monitor and evaluate its development process.



In Asia, Japan has been seen as the most industrialized country since its Meiji Restoration in the late 19<sup>th</sup> century with its clear goal of being a strong nation comparative to industrial nations in the West. This tradition has been kept after 1945 when Japan lost the pacific war. Since then, Japan showed miraculous economic growth performance and increased per capita real GDP more than eight times between the 1950s and 2000. The Japanese government has used GDP and other objective economic measures to monitor and evaluate its performance, assuming that this approach brings about advancement of people’s wellbeing.



Bhutan and Japan can be seen to be at two distinctive places in terms of ‘development’ as ranked by different performance indicators shown in the table below:

*Bhutan and Japan: contrast in development performance*

|        | GDP Rank (PPP value)           | HDI Rank (value)             | HPI Rank (value)           |
|--------|--------------------------------|------------------------------|----------------------------|
| Bhutan | 137 <sup>th</sup><br>(US1,969) | 135 <sup>th</sup><br>(0.538) | 13 <sup>th</sup><br>(61.1) |
| Japan  | 18 <sup>th</sup><br>(US29,251) | 7 <sup>th</sup><br>(0.949)   | 95 <sup>th</sup><br>(41.7) |

Gross Domestic Products: GDP (UNDP 2006); Human Development Index: HDI (UNDP 2006); Happy Planet Index: HPI (NEF 2006)

It is interesting to note the contrast that while Japan is placed much higher than Bhutan in terms of Gross Domestic Product (GDP) and Human Development Index (HDI), Bhutan is placed much higher than Japan by the Happy Planet Index (HPI). What can be understood from this is that the core areas of emphasis placed by each of these indicators significantly influences the projected performance of each country, highlighting their specific areas of strength and weaknesses. As such, it is clear that Japan's progress when measured in terms of economic growth (GDP) and human development (HDI) is very high, while the consequential impact of its industrial growth on the environment and sustainability is reflected by its low rank on the HPI. On the contrary, Bhutan's progress in terms of economic growth and human development as defined by the UNDP are far behind that of Japan as reflected by its GDP and HDI ranking, but its much lower impact on the environment and comparatively sustainable approach to development is reflected in its high rank on the HPI.

In recent years, studies on alternative development paradigms and subjective wellbeing have increased. For example, in the late 1980s, *our common future* known as the Bruntland report (WCED 1987), warned of the negative impacts of economic growth strategy on the eco-system and environment. In the 1990s, human development and human capability became intertwined pillars of development<sup>1</sup>, as they gained popularity among economists and social scientists who were becoming increasingly dissatisfied with conventional economic development strategy as a measure of progress.

With growing concerns over excessive economic growth and its use of existing economic development measures such as GDP, researchers around the world have attempted to come up with subjective wellbeing measures to assess the outcome of development policies and plans adopted by

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<sup>1</sup> This includes pro-poor economic growth approaches and capability approaches (Sen 1983), and development of human development index (UNDP 1990).

governments, based on people's expressed satisfaction or dissatisfaction with their lives.

In the field of psychology, subjective wellbeing studies have been carried out, challenging the concept of utility used in modern economics (Kahneman, Diener and Schwarz 1999; Diener and Suh 2000; Frey and Stutzer 2002). In the field of sociology, worldwide inter-country comparisons on subjective wellbeing have been made for many countries (Veenhoven 1993). In the field of economics, attempts are being made to examine what factors influence the level of one's happiness and life satisfaction (Frey and Stutzer 2002).

Coming back to the purpose of this project, it is through this collaborative study between the Centre for Bhutan Studies and Osaka University that we take a closer look at Bhutan and Japan's experiences and outlook in terms of subjective wellbeing and economic growth. While the two countries contrast in many respects, in particular with respect to geography and the stage of economic development, they also share common features. Both are largely Buddhist countries, and both can be said to be at a critical stage in their socio-economic development, although in quite different ways. While Japan must find a way to overcome a decade of economic crisis and to cope with the requirements of post-modern development, Bhutan must find an answer to the questions of how to deal with the changes triggered by its fairly recent modernization policy and how to position itself in the global economy. The challenge for both is essentially the same: how can economic progress be harnessed for the happiness of the people?

This study on *Gross National Happiness and Material Welfare in Bhutan and Japan* is an attempt to find some answers to this question, through the utilization of existing data on life satisfaction in Japan, and through a pilot survey inventorying people's perceptions on happiness and wellbeing in Bhutan. With their many differences as well as similarities, Bhutan and Japan are two uniquely positioned countries in Asia providing an interesting opportunity to understand the relation between economic or material prosperity and people's subjective perceptions on what is most important for their wellbeing.

This report consists of the two major parts:

PART I is the analysis report of the pilot survey carried out by the Centre for Bhutan Studies on psychological and subjective wellbeing (PWB/SWB) in Bhutan<sup>2</sup>.

PART II is the report on relationship between economic prosperity and people's perceptions of their lives through the long-term trend data regularly collected by the government of Japan.

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<sup>2</sup> Analysis comprise of descriptive analysis and simple cross tabulation analysis from section 1.3 to 1.4, and further levels of analysis including GLM, ANOVA, MANOVA, logistic regression analysis, linear regression analysis, path analysis, and factor analysis in section 1.5.



## **PART I**

### **Subjective Wellbeing in Bhutan: Results of the Pilot Survey on Psychological/ Subjective Wellbeing**





# 1 Subjective Wellbeing in Bhutan

## 1.1 Background

Gross National Happiness, a concept enunciated and inspired by the Fourth Druk Gyalpo<sup>3</sup> Jigme Singye Wangchuck, is Bhutan's development philosophy by which emphasis is placed on broader development goals such as spiritual wellbeing and happiness, and not economic growth alone. When planned development began in Bhutan in the early 1960s, the focus was primarily on the build up of basic infrastructure such as motor roads and the provision of social services in health and education. As Bhutan diversified its development activities over the decades, several priority areas were identified as essential to the overall direction of the development process. By the late '90s, these priority areas of culture, environment, governance, and balanced and equitable development came to be known as the four pillars of Gross National Happiness (GNH).

In order to ensure that Bhutan progresses along the GNH path, an important step in recent times has been the decision of the government to develop indicators for GNH that would facilitate in tracking development along such principles. In December 2005, the Centre for Bhutan Studies was assigned this task and has since been working on developing GNH indicators and testing out their feasibility through a pilot survey encompassing nine broad themes.<sup>4</sup> In brief, these nine themes that are considered vital elements of GNH fall within the domains of psychological wellbeing, health, time-use and balance, education, cultural diversity and resilience, good governance, community vitality, ecosystem diversity and vitality, and living standards.

Complementing this effort is the present report on *Gross National Happiness and Material Welfare in Bhutan and Japan*; it is a much smaller project and an independent one from the GNH indicator development project mentioned hitherto. Its focus is primarily on one dimension of GNH i.e. people's perceptions and subjective assessments regarding their state of wellbeing and happiness. Therefore, this report on PWB/SWB in Bhutan only broaches the basic question of what is important for wellbeing of Bhutanese at the psychological and internal level; it does not attempt to assess the external causal and conditional elements encompassing other dimensions of

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<sup>3</sup> *Druk Gyalpo*: King of Bhutan

<sup>4</sup> This is a two-year project that CBS has been executing upon the directive of the government, with funding from the UNDP Bhutan Program Office.

GNH. This is an important exercise in itself; after all, psychological wellbeing is partly an outcome and reflection of life circumstances and conditions existing at the individual, family, community and state level.

## **1.2 Overview of the pilot survey data**

The survey data used in preparing this report were generated from questions covering demographics, psychological/subjective wellbeing, and individual income level. The bulk of the analysis is based on the psychological/subjective wellbeing data, and the survey questionnaire on this section is given in Appendix I.

In this questionnaire, qualitative and open-ended responses were obtained by asking respondents to list the things that they consider to be most important for their happiness and life contentment. They were encouraged to make subjective evaluations of their lives through questions that ask them to rate: their level of happiness in general; the quality of their life; their life enjoyment level; and their satisfaction with the major life domains of health, financial security, major occupations, and familial relationships. In order to get a sense of the social support available based on individual perception, respondents were asked how often various kinds of support are available to them when they need it. To get a general idea of self-assessed stress levels and major causes of stress amongst the sampled population, respondents were asked how stressful life was over the past year as well as the main source(s) of stress. The GHQ-12 (12-item General Health Questionnaire) was used to get an indication of general mental state amongst the sample i.e. possible indication of depression and anxiety, severe mental problems, or normal mental health. On spirituality, people were asked how spiritual they consider themselves to be, and a number of questions enquiring about the frequency of various spiritual practices and teachings in daily life. Emotional experiences of the people were captured by asking how frequently they experienced several positive and negative moods/emotions over the past few weeks.

While there is data on income, amount of land and agricultural equipments owned amongst other detailed questions on living standards at the household level, only respondents who happened to be heads of households were asked to answer these sections. However, the question on individual income i.e. “Approximately how much cash income did you receive during the past 12 months?” was asked of all respondents regardless of whether they were heads of households or a member of the family/household.

Therefore, only individual income data is used in this report to ensure that all respondents can be included in analysis involving income level.

The demographic section contains the usual items: gender, age, marital status, education background & literacy, religion, geographical region, language, occupation and employment status, household size, and mobility pattern. Keeping in consideration the prevailing situation in Bhutan, education includes not only formal modern education, but also Non-Formal Education (NFE), instruction from lay monks/nuns and monastic education. Again, given the reality of Bhutan, people were asked to list their main activities or occupations during the past 12 months whereby the multiple areas of work that individuals undertake would be reflected. However, for our purposes, we have used only the current employment status data which reflects whether one is employed, unemployed and looking for work, or unemployed but not looking for work (student, homemaker, retired persons, others).

Prior to formulation of the survey questions, literature review was carried out exclusively for four months to study the existing body of work on happiness, subjective wellbeing, psychological wellbeing, and the like. Literature review continued alongside the construction of questions for the survey over the following three months, keeping in consideration the local Bhutanese context. Internationally used scales and items such as the happiness scale, quality of life scales, life satisfaction scales, and social support items have been used in this questionnaire to the extent of their relevance and applicability, so that there may be some basis for international comparison with the data. However, complete sets of questions could not be used in most of these cases as not all items could be translated meaningfully into local languages and dialects, and some items were not comprehensible in local context.

### 1.3 Descriptive analysis of data

#### 1.3.1 Demographic Aspects

##### 1.3.1.1 Geographic distribution

The survey was conducted in nine *Dzongkhag* (districts) to cover various geographical regions in Bhutan. Of the total 350 respondents, 123 persons or 35.1% are from the western districts of Paro, Punakha and Thimphu. There are 53 respondents or 15.1% of the sample from the central districts of Trongsa and Bumthang; 90 persons or 25.7% from the eastern districts of Mongar and Lhuentse; and the remaining 84 persons or 24% from the southern regions of Chhukha (Phuentsholing) and Sarpang.

##### 1.3.1.2 Gender, marital status and religious background

Female respondents account for 185 or 52.9% of the sample, and male respondents 165 or 47.1%. At the time of the survey, 72.3% of the respondents were married, 18.3% had never been married, 5.7% were divorced, 0.6% were separated, and 3.1% were widowed. Buddhism is reported as the main religion by 97.1% of the sample, and Hinduism by 2.9%.

##### 1.3.1.3 Education background

Of all the respondents 58% have not attended any formal schooling, 10.9% have completed their undergraduate studies, and 2% have completed their Master's level studies. Those who studied up to the primary level (between grades 1-6) make up 14% of the respondents, and 28% have studied at the secondary level (grades 7-12). Those with vocational training background make up 2% of the respondents, and 9.5% of the respondents attended non-formal education (NFE). 7.1% of the respondents had some form of instructions from *gomchen* (lay monk), while 4.9% had formal monastic education. In terms of literacy, 32.6% are literate only in Dzongkha; 3.7% literate only in English; 0.9% literate only in Nepali; 0.3% literate in both English and Nepali; 1.7% literate in Dzongkha, English and Nepali; and 15.1% literate in both Dzongkha and English.

##### 1.3.1.4 Linguistic background

Bhutan's national language is Dzongkha, but other languages and dialects are also prevalent in the country. When asked what is most commonly spoken at their homes, 35.7% said Dzongkha, 11.7% said Sharchop, 23.4% said Cho-ca-nga-ca, 11.7% said Bumthangkha, 4.3 said Khengkha, 4% said Kurtop, 1.4% said Mangdebikha, 3.7 said Monpakha, 3.1 said Lhotshamkha, 0.3 said Dranjobikha, 0.3 said Chalikha, and 0.3 said English.

1.3.1.5 *Employment status*

Of the 329 persons who responded to this question, 72.7% were employed, and 1.2% were unemployed and looking for work at the time of the survey. In other groups, students accounted for 8.5%, retired persons 1.5%, and homemakers (housewives) 16.1%. The latter three (students, retirees, homemakers) are categorized together as ‘unemployed but not looking for work’ in the rest of the report.

1.3.1.6 *Age grouping*

The youngest respondent in this survey was a 13 year old boy, and the oldest an 87 year old women. 3.7% of the respondents fall in the age group of 0-17 years, 31.3% fall in the 18-30 years age group, 33.3% fall in the 31-45 years age group, 21% fall in the 46-60 years age group, and 10.6% fall in the 60 years and older age group.

Table 1.1: *Demographic aspects*

| Demographics   | Frequency | %     |
|--|-----------|-------|
| <b>Geographical area</b>   |           |       |
| West (Paro, Punakha, Thimph)   | 123       | 35.1% |
| East (Mongar, Lhuntse)   | 90        | 25.7% |
| Central (Bumthang, Trongsa)  | 53        | 15.1% |
| <b>Gender</b>  |           |       |
| Female   | 185       | 52.9% |
| Male   | 165       | 47.1% |
| <b>Age group</b>   |           |       |
| 0-17 years   | 13        | 3.7%  |
| 18-30 years  | 109       | 31.3% |
| 31-45 years  | 116       | 33.3% |
| 46-60 years  | 73        | 21.0% |
| 60 ≤ years   | 39        | 10.6% |
| <b>Education background</b>  |           |       |
| No formal education  | 203       | 58.2% |
| 1 – 6 grade  | 49        | 14.0% |
| 7 – 10 grade   | 36        | 10.3% |
| 11 -12 grade   | 10        | 2.9%  |
| Further education  | 51        | 14.6% |
| <b>Marital status</b>  |           |       |
| Never married  | 64        | 18.3% |
| Married  | 253       | 72.3% |
| Divorced/separated/widowed   | 33        | 9.4%  |
| <b>Employment status</b>   |           |       |
| Employed (includes farming)  | 239       | 68.3% |
| Unemployed and looking for work  | 4         | 1.1%  |
| Unemployed but not looking for work<br>(student, homemaker, retired, others) | 105       | 30.5% |

## 1.4 Wellbeing and PWB/SWB Measures

### 1.4.1 Sources of wellbeing and happiness

The first question that was asked of all respondents was: “What are the six or seven things that you consider to be most important in leading to a happy and contented life?” This open-ended question was asked in order to hear directly from individuals their own thoughts and ideas on the constituents of a happy and contented life for themselves. The respondents were given the option of listing a minimum of one and a maximum of seven items in their response. Of the survey sample of 350 respondents, 2 persons did not answer this question at all.

Based on the responses of 348 persons, the answers were coded under 16 categories.<sup>5</sup> For each of these categories, the frequency of responses (number of people whose responses fall under each of these categories) is also given below:

*Table 1.2: Source of wellbeing and happiness*

|    | What are the six or seven things that you consider to be most important in leading to a happy and contented life? | N = 350 | Valid % |
|----|---|---------|---------|
| 1  | Financial security  | 231     | 66.0    |
| 2  | Good family life and wellbeing of family  | 155     | 44.3    |
| 3  | Good health   | 151     | 43.1    |
| 4  | Resources for farm production   | 117     | 33.4    |
| 5  | Access to basic facilities  | 88      | 25.1    |
| 6  | Personal development and education  | 69      | 19.7    |
| 7  | Faith and spiritual pursuits  | 60      | 17.1    |
| 8  | Employment & job satisfaction   | 57      | 16.3    |
| 9  | Good governance & welfare system  | 40      | 11.4    |
| 10 | Good inter-personal relations   | 35      | 10.0    |
| 11 | Principles & responsibility   | 30      | 8.6     |
| 12 | Community vitality  | 28      | 8.0     |
| 13 | Country's peace & security  | 28      | 8.0     |
| 15 | Recreation  | 17      | 4.9     |

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<sup>5</sup> The responses to this question were grouped under general themes or categories as could be applied to them. For example, there were several responses such as “no disease and sickness”, “healthy life”, “health facilities”, which could all be clubbed together under a general category created as “Good Health”. In the same manner, other categories were created based on people’s responses (and not by supplying fixed set of responses for them to choose from).

*1.4.1.1 Financial security: 231 respondents*

Financial security is the most common requirement for happiness and wellbeing as cited by the respondents. Within this category, respondents are mainly concerned about being self-sufficient and independent in earning their livelihood, in earning adequate income to provide a decent standard of living for themselves and family members, in owning land and house. Except for a few individuals who specifically identified their desire for luxury cars and cash, most of the respondents identified with wanting to lead a decent and secure life in terms of finances.

*1.4.1.2 Good family life and wellbeing of family: 155 respondents*

Most of the respondents listing family talked about the importance of family relations and the wellbeing of family members. This category includes the importance of maintaining good ties and relationships, close and understanding family, enough time to spend together, having children as well as good future for them, supportive spouse or life partner, and the general wellbeing of family.

*1.4.1.3 Good Health: 151 respondents*

Personal good health, as well as the good health of children and other family members, is listed by respondents as an important condition to their overall wellbeing and happiness. Some explained that in the absence of sickness and death among family members, they do not carry as much worry or stress as they would otherwise have to go through.

*1.4.1.4 Resources for farm production: 117 respondents*

Most of the respondents who listed this are farmers residing in rural and semi-rural areas. They referred mostly to the importance of being able to reap good agricultural harvest with the availability of livestock, agricultural equipments, farm land and government support in these areas.

*1.4.1.5 Access to basic facilities: 88 respondents*

The majority of the respondents who listed under this category are people residing in semi-rural and rural areas of the country. Their main point is that access to basic facilities such as clean water, electricity, education & health facilities, road and other communication facilities are important for them to be able to lead comfortable lives. A few of the respondents also pointed to the need for easy access to loan and financial support institutions.

*1.4.1.6 Personal development and education: 69 respondents*

Individuals mentioned the need for personal development of themselves through education qualifications and other means, for the good quality of

education for their children, and the importance of free education available in the country for the general population.

*1.4.1.7 Faith and spiritual pursuits: 60 respondents*

Praying, visiting sacred places, meeting religious figures and *lama*, and carrying out various religious ceremonies were some of the most commonly listed items under this category.

*1.4.1.8 Employment and job satisfaction: 57 respondents*

This category includes the respondents' expressed needs for adequate job opportunities, job security, job satisfaction and good working environment.

*1.4.1.9 Good governance and welfare system: 40 respondents*

Respondents expressed appreciation for, as well as importance of continued support provided by the government towards people's welfare, and emphasized the importance of strong law and justice system.

*1.4.1.10 Good inter-personal relations: 35 respondents*

This category includes the need for good social relations in terms of being able to maintain and enjoy personal friendships, and good relations with relatives, neighbours and other people.

*1.4.1.11 Principles and responsibility: 30 respondents*

This category summarizes the need to uphold ethics, morals and responsibility as expressed by the respondents. These include the idea that it is important to lead uncorrupted life, being kind to others, supporting family and relatives, living up to parents' expectation and being productive citizens.

*1.4.1.12 Country's peace & security: 28 respondents*

Most respondents pointed to the need for general peace of the country, and a few referred to military security and the absence of war.

*1.4.1.13 Community vitality: 28 respondents*

Most respondents stressed the importance of cooperation within the community, good neighbourhood, and the absence of social and community problems such as drug abuse.

*1.4.1.14 Recreation: 17 respondents*

Respondents cited the importance of having adequate time for relaxation, sports and entertainment.

*1.4.1.15 Mental peace: 12 respondents*

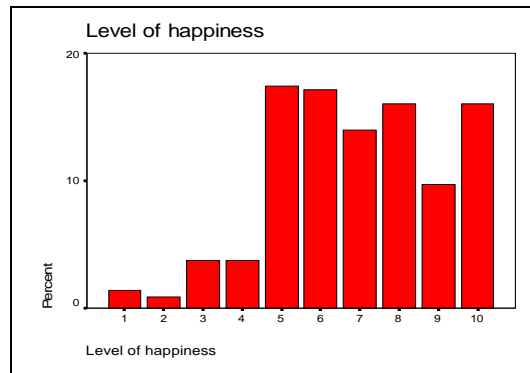
Under this category, respondents said that it is important to maintain a sense of calm, to have no worries and stress, and to feel at peace.



### 1.4.2 Level of happiness

Asking people to rate themselves on a happiness scale is a commonly-used measure of subjective wellbeing. Respondents are asked what kind of person they consider themselves to be by asking them to rate their level of happiness from 1 to 10, whereby 1 is rated as “not a very happy person” and 10 is rated as “a very happy person”. The average happiness score for 350 respondents in this survey is 6.93, which indicates that overall self-rated happiness is on the higher side. In contrast to 1.4% or 5 persons reporting the lowest level of happiness (1 on the scale), 16% or 56 persons reported the maximum level of happiness (10 on the scale). Overall, 27.1% scored along the first half of the scale (1 through 5) while 72.9% scored along the second half of the scale (6 through 10).

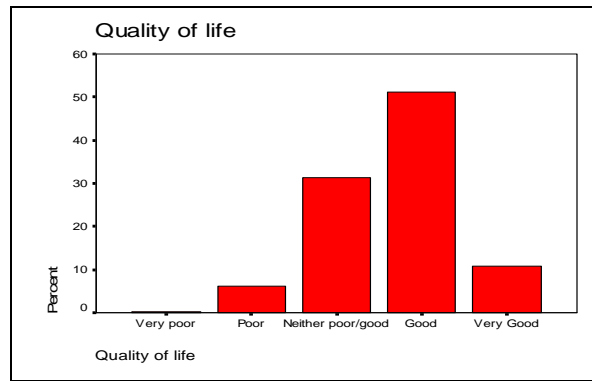
Figure 1.1



### 1.4.3 Quality of life (QOL)

Asking people to rate the quality of their life in general is another measure of subjective wellbeing. In response to the question, “How would you rate the quality of your life?” 62% of the respondents reported having good quality of life (very good 10.9%, good 51.1%), 6.6% reported poor life quality (0.3% very poor, 6.3% poor), and 31.4% reported in between (neither poor nor good).

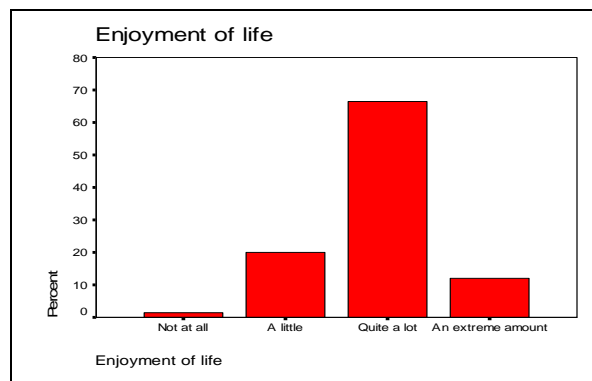
Figure 1.2



#### 1.4.4 Life enjoyment

The ability to enjoy life is also a measure of subjective wellbeing. In response to the question “How much do you enjoy life”, 66.6% (233 persons) answered “quite a lot”, and 12% (42 persons) reported “an extreme amount”. Only 5 persons or 1.4% reported not enjoying life at all, and 20% (70 persons) reported enjoying life only “a little”.

Figure 1.3

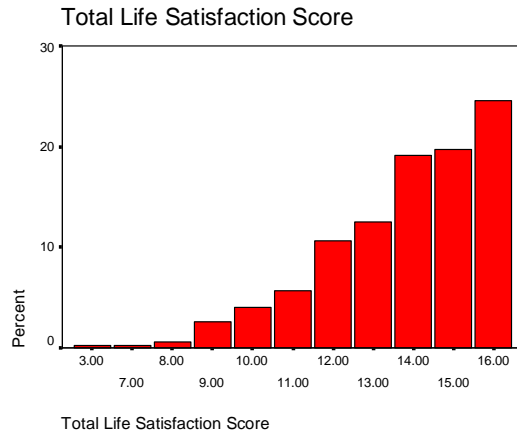


#### 1.4.5 Life satisfaction

The satisfaction-with-life scale is also a common measure of subjective wellbeing. In this survey, people were asked to rate their satisfaction with major areas of life such as health, security of finances/livelihood, major occupation, and familial relationships in order to assess overall satisfaction with life. The total life satisfaction score averaged 13.80 based on a total minimum score of 3 and a total maximum score of 16. The outcome shows that the majority of the respondents are satisfied with life overall, with 24.6% of the respondents scoring 16 points (the maximum score), 19.7%

scoring 15 points, and 19.1% scoring 14. Below the average score level, only 0.3% or 1 person scored an absolute minimum of 3 points.

Figure 1.4



In individual areas of life, 56% reported complete satisfaction with their general health, 34% reported being fairly satisfied, 5.4% reported being not very satisfied, and 3.4% reported dissatisfaction with their health.

With regard to the security of their finances and livelihood, 39.4% reported complete satisfaction, 40.9% reported being fairly satisfied, 13.4% reported being not very satisfied, and 5.4% reported total dissatisfaction.

As for major occupations (farming, other jobs, studies), 62.9% reported complete satisfaction, 26.9% reported being fairly satisfied, 6% reported being not very satisfied, and 1.7% reported dissatisfaction with their occupation.

And lastly, 86.6% reported complete satisfaction with their relationships with family, 10.3% reported being fairly satisfied; only 2.3% and 0.3% reported being not very satisfied and total dissatisfaction respectively. The details of these responses are given in table 1.3.

Table 1.3: Satisfaction with major life domains

|                       | Health |      | Finances/<br>livelihood<br>security |      | Major life<br>occupation |      | Familial<br>relationship |      |
|-----------------------|--------|------|-------------------------------------|------|--------------------------|------|--------------------------|------|
|                       | N      | %    | N                                   | %    | N                        | %    | N                        | %    |
| Satisfied             | 196    | 56.0 | 138                                 | 39.4 | 220                      | 62.9 | 303                      | 86.6 |
| Fairly satisfied      | 119    | 34.0 | 143                                 | 40.9 | 94                       | 26.9 | 36                       | 10.3 |
| Not very<br>satisfied | 19     | 5.4  | 47                                  | 13.4 | 21                       | 6.0  | 8                        | 2.3  |
| Dissatisfied          | 12     | 3.4  | 19                                  | 5.4  | 6                        | 1.7  | 1                        | 0.3  |
| Don't know            | 4      | 1.1  | 3                                   | 0.9  | 2.6                      | 2.6  | 2                        | 0.6  |

#### 1.4.6 Social Support

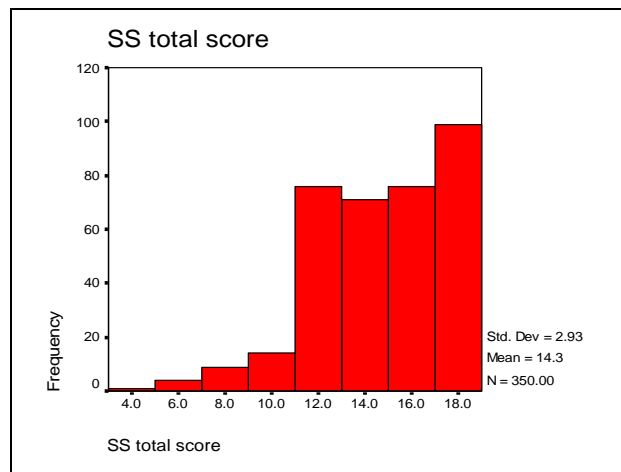
Social support is considered an important element for wellbeing and positive functioning in life. Respondents are asked how often specific types of support are available to them i.e. (1) Instrumental support: someone to take you to the doctor if needed it, someone to help you with your daily chores if you are sick, someone to turn to for suggestions about how to deal with a personal problem; and (2) Emotional support: someone who shows you love and affection, someone to have a good time with, someone to get together with for relaxation.

The total social support score ranged from a minimum 4 points through to a maximum 18 points. The average score across all respondents is 14.32, with a mode of 18. Of the 350 respondents, 29.7% or 104 persons reported less social support, 20.3% or 71 persons reported moderate social support, 31.7% or 111 persons reported relatively high social support, and 18.3% or 64 persons reported very high social support.

Table 1.4: Social support

|                         | Someone to take you to the doctor if you needed it |      | Someone to help you with daily chores if you were sick |      | Someone to turn to for suggestions about how to deal with a personal problem |      | Someone who shows you love and affection |      | Someone to have a good time with |      | Someone to get together with for relaxation |      |
|-------------------------|--|------|--|------|--|------|--|------|----------------------------------|------|---|------|
|                         | N  | %    | N  | %    | N  | %    | N  | %    | N                                | %    | N   | %    |
| None of the time        | 23   | 6.6  | 24   | 6.9  | 31   | 8.9  | 18                                       | 5.2  | 21                               | 6.0  | 29  | 8.3  |
| Some of the time        | 131  | 37.4 | 135  | 38.6 | 151  | 43.3 | 114                                      | 32.7 | 179                              | 51.1 | 188   | 53.7 |
| Most or all of the time | 191  | 54.6 | 184  | 52.6 | 159  | 45.6 | 213                                      | 61.0 | 147                              | 42.0 | 130   | 37.1 |
| Don't know              | 5  | 1.4  | 7  | 2.0  | 8  | 2.3  | 4  | 1.1  | 3                                | 0.9  | 3   | 0.9  |

Figure 1.5



### 1.4.7 Stress

Depending on the amount and frequency, stress and worry can gradually or eventually affect one's sense of wellbeing and mental peace. In asking respondents about the degree of stress in their lives in the past one year, 19.5% reported life as being very stressful, 42% reported life as being somewhat stressful, 22.4% reported life was not very stressful, 15.8% reported that life was not at all stressful in the past one year, and 0.3 responded 'don't know'.

The major source of stress for each individual varied, but the most common sources cited by 83.9% of the total sample (who responded that there was some degree of stress in their lives) were: concern about children's future, financial pressure, illness in the family, and work.

Table 1.5: Stress

|    | What is your main source of stress?               | No. of Respondents | Response frequency | Valid % |
|----|---|--------------------|--------------------|---------|
| 1  | Concerns about your children's future             | 287                | 185                | 64.5    |
| 2  | Financial pressures                               | 287                | 183                | 63.8    |
| 3  | Illness in family                                 | 286                | 179                | 62.6    |
| 4  | Work  | 286                | 176                | 61.5    |
| 5  | Threat to crops from wild animals                 | 282                | 139                | 49.3    |
| 6  | Death in family                                   | 286                | 115                | 40.2    |
| 7  | Too many errands                                  | 286                | 102                | 35.7    |
| 8  | Woola requirements                                | 283                | 110                | 38.9    |
| 9  | Threat to crops from natural calamities           | 282                | 87                 | 30.9    |
| 10 | Family relations                                  | 286                | 81                 | 28.3    |
| 11 | School work                                       | 276                | 73                 | 26.4    |
| 12 | Dispute with neighbours or others in your village | 285                | 58                 | 20.4    |
| 13 | Alcoholism of family member or household member   | 286                | 49                 | 17.1    |
| 14 | Drug abuse by family member or household member   | 286                | 13                 | 4.5     |
| 15 | Other major source of stress                      | 64                 | 10                 | 15.6    |

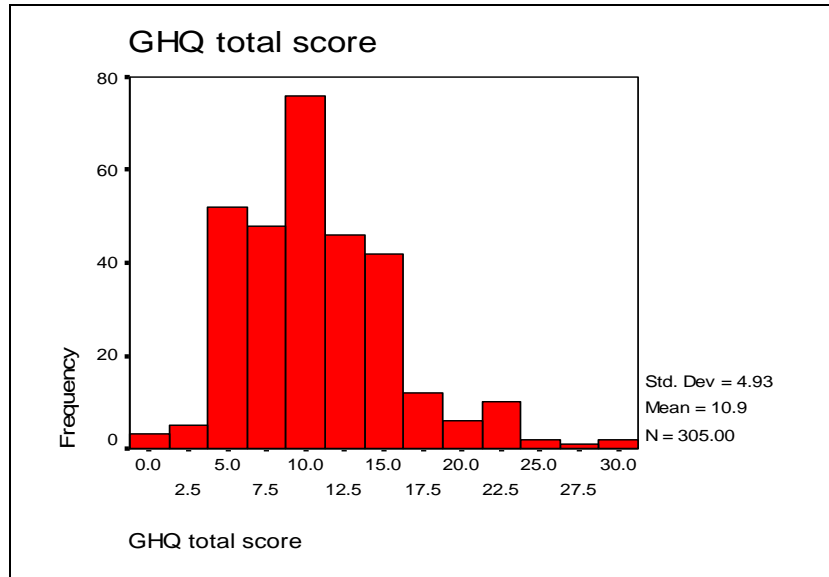
**1.4.8 General Health Questionnaire (GHQ)**

The twelve-item General Health Questionnaire (GHQ-12) is being used in this survey to get a general idea of the respondents' state of mental health (it is not intended as a diagnostic tool). Consisting of questions that assess mood symptoms, biological and social functions over the past one month, GHQ is calculated and interpreted here using the Likert scale with the lowest score at 0 and the highest possible score at 36. A lower score between the range of 0-15 indicates normal mental wellbeing, a score between 16-20 indicates some distress, and higher scores of 21 and above are symptomatic of severe problems and psychological distress.

The average GHQ score of the sample is 10.9, the mode is 6, and median is 10, indicating that on average most of the respondents fall within normal range.

Of the 305 respondents who responded to the GHQ items, 84.6% or 258 persons show no evidence of mental problems, 10.2% or 31 persons show some evidence of distress, and 5.2% or 15 persons show evidence of severe problems and psychological distress.

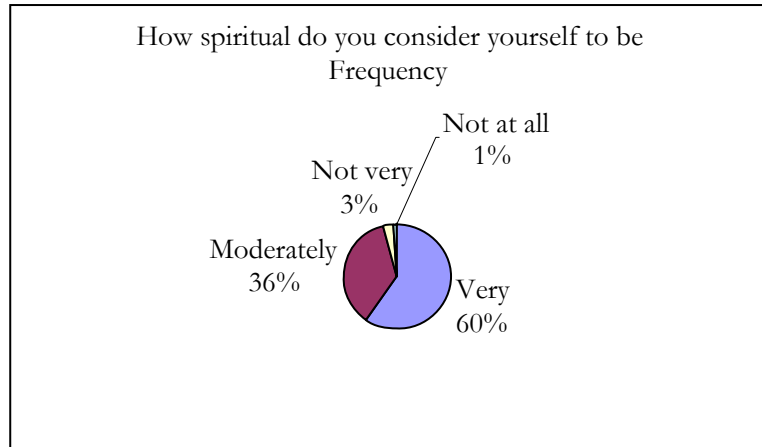
Figure 1.6



### 1.4.9 Spirituality

Although the concept of spirituality is constantly debated, the assumption here is that a spiritual person is more likely to have contemplated on issues beyond the materialistic aspects of life, and that he or she would therefore find this to be a contributing factor to general sense of wellbeing. When asked “How spiritual do you consider yourself to be”, 59.4% reported being “very spiritual, ” 36.3% reported being “moderately spiritual”, while 3.1% reported being “not very spiritual” and 1.1% being “not at all spiritual”.

Figure 1.7



The following table shows the responses to the questions asked in the survey on some of the practices of the Bhutanese people that may be understood as acts demonstrating spirituality.



Table 1.6

|    | Spirituality   | Freq | Valid% |
|----|--|------|--------|
| 1. | How spiritual do you consider yourself to be: (n = 350)                                  |      |        |
|    | Very   | 208  | 59.4   |
|    | Moderately   | 127  | 36.3   |
|    | Not very   | 11   | 3.1    |
|    | Not at all   | 4    | 1.1    |
| 2. | If you are a parent, do you discuss spiritual issues with your children: (n = 346)       |      |        |
|    | Daily  | 26   | 7.5    |
|    | Weekly   | 10   | 2.9    |
|    | Occasionally   | 184  | 53.2   |
|    | Not at all   | 55   | 15.9   |
|    | Not a parent   | 71   | 20.5   |
| 3. | Do you attempt to follow spiritual teachings and practices in your daily life: (n = 350) |      |        |
|    | All the time   | 110  | 31.4   |
|    | Most of the time   | 106  | 30.3   |
|    | Occasionally   | 124  | 35.4   |
|    | Not at all   | 10   | 2.9    |
| 4. | How important are your spiritual beliefs to the way you live your life: (n = 350)        |      |        |
|    | Very   | 277  | 79.1   |
|    | Moderately   | 67   | 19.1   |
|    | Not very   | 5    | 1.4    |
|    | Not at all   | 1    | 0.3    |
| 5. | Do you say/recite prayers: (n = 345)   |      |        |
|    | Daily  | 185  | 53.6   |
|    | Weekly   | 16   | 4.6    |
|    | Occasionally   | 107  | 31.0   |
|    | Not at all   | 37   | 10.7   |
| 6. | Do you practice meditation: (n = 350)  |      |        |
|    | Daily  | 23   | 6.6    |
|    | Weekly   | 4    | 1.1    |
|    | Occasionally   | 25   | 7.1    |
|    | Not at all   | 298  | 85.1   |
| 7. | Do you make offerings in the chhoshom: (n = 349)   |      |        |
|    | Daily  | 271  | 77.7   |
|    | Weekly   | 4    | 1.1    |

|     |  |     |      |
|-----|--|-----|------|
|     | Occasionally   | 61  | 17.5 |
|     | Not at all   | 13  | 3.7  |
| 8.  | Do you visit local temples and other places of spiritual significance in your community: (n = 348) |     |      |
|     | Daily  | 16  | 4.6  |
|     | Weekly   | 12  | 3.4  |
|     | Occasionally   | 309 | 88.8 |
|     | Not at all   | 11  | 3.2  |
| 9.  | Do you go on pilgrimages to place outside your community: (n = 348)                                |     |      |
|     | Monthly  | 3   | 0.9  |
|     | A few times a year   | 72  | 20.7 |
|     | Once a year  | 124 | 35.6 |
|     | Not at all   | 149 | 42.8 |
| 10. | Do you take part in spiritual discussions with other people: (n = 350)                             |     |      |
|     | Daily  | 11  | 3.1  |
|     | Weekly   | 6   | 1.7  |
|     | Occasionally   | 289 | 82.6 |
|     | Not at all   | 44  | 12.6 |
| 11. | Do you consider Karma in the course of your daily life: (n = 349)                                  |     |      |
|     | Always   | 185 | 53   |
|     | Sometimes  | 124 | 35.5 |
|     | Rarely   | 32  | 9.2  |
|     | Never  | 8   | 2.3  |

#### **1.4.10 Emotional experience**

Another constituent of general wellbeing is emotional wellness detected through the experience of positive and negative emotions over time. Respondents were asked how often they experienced various emotions over the course of the past few weeks up to the day they were interviewed.

Table 1.7

| How often do you experience: | Often (%) | Sometimes (%) | Never (%) | Total (%) |
|------------------------------|-----------|---------------|-----------|-----------|
| Calmness                     | 23.8      | 61.9          | 14.3      | 100.0     |
| Empathy/compassion           | 35.0      | 56.7          | 8.3       | 100.0     |
| Forgiveness                  | 23.3      | 65.2          | 11.5      | 100.0     |
| Contentment                  | 23.5      | 61.6          | 14.9      | 100.0     |
| Generosity                   | 30.4      | 63.3          | 6.3       | 100.0     |
| Anger                        | 13.5      | 51.6          | 35.0      | 100.0     |
| Envy                         | 7.4       | 41.0          | 51.6      | 100.0     |
| Guilt                        | 4.9       | 37.0          | 58.2      | 100.0     |
| Resentment                   | 4.6       | 43.0          | 52.4      | 100.0     |
| Selfishness                  | 2.3       | 24.1          | 73.6      | 100.0     |
| Jealousy                     | 1.4       | 15.2          | 83.4      | 100.0     |
| Pride                        | 5.7       | 28.7          | 65.6      | 100.0     |
| Disappointment               | 5.2       | 60.2          | 34.7      | 100.0     |
| Sadness                      | 7.7       | 53.9          | 38.4      | 100.0     |
| Frustration                  | 5.2       | 55.5          | 39.4      | 100.0     |

Whether some of these emotions listed are positive or negative would certainly vary according to cultural contexts elsewhere. However, within this survey context for Bhutan, calmness, empathy, forgiveness, contentment, and generosity are considered positive emotions; and anger, envy, guilt, resentment, selfishness, jealousy, pride, disappointment, sadness, and frustration are considered negative emotions as described in Buddhist philosophy. The general tendency amongst the survey respondents, as shown in Table 1.7, is that they report experiencing positive emotions more in the 'sometimes' and 'often' range, than 'never'; on the other hand, the experience of most negative emotions is reported to be 'often' only by a small percentage of the respondents, as most report experiencing negative emotions only sometimes and never.

The idea followed here is that the more often one experiences such positive emotions, the better it is for one's sense of wellbeing; reversely, the experience of negative emotions is considered harmful to one's sense of wellbeing if experienced frequently.

## **1.5 Cross-tabulation analysis of data on PWB/SWB**

This section of the report presents categorical cross-tabulation analysis of selected psychological wellbeing and subjective wellbeing items. The top three sources of happiness and wellbeing, level of happiness, quality of life, life satisfaction (with health, finances, occupation, family), self-assessed stress-level, total GHQ score, and self-assessed spirituality are all compared across selected demographic items; individual income level groupings are also compared for selected PWB/SWB measures.

### **1.5.1 Source of wellbeing and happiness**

The importance of financial security for one's sense of happiness and wellbeing is reported closely across gender: 68.50% of all men and 63.80% of all women. It is also cited fairly consistently by more than 60% of respondents across various age groupings, with the exception of only 53.80% of those aged 0-17 citing this source. Within marital status grouping, financial security was reported most by those who are married, followed by those never married and those divorced/separated/widowed. More than 70% of those with highest levels of education (11-12 grades and beyond) say this is important; over 61% of those with lower education levels and no formal education also cite this source. Over 71% of those within the middle and highest income category said this is important as compared to 56% of those within the lowest income category.

Good family life and wellbeing of family is also cited almost equally across gender with 42.40% of all men and 45.90% of all women saying this is important. It is reported most by those within the 18-30 year age grouping and least by those aged 60 and above. Within marital status category, this is reported most by those persons who have never been married, followed by married and divorced/separated/widowed persons. Within education background grouping, it is cited most by those with higher levels of education (11-12 grades and beyond).

The importance of good health is cited almost equally across gender: 42.40% of all men and 43.80% of all women. It is also cited in similar proportions across various age groupings. Within marital status grouping, good health is reported slightly more by those who are divorced/separated/widowed, followed by those who are married and those never married. Detailed cross-tabulation tables for sources of wellbeing and happiness are provided in Appendix II.

## 1.5.2 Happiness level

Table 1.8: Gender \* Happiness level

| Gender |                 | Happiness level |                  |                  | Total  |
|--------|-----------------|-----------------|------------------|------------------|--------|
|        |                 | lower happiness | middle happiness | higher happiness |        |
| female | Count           | 19              | 95               | 71               | 185    |
|        | % within gender | 10.3%           | 51.4%            | 38.4%            | 100.0% |
| male   | Count           | 15              | 75               | 75               | 165    |
|        | % within gender | 9.1%            | 45.5%            | 45.5%            | 100.0% |
| Total  | Count           | 34              | 170              | 146              | 350    |
|        | % within gender | 9.7%            | 48.6%            | 41.7%            | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 1.796(a) | 2  | .407                  |
| Likelihood Ratio             | 1.796    | 2  | .407                  |
| Linear-by-Linear Association | 1.439    | 1  | .230                  |
| N of Valid Cases             | 350      |    |                       |

0 cells (.0%) have expected count less than 5. The minimum expected count is 6.03

Men tended to score slightly higher on the happiness scale than women did, although the differences are not very wide as shown in Table 1.8.

Table 1.9: Age group \* Happiness level

| Age group |                    | Happiness level |                  |                  | Total  |
|-----------|--------------------|-----------------|------------------|------------------|--------|
|           |                    | lower happiness | middle happiness | higher happiness |        |
| 0-17      | Count              | 2               | 7                | 4                | 13     |
|           | % within age group | 15.4%           | 53.8%            | 30.8%            | 100.0% |
| 18-30     | Count              | 8               | 55               | 46               | 109    |
|           | % within age group | 7.3%            | 50.5%            | 42.2%            | 100.0% |
| 31-45     | Count              | 12              | 59               | 45               | 116    |
|           | % within age group | 10.3%           | 50.9%            | 38.8%            | 100.0% |
| 46-60     | Count              | 7               | 32               | 34               | 73     |
|           | % within age group | 9.6%            | 43.8%            | 46.6%            | 100.0% |

|       |                    |       |       |       |        |
|-------|--------------------|-------|-------|-------|--------|
| 60≤   | Count              | 5     | 16    | 16    | 37     |
|       | % within age group | 13.5% | 43.2% | 43.2% | 100.0% |
| Total | Count              | 34    | 169   | 145   | 348    |
|       | % within age group | 9.8%  | 48.6% | 41.7% | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 3.536(a) | 8  | .896                  |
| Likelihood Ratio             | 3.519    | 8  | .898                  |
| Linear-by-Linear Association | .064     | 1  | .801                  |
| N of Valid Cases             | 348      |    |                       |

*2 cells (13.3%) have expected count less than 5. The minimum expected count is 1.27*

Of the 56 persons scoring the highest level of happiness (10 on the 1-10 scale), most fall between the ages of 18-30 years (18 persons), followed by 16 persons in the age range of 46 to 60 years. On the whole, higher happiness level is scored mostly by those within the 46-60 years age group, and lowest happiness level is scored mostly by those within the 0 -17 and 60 years and more age group as shown in Table 1.9.

As the proportion of persons who are married are much larger than those that have never been married, are widowed, separated or divorced in this survey sample, it is not clear whether happiness level relates strongly with marital status. However, Table 1.10 indicates that higher levels of happiness are reported more by those who have never been married and those who are married, than those that are divorced/separated/widowed. The latter group also shows slightly more tendency than the others in reporting lower happiness levels.

Table 1.10: Marital status group \* Happiness level

| Marital status                     |                         | Happiness level |                  |                       | Total  |
|------------------------------------|-------------------------|-----------------|------------------|-----------------------|--------|
|                                    |                         | lower happiness | middle happiness | higher happiness      |        |
| never married                      | Count                   | 5               | 30               | 29                    | 64     |
|                                    | % within Marital status | 7.8%            | 46.9%            | 45.3%                 | 100.0% |
| married                            | Count                   | 25              | 123              | 105                   | 253    |
|                                    | % within Marital status | 9.9%            | 48.6%            | 41.5%                 | 100.0% |
| divorced/<br>separated/<br>widowed | Count                   | 4               | 17               | 12                    | 33     |
|                                    | % within Marital status | 12.1%           | 51.5%            | 36.4%                 | 100.0% |
| Total                              | Count                   | 34              | 170              | 146                   | 350    |
|                                    | % within Marital status | 9.7%            | 48.6%            | 41.7%                 | 100.0% |
|                                    |                         | Value           | df               | Asymp. Sig. (2-sided) |        |
| Pearson Chi-Square                 |                         | .967(a)         | 4                | .915                  |        |
| Likelihood Ratio                   |                         | .974            | 4                | .914                  |        |
| Linear-by-Linear Association       |                         | .949            | 1                | .330                  |        |
| No of Valid Cases                  |                         | 350             |                  |                       |        |

1 cell (11.1%) has expected count less than 5. The minimum expected count is 3.21

As shown in Table 1.11, higher happiness levels tended to be reported by those with some years of formal education, and lower happiness levels tended to be reported slightly more often by those with no formal education. However, differences are not very significant on average happiness levels.

Table 1.11: Education level \* Happiness level

| Education level              | Happiness level          |                  |                       | Total |
|------------------------------|--------------------------|------------------|-----------------------|-------|
|                              | lower happiness          | middle happiness | higher happiness      |       |
| No formal education          | Count<br>23              | 101              | 79                    | 203   |
|                              | % within Education level | 11.3%            | 49.8%                 | 38.9% |
| 1-6 grades                   | Count<br>5               | 23               | 21                    | 49    |
|                              | % within Education level | 10.2%            | 46.9%                 | 42.9% |
| 7-10 grades                  | Count<br>2               | 16               | 18                    | 36    |
|                              | % within Education level | 5.6%             | 44.4%                 | 50.0% |
| 11-12 grades                 | Count<br>0               | 5                | 5                     | 10    |
|                              | % within Education level | .0%              | 50.0%                 | 50.0% |
| Further education            | Count<br>4               | 25               | 22                    | 51    |
|                              | % within Education level | 7.8%             | 49.0%                 | 43.1% |
| Total                        | Count<br>34              | 170              | 145                   | 349   |
|                              | % within Education level | 9.7%             | 48.7%                 | 41.5% |
|                              | Value                    | df               | Asymp. Sig. (2-sided) |       |
| Pearson Chi-Square           | 3.743(a)                 | 8                | .880                  |       |
| Likelihood Ratio             | 4.787                    | 8                | .780                  |       |
| Linear-by-Linear Association | 1.602                    | 1                | .206                  |       |
| N of Valid Cases             | 349                      |                  |                       |       |

6 cells (40.0%) have expected count less than 5. The minimum expected count is .97



Table 1.12 shows that those who are unemployed and looking for work report between moderate to higher levels of happiness, but it should be noted that only four persons in the whole survey sample fall in this unemployed category. It is interesting to note that higher happiness levels are reported more by those in the “unemployed but not looking for a job” category (students, retirees, homemakers), than those who are employed (includes farming).

Table 1.12: Employment group \* Happiness level

| Employment group                     |                           | Happiness level |                  |                  | Total  |
|--------------------------------------|---------------------------|-----------------|------------------|------------------|--------|
|                                      |                           | lower happiness | middle happiness | higher happiness |        |
| Employed                             | Count                     | 26              | 123              | 90               | 239    |
|                                      | % within employment group | 10.9%           | 51.5%            | 37.7%            | 100.0% |
| Unemployed and looking for a job     | Count                     | 0               | 2                | 2                | 4      |
|                                      | % within employment group | .0%             | 50.0%            | 50.0%            | 100.0% |
| Unemployed but not looking for a job | Count                     | 8               | 44               | 53               | 105    |
|                                      | % within employment group | 7.6%            | 41.9%            | 50.5%            | 100.0% |
| Total                                | Count                     | 34              | 169              | 145              | 348    |
|                                      | % within employment group | 9.8%            | 48.6%            | 41.7%            | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 5.508(a) | 4  | .239                  |
| Likelihood Ratio             | 5.870    | 4  | .209                  |
| Linear-by-Linear Association | 4.658    | 1  | .031                  |
| N of Valid Cases             | 348      |    |                       |

3 cells (33.3%) have expected count less than 5. The minimum expected count is .39

Table 1.13: Household size \* Happiness level

| Household size |                         | Happiness level |                  |                  | Total  |
|----------------|-------------------------|-----------------|------------------|------------------|--------|
|                |                         | lower happiness | middle happiness | higher happiness |        |
| 1 - 4          | Count                   | 13              | 65               | 54               | 132    |
|                | % within HH size        | 9.8%            | 49.2%            | 40.9%            | 100.0% |
| 5 - 8          | Count                   | 19              | 84               | 80               | 183    |
|                | % within HH size        | 10.4%           | 45.9%            | 43.7%            | 100.0% |
| 10 - 11        | Count                   | 2               | 21               | 12               | 35     |
|                | % within HH size        | 5.7%            | 60.0%            | 34.3%            | 100.0% |
| Total          | Count                   | 34              | 170              | 146              | 350    |
|                | % within Household size | 9.7%            | 48.6%            | 41.7%            | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 2.544(a) | 4  | .637                  |
| Likelihood Ratio             | 2.610    | 4  | .625                  |
| Linear-by-Linear Association | .000     | 1  | .996                  |
| N of Valid Cases             | 350      |    |                       |

1 cell (11.1%) has expected count less than 5. The minimum expected count is 3.40.

Although persons coming from large households (10-11 members) report lowest levels of happiness less frequently than those coming from smaller households of 1-4 and 5-8 members, the latter two groups report higher levels of happiness more frequently as shown in Table 1.13.

Higher levels of happiness is reported most frequently by those in the higher income group (NU 100,000 and more); correspondingly, those in this group less frequently report lower levels of happiness than do people in the middle (NU 10,000-99,999) and lower (NU 0-9,999) income groups. Details are shown in Table 1.14.

Table 1.14: Total individual Income \* Happiness level

| Income level    |                              | Happiness level |                  |                       | Total  |
|-----------------|------------------------------|-----------------|------------------|-----------------------|--------|
|                 |                              | lower happiness | middle happiness | higher happiness      |        |
| 0-9,999 Nu      | Count                        | 11              | 56               | 49                    | 116    |
|                 | % within Income              | 9.5%            | 48.3%            | 42.2%                 | 100.0% |
| 10,000-99,999Nu | Count                        | 10              | 62               | 45                    | 117    |
|                 | % within Income              | 8.5%            | 53.0%            | 38.5%                 | 100.0% |
| 100,000≤Nu      | Count                        | 3               | 16               | 21                    | 40     |
|                 | % within Income              | 7.5%            | 40.0%            | 52.5%                 | 100.0% |
| Total           | Count                        | 24              | 134              | 115                   | 273    |
|                 | % within Income              | 8.8%            | 49.1%            | 42.1%                 | 100.0% |
|                 |                              | Value           | df               | Asymp. Sig. (2-sided) |        |
|                 | Pearson Chi-Square           | 2.594(a)        | 4                | .628                  |        |
|                 | Likelihood Ratio             | 2.569           | 4                | .632                  |        |
|                 | Linear-by-Linear Association | .528            | 1                | .467                  |        |
|                 | N of Valid Cases             | 273             |                  |                       |        |

1 cell (11.1%) has expected count less than 5. The minimum expected count is 3.52

1.5.2.1 *Quality of life (QOL)*

Table 1.15 shows that more often than women, men tended to say that their quality of life is very good/good, while more women than men tended to say that their quality of life is neither poor nor good, or poor.

Table 1.15: *Gender \* Quality of life*

| Gender                       |                 | Quality of life |      |                   |       |                       | Total  |
|------------------------------|-----------------|-----------------|------|-------------------|-------|-----------------------|--------|
|                              |                 | Very poor       | Poor | Neither poor/good | Good  | Very Good             |        |
| female                       | Count           | 0               | 15   | 72                | 79    | 19                    | 185    |
|                              | %               | .0%             | 8.1% | 38.9%             | 42.7% | 10.3%                 | 100.0% |
| within gender                |                 |                 |      |                   |       |                       |        |
| male                         | Count           | 1               | 7    | 38                | 100   | 19                    | 165    |
|                              | %               | .6%             | 4.2% | 23.0%             | 60.6% | 11.5%                 | 100.0% |
| within gender                |                 |                 |      |                   |       |                       |        |
| Total                        | Count           | 1               | 22   | 110               | 179   | 38                    | 350    |
|                              | % within gender | .3%             | 6.3% | 31.4%             | 51.1% | 10.9%                 | 100.0% |
|                              |                 |                 |      | Value             | df    | Asymp. Sig. (2-sided) |        |
| Pearson Chi-Square           |                 |                 |      | 15.791(a)         | 4     | .003                  |        |
| Likelihood Ratio             |                 |                 |      | 16.372            | 4     | .003                  |        |
| Linear-by-Linear Association |                 |                 |      | 7.904             | 1     | .005                  |        |
| N of Valid Cases             |                 | 350             |      |                   |       |                       |        |

2 cells (20.0%) have expected count less than 5. The minimum expected count is .47

Within various age groupings, more persons between 18-30 years and 31-45 years tended to report good/very good quality of life, while those who reported poor life quality mostly tended to be from the 60 years and above age group as shown in Table 1.16.

Table 1.16: Age group \* Quality of life

| Age group      |                    | Quality of life |       |                   |       |           | Total  |
|----------------|--------------------|-----------------|-------|-------------------|-------|-----------|--------|
|                |                    | Very poor       | Poor  | Neither poor/good | Good  | Very Good |        |
| 0-17<br>group  | Count              | 0               | 0     | 7                 | 5     | 1         | 13     |
|                | % within Age group | .0%             | .0%   | 53.8%             | 38.5% | 7.7%      | 100.0% |
| 18-30<br>group | Count              | 0               | 8     | 30                | 58    | 13        | 109    |
|                | % within Age group | .0%             | 7.3%  | 27.5%             | 53.2% | 11.9%     | 100.0% |
| 31-45<br>group | Count              | 1               | 3     | 35                | 67    | 10        | 116    |
|                | % within Age group | .9%             | 2.6%  | 30.2%             | 57.8% | 8.6%      | 100.0% |
| 46-60<br>group | Count              | 0               | 6     | 27                | 30    | 10        | 73     |
|                | % within Age group | .0%             | 8.2%  | 37.0%             | 41.1% | 13.7%     | 100.0% |
| 60≤<br>group   | Count              | 0               | 5     | 11                | 17    | 4         | 37     |
|                | % within Age group | .0%             | 13.5% | 29.7%             | 45.9% | 10.8%     | 100.0% |
| Total<br>group | Count              | 1               | 22    | 110               | 177   | 38        | 348    |
|                | % within Age group | .3%             | 6.3%  | 31.6%             | 50.9% | 10.9%     | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 16.842(a) | 16 | .396                  |
| Likelihood Ratio             | 17.552    | 16 | .351                  |
| Linear-by-Linear Association | .860      | 1  | .354                  |
| N of Valid Cases             | 348       |    |                       |

11 cells (44.0%) have expected count less than 5. The minimum expected count is .04

Within the marital status grouping, those who reported poor life quality tended to be more from the divorced/separated/widowed category. Very good life quality is reported most often by those in the married category as shown in Table 1.17.

Table 1.17: Marital status \* Quality of life

| Marital status                 |       | Quality of life |       |                   |       |           | Total  |
|--------------------------------|-------|-----------------|-------|-------------------|-------|-----------|--------|
|                                |       | Very poor       | Poor  | Neither poor/good | Good  | Very Good |        |
| never married                  | Count | 0               | 3     | 20                | 37    | 4         | 64     |
| % within Marital status        |       | .0%             | 4.7%  | 31.3%             | 57.8% | 6.3%      | 100.0% |
| married                        | Count | 1               | 15    | 80                | 125   | 32        | 253    |
| % within Marital status        |       | .4%             | 5.9%  | 31.6%             | 49.4% | 12.6%     | 100.0% |
| divorced/separated/<br>widowed | Count | 0               | 4     | 10                | 17    | 2         | 33     |
| % within Marital status        |       | .0%             | 12.1% | 30.3%             | 51.5% | 6.1%      | 100.0% |
| Total                          | Count | 1               | 22    | 110               | 179   | 38        | 350    |
| % within Marital status        |       | .3%             | 6.3%  | 31.4%             | 51.1% | 10.9%     | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 5.904(a) | 8  | .658                  |
| Likelihood Ratio             | 6.114    | 8  | .634                  |
| Linear-by-Linear Association | .373     | 1  | .541                  |
| N of Valid Cases             | 350      |    |                       |

6 cells (40.0%) have expected count less than 5. The minimum expected count is .09

Persons with some level of formal education generally reported better quality of life than those without formal education as Table 1.18 shows. Good life quality is reported mostly by those with education level of 11-12 grades and above. Poor life quality is reported most by those with no formal education.

Table 1.18: Education level \* Quality of life

| Education level     |           | Quality of life |      |                    |       |           | Total  |
|---------------------|-----------|-----------------|------|--------------------|-------|-----------|--------|
|                     |           | Very poor       | Poor | Neither poor /good | Good  | Very Good |        |
| No formal education | Count     | 1               | 19   | 67                 | 93    | 23        | 203    |
| % within level      | Education | .5%             | 9.4% | 33.0%              | 45.8% | 11.3%     | 100.0% |
| 1-6 grade           | Count     | 0               | 1    | 22                 | 21    | 5         | 49     |
| % within level      | Education | .0%             | 2.0% | 44.9%              | 42.9% | 10.2%     | 100.0% |
| 7-10 grade          | Count     | 0               | 1    | 12                 | 19    | 4         | 36     |
| % within level      | Education | .0%             | 2.8% | 33.3%              | 52.8% | 11.1%     | 100.0% |
| 11-12 grade         | Count     | 0               | 0    | 2                  | 7     | 1         | 10     |
| % within level      | Education | .0%             | .0%  | 20.0%              | 70.0% | 10.0%     | 100.0% |
| Further education   | Count     | 0               | 1    | 7                  | 39    | 4         | 51     |
| % within level      | Education | .0%             | 2.0% | 13.7%              | 76.5% | 7.8%      | 100.0% |
| Total               | Count     | 1               | 22   | 110                | 179   | 37        | 349    |
| % within level      | Education | .3%             | 6.3% | 31.5%              | 51.3% | 10.6%     | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 25.869(a) | 16 | .056                  |
| Likelihood Ratio             | 28.072    | 16 | .031                  |
| Linear-by-Linear Association | 8.392     | 1  | .004                  |
| N of Valid Cases             | 349       |    |                       |

12 cells (48.0%) have expected count less than 5. The minimum expected count is .03

Good life quality is reported most often by those who are unemployed but not look for a job (retired, students, homemakers), followed by those who are employed. Those who are unemployed and looking for a job equally report poor, neither poor/good, good and very good life quality; it should

be noted however, that there are only four persons in the sample that fall in this category. Details are given in Table 1.19.

Table 1.19: *Employment group \* Quality of life*

| Employment group                       |        | Quality of life |       |                       |       |           | Total  |
|--|--------|-----------------|-------|-----------------------|-------|-----------|--------|
|  |        | Very poor       | Poor  | Neither poor/<br>good | Good  | Very Good |        |
| Employed %                             | Count  | 1               | 16    | 83                    | 117   | 22        | 239    |
|  | within | .4%             | 6.7%  | 34.7%                 | 49.0% | 9.2%      | 100.0% |
| Unemployed and looking for a job %     | Count  | 0               | 1     | 1                     | 1     | 1         | 4      |
|  | within | .0%             | 25.0% | 25.0%                 | 25.0% | 25.0%     | 100.0% |
| Unemployed but not looking for a job % | Count  | 0               | 5     | 26                    | 60    | 14        | 105    |
|  | within | .0%             | 4.8%  | 24.8%                 | 57.1% | 13.3%     | 100.0% |
| Total employment group %               | Count  | 1               | 22    | 110                   | 178   | 37        | 348    |
|  | within | .3%             | 6.3%  | 31.6%                 | 51.1% | 10.6%     | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 8.921(a) | 8  | .349                  |
| Likelihood Ratio             | 8.262    | 8  | .408                  |
| Linear-by-Linear Association | 4.524    | 1  | .033                  |
| N of Valid Cases             | 348      |    |                       |

7 cells (46.7%) have expected count less than 5. The minimum expected count is .01

Very good quality of life is reported mostly by those in the lowest income grouping (0-9,999 NU), but good life quality is reported most significantly and frequently by those in the highest income group (100,000 and more NU). More details are given in Table 1.20.

Table 1.20: *Total individual Income \* Quality of life*

Quality of life Total



| Individual Income |                 | Very poor | Poor | Neither poor /good | Good  | Very Good |        |
|-------------------|-----------------|-----------|------|--------------------|-------|-----------|--------|
| 0-9,999 Nu        | Count           | 1         | 8    | 33                 | 58    | 16        | 116    |
|                   | % within Income | .9%       | 6.9% | 28.4%              | 50.0% | 13.8%     | 100.0% |
| 10,000-99,999Nu   | Count           | 0         | 5    | 41                 | 60    | 11        | 117    |
|                   | % within Income | .0%       | 4.3% | 35.0%              | 51.3% | 9.4%      | 100.0% |
| 100,000≤Nu        | Count           | 0         | 0    | 8                  | 30    | 2         | 40     |
|                   | % within Income | .0%       | .0%  | 20.0%              | 75.0% | 5.0%      | 100.0% |
| Total             | Count           | 1         | 13   | 82                 | 148   | 29        | 273    |
|                   | % within Income | .4%       | 4.8% | 30.0%              | 54.2% | 10.6%     | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 13.048(a) | 8  | .110                  |
| Likelihood Ratio             | 15.184    | 8  | .056                  |
| Linear-by-Linear Association | .704      | 1  | .401                  |
| N of Valid Cases             | 273       |    |                       |

5 cells (33.3%) have expected count less than 5. The minimum expected count is .15

### 1.5.2.2 Life enjoyment

As table 1.21 shows, men on whole tended report more life enjoyment than women did.

Table 1.21: Gender \* Enjoyment of life

| Gender | Enjoyment of life |          |             |                   | Total |        |
|--------|-------------------|----------|-------------|-------------------|-------|--------|
|        | Not at all        | A little | Quite a lot | An extreme amount |       |        |
| female | Count             | 3        | 46          | 117               | 19    | 185    |
|        | % within gender   | 1.6%     | 24.9%       | 63.2%             | 10.3% | 100.0% |
| male   | Count             | 2        | 24          | 116               | 23    | 165    |
|        | % within gender   | 1.2%     | 14.5%       | 70.3%             | 13.9% | 100.0% |
| Total  | Count             | 5        | 70          | 233               | 42    | 350    |
|        | % within gender   | 1.4%     | 20.0%       | 66.6%             | 12.0% | 100.0% |

|                              | Value    | df | Asymp. Sig. (2-sided) |
|------------------------------|----------|----|-----------------------|
| Pearson Chi-Square           | 6.377(a) | 3  | .095                  |
| Likelihood Ratio             | 6.477    | 3  | .091                  |
| Linear-by-Linear Association | 5.219    | 1  | .022                  |
| N of Valid Cases             | 350      |    |                       |

2 cells (25.0%) have expected count less than 5. The minimum expected count is 2.36

Table 1.22 shows that amongst the various ages, those who are 18-30 years of age mostly reported that they enjoy life quite a lot.

Lower life enjoyment is reported more amongst those who are divorced/separated/separated than amongst those in other marital status category. Correspondingly, those never married and those married report higher life enjoyment as indicated in Table 1.23.

Table 1.22: Age group \* Enjoyment of life

| Age group | Enjoyment of life  |          |             |                | Total |        |
|-----------|--------------------|----------|-------------|----------------|-------|--------|
|           | Not at all         | A little | Quite a lot | extreme amount |       |        |
| 0-17      | Count              | 0        | 4           | 9              | 0     | 13     |
|           | % within age group | .0%      | 30.8%       | 69.2%          | .0%   | 100.0% |
| 18-30     | Count              | 2        | 21          | 78             | 8     | 109    |
|           | % within age group | 1.8%     | 19.3%       | 71.6%          | 7.3%  | 100.0% |
| 31-45     | Count              | 2        | 25          | 72             | 17    | 116    |
|           | % within age group | 1.7%     | 21.6%       | 62.1%          | 14.7% | 100.0% |
| 46-60     | Count              | 1        | 11          | 48             | 13    | 73     |
|           | % within age group | 1.4%     | 15.1%       | 65.8%          | 17.8% | 100.0% |
| 60≤       | Count              | 0        | 9           | 24             | 4     | 37     |
|           | % within age group | .0%      | 24.3%       | 64.9%          | 10.8% | 100.0% |
| Total     | Count              | 5        | 70          | 231            | 42    | 348    |
|           | % within age group | 1.4%     | 20.1%       | 66.4%          | 12.1% | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 10.121(a) | 12 | .605                  |
| Likelihood Ratio             | 12.388    | 12 | .415                  |
| Linear-by-Linear Association | 1.892     | 1  | .169                  |
| N of Valid Cases             | 348       |    |                       |

8 cells (40.0%) have expected count less than 5. The minimum expected count is .19

Table 1.23: Marital status \* Enjoyment of life

Enjoyment of life Total

| Marital status             | Not at all | A little | Quite a lot | extreme amount |  |        |
|----------------------------|------------|----------|-------------|----------------|--|--------|
| never married              | Count 1    | 11       | 50          | 2              |  | 64     |
| % within marital status    | 1.6%       | 17.2%    | 78.1%       | 3.1%           |  | 100.0% |
| married                    | Count 2    | 49       | 168         | 34             |  | 253    |
| % within marital status    | .8%        | 19.4%    | 66.4%       | 13.4%          |  | 100.0% |
| divorcee/separated/widowed | Count 2    | 10       | 15          | 6              |  | 33     |
| % within marital status    | 6.1%       | 30.3%    | 45.5%       | 18.2%          |  | 100.0% |
| Total                      | Count 5    | 70       | 233         | 42             |  | 350    |
| % within marital status    | 1.4%       | 20.0%    | 66.6%       | 12.0%          |  | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 16.924(a) | 6  | .010                  |
| Likelihood Ratio             | 16.431    | 6  | .012                  |
| Linear-by-Linear Association | .004      | 1  | .950                  |
| N of Valid Cases             | 350       |    |                       |

*4 cells (33.3%) have expected count less than 5. The minimum expected count is .47*

Table 1.24 shows that on the whole, those with lower education levels more often reported enjoying life an extreme amount, although significantly more of those with higher education levels tended to report enjoying life quite a lot.

Table 1.24: Education level \* Enjoyment of life

| Education level          | Enjoyment of life |          |             |                | Total |        |
|--------------------------|-------------------|----------|-------------|----------------|-------|--------|
|                          | Not at all        | A little | Quite a lot | extreme amount |       |        |
| No formal education      | Count             | 4        | 47          | 121            | 31    | 203    |
| % within education level |                   | 2.0%     | 23.2%       | 59.6%          | 15.3% | 100.0% |
| 1-6 grades               | Count             | 0        | 7           | 34             | 8     | 49     |
| % within education level |                   | .0%      | 14.3%       | 69.4%          | 16.3% | 100.0% |
| 7-10 grades              | Count             | 0        | 7           | 28             | 1     | 36     |
| % within education level |                   | .0%      | 19.4%       | 77.8%          | 2.8%  | 100.0% |
| 11-12 grades             | Count             | 0        | 0           | 10             | 0     | 10     |
| % within education level |                   | .0%      | .0%         | 100.0%         | .0%   | 100.0% |
| Further education        | Count             | 1        | 9           | 39             | 2     | 51     |
| % within education level |                   | 2.0%     | 17.6%       | 76.5%          | 3.9%  | 100.0% |
| Total                    | Count             | 5        | 70          | 232            | 42    | 349    |
| % within education level |                   | 1.4%     | 20.1%       | 66.5%          | 12.0% | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 19.539(a) | 12 | .076                  |
| Likelihood Ratio             | 25.812    | 12 | .011                  |
| Linear-by-Linear Association | .257      | 1  | .612                  |
| N of Valid Cases             | 349       |    |                       |

8 cells (40.0%) have expected count less than 5. The minimum expected count is .14

Table 1.25 shows that ‘an extreme amount’ of life enjoyment is reported mostly by those who are employed and by those unemployed but not looking for work (retired, students, homemakers). Enjoying life ‘quite a lot’ is reported in similar proportions across all employment groups.

Higher levels of life enjoyment is reported mostly by those in the highest income grouping, while lower levels of life enjoyment is reported mostly by those in the lowest income grouping as shown in Table 1.26.

Table 1.25: Employment group \* Enjoyment of life

| Employment group                     | Enjoyment of life |          |                       |                | Total |        |
|--------------------------------------|-------------------|----------|-----------------------|----------------|-------|--------|
|                                      | Not at all        | A little | Quite a lot           | extreme amount |       |        |
| Employed                             | Count             | 5        | 53                    | 151            | 30    | 239    |
| % within group                       | employment        | 2.1%     | 22.2%                 | 63.2%          | 12.6% | 100.0% |
| Age group                            | Count             | 0        | 1                     | 3              | 0     | 4      |
| % within group                       | employment        | .0%      | 25.0%                 | 75.0%          | .0%   | 100.0% |
| Unemployed but not looking for a job | Count             | 0        | 16                    | 78             | 11    | 105    |
| % within group                       | employment        | .0%      | 15.2%                 | 74.3%          | 10.5% | 100.0% |
| Total                                | Count             | 5        | 70                    | 232            | 41    | 348    |
| % within group                       | employment        | 1.4%     | 20.1%                 | 66.7%          | 11.8% | 100.0% |
|                                      | Value             | df       | Asymp. Sig. (2-sided) |                |       |        |
| Pearson Chi-Square                   | 6.209(a)          | 6        | .400                  |                |       |        |
| Likelihood Ratio                     | 8.229             | 6        | .222                  |                |       |        |
| Linear-by-Linear Association         | 1.580             | 1        | .209                  |                |       |        |
| N of Valid Cases                     | 348               |          |                       |                |       |        |

6 cells (50.0%) have expected count less than 5. The minimum expected count is .06

Table 1.26: Total individual Income \* Enjoyment of life

| Income          |                 | Enjoyment of life |                              |             |                       | Total  |
|-----------------|-----------------|-------------------|------------------------------|-------------|-----------------------|--------|
|                 |                 | Not all           | at A little                  | Quite a lot | An extreme amount     |        |
| 0-9,999 Nu      | Count           | 2                 | 28                           | 74          | 12                    | 116    |
|                 | % within Income | 1.7%              | 24.1%                        | 63.8%       | 10.3%                 | 100.0% |
| 10,000-99,999Nu | Count           | 2                 | 19                           | 78          | 18                    | 117    |
|                 | % within Income | 1.7%              | 16.2%                        | 66.7%       | 15.4%                 | 100.0% |
| 100,000≤Nu      | Count           | 0                 | 5                            | 29          | 6                     | 40     |
|                 | % within Income | .0%               | 12.5%                        | 72.5%       | 15.0%                 | 100.0% |
| Total           | Count           | 4                 | 52                           | 181         | 36                    | 273    |
|                 | % within Income | 1.5%              | 19.0%                        | 66.3%       | 13.2%                 | 100.0% |
|                 |                 |                   | Value                        | df          | Asymp. Sig. (2-sided) |        |
|                 |                 |                   | Pearson Chi-Square           | 5.233(a)    | 6                     | .514   |
|                 |                 |                   | Likelihood Ratio             | 5.866       | 6                     | .438   |
|                 |                 |                   | Linear-by-Linear Association | 4.059       | 1                     | .044   |
|                 |                 |                   | N of Valid Cases             | 273         |                       |        |

3 cells (25.0%) have expected count less than 5. The minimum expected count is .59

### 1.5.3 Life satisfaction

A total of 85 persons reported complete satisfaction across all four life domains i.e. health, financial security, familial relations and major occupations (scoring a maximum possible 16 points). Of these, 47.7% are female and the rest are male. Most fall within the age cohorts of 18-30 and 31-45 years. On the total life satisfaction score, majority of the respondents within the divorced/separated/widowed category (66.6%) scored high between 14-16 points. Similarly, 62.2% of married respondents scored between this range, and 68.7% of respondents who have never been married scored in this range.

In individual life domains, a total of 196 persons reported complete satisfaction with their health: 53.6% are men and 46.4% are women. Of the 19 persons not very satisfied with their health, 78.9% are women and 21.1% are men. Of the 194 persons reporting high satisfaction with their health, 36.6% are within the 18-30 age group, 33% within the 31-45 age group, and 16.5% within the 46-60 age group.

Of the 138 reporting complete satisfaction with the security of their finances, 54.3% are women and 45.7% are men; they mostly come from the age cohorts of 18-30 and 31-45 years. However, most of the respondents who are not very satisfied with the security of their finances also come from the 18-30 and 31-45 year age grouping. Of the 19 persons who expressed total dissatisfaction with their finances, 31.6% are women and 68.4% are men.

Close to 86% of the respondents report complete satisfaction with their familial relations. Of these, 53.1% are female and 46.9% are men, and they are mostly from the age cohorts of 18-30 and 31-45 years. Of the 8 persons not very satisfied with their familial relations, 75% are female, 25% are male. Of the 220 persons reporting complete satisfaction with their major occupations, most are female and most come from the 18-30 and 31-45 year age cohort. Of the 21 persons not very satisfied with their major occupation, most are male.

Within marital status grouping, most respondents reported being satisfied or fairly satisfied with their health, financial security, major life occupations, and familial relationships. Detailed cross tabulation tables on satisfaction with each area of life (health, finances, familial relationships and major occupations) are given in Appendix III (a).

#### **1.5.4 Stress**

On the whole, it appears that women self-reported higher levels of stress than men did. Of the 68 persons describing life as very stressful, 66.2% are female and 33.8% are male. Of the 146 persons describing life as somewhat stressful, 54.1% are female and 45.9% are male. Even within gender grouping, women tended to show higher incidence of stress as shown in Table 1.27.

Table 1.27: Gender \* Stress level

| Stress level         |                       |      | Gender |        | Total  |
|----------------------|-----------------------|------|--------|--------|--------|
|                      |                       |      | Male   | Female |        |
| Very Stressful       | Count                 |      | 23     | 45     | 68     |
|                      | % within stress level |      | 33.8%  | 66.2%  | 100.0% |
|                      | % within Gender       |      | 13.9%  | 24.6%  | 19.5%  |
| Somewhat Stressful   | Count                 |      | 67     | 79     | 146    |
|                      | % within stress level |      | 45.9%  | 54.1%  | 100.0% |
|                      | % within Gender       |      | 40.6%  | 43.2%  | 42.0%  |
| Not Stressful        | Count                 | Very | 48     | 30     | 78     |
|                      | % within stress level |      | 61.5%  | 38.5%  | 100.0% |
|                      | % within Gender       |      | 29.1%  | 16.4%  | 22.4%  |
| Not At All Stressful | Count                 |      | 27     | 28     | 55     |
|                      | % within stress level |      | 49.1%  | 50.9%  | 100.0% |
|                      | % within Gender       |      | 16.4%  | 15.3%  | 15.8%  |
| Don't Know           | Count                 |      | 0      | 1      | 1      |
|                      | % within stress level |      | .0%    | 100.0% | 100.0% |
|                      | % within Gender       |      | .0%    | .5%    | .3%    |
| Total                | Count                 |      | 165    | 183    | 348    |
|                      | % within stress level |      | 47.4%  | 52.6%  | 100.0% |
|                      | % within Gender       |      | 100.0% | 100.0% | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 12.378(a) | 4  | .015                  |
| Likelihood Ratio             | 12.899    | 4  | .012                  |
| Linear-by-Linear Association | 4.162     | 1  | .041                  |
| N of Valid Cases             | 348       |    |                       |

2 cells (20.0%) have expected count less than 5. The minimum expected count is .47

Within age categories, those in the 0-17 year age group mostly report that life is very stressful, although this same age cohort also reports no stress more frequently than other age groups. A somewhat stressful life is reported consistently across all other age groups as shown in Table 1.28.



Table 1.28: Age group \* stress level

|                       |       | Age group |        |        |        |        | Total  |
|-----------------------|-------|-----------|--------|--------|--------|--------|--------|
|                       |       | 0-17      | 18-30  | 31-45  | 46-60  | 60≤    |        |
| Stress level          |       |           |        |        |        |        |        |
| Very Stressful        | Count | 4         | 25     | 21     | 12     | 6      | 68     |
| % within stress level |       | 5.9%      | 36.8%  | 30.9%  | 17.6%  | 8.8%   | 100.0% |
| % within age group    |       | 30.8%     | 23.1%  | 18.3%  | 16.4%  | 16.2%  | 19.7%  |
| Somewhat Stressful    | Count | 3         | 47     | 49     | 30     | 15     | 144    |
| % within stress level |       | 2.1%      | 32.6%  | 34.0%  | 20.8%  | 10.4%  | 100.0% |
| % within age group    |       | 23.1%     | 43.5%  | 42.6%  | 41.1%  | 40.5%  | 41.6%  |
| Not Very Stressful    | Count | 2         | 24     | 27     | 17     | 8      | 78     |
| % within stress level |       | 2.6%      | 30.8%  | 34.6%  | 21.8%  | 10.3%  | 100.0% |
| % within age group    |       | 15.4%     | 22.2%  | 23.5%  | 23.3%  | 21.6%  | 22.5%  |
| Not At All Stressful  | Count | 4         | 12     | 17     | 14     | 8      | 55     |
| % within stress level |       | 7.3%      | 21.8%  | 30.9%  | 25.5%  | 14.5%  | 100.0% |
| % within age group    |       | 30.8%     | 11.1%  | 14.8%  | 19.2%  | 21.6%  | 15.9%  |
| Don't Know            | Count | 0         | 0      | 1      | 0      | 0      | 1      |
| % within stress level |       | .0%       | .0%    | 100.0% | .0%    | .0%    | 100.0% |
| % within age group    |       | .0%       | .0%    | .9%    | .0%    | .0%    | .3%    |
| Total                 | Count | 13        | 108    | 115    | 73     | 37     | 346    |
| % within stress level |       | 3.8%      | 31.2%  | 33.2%  | 21.1%  | 10.7%  | 100.0% |
| % within age group    |       | 100.0%    | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 10.516(a) | 16 | .838                  |
| Likelihood Ratio             | 10.522    | 16 | .838                  |
| Linear-by-Linear Association | 2.181     | 1  | .140                  |
| N of Valid Cases             | 346       |    |                       |

8 cells (32.0%) have expected count less than 5. The minimum expected count is .04

As might be commonly expected, more respondents within the divorced/separated/widowed category report highest level of stress, although the next level of stress is reported much more by those in the married and never married category. Table 1.29 shows more details.

Table 1.29: Marital status \* stress level

| Stress level         | Marital status          |         |                                    | Total |        |
|----------------------|-------------------------|---------|------------------------------------|-------|--------|
|                      | never married           | married | divorced/<br>separated/<br>widowed |       |        |
| Very Stressful       | Count                   | 13      | 42                                 | 13    | 68     |
|                      | % within stress level   | 19.1%   | 61.8%                              | 19.1% | 100.0% |
|                      | % within marital status | 20.3%   | 16.7%                              | 39.4% | 19.5%  |
| Somewhat Stressful   | Count                   | 27      | 110                                | 9     | 146    |
|                      | % within stress level   | 18.5%   | 75.3%                              | 6.2%  | 100.0% |
|                      | % within marital status | 42.2%   | 43.8%                              | 27.3% | 42.0%  |
| Not Very Stressful   | Count                   | 16      | 57                                 | 5     | 78     |
|                      | % within stress level   | 20.5%   | 73.1%                              | 6.4%  | 100.0% |
|                      | % within marital status | 25.0%   | 22.7%                              | 15.2% | 22.4%  |
| Not At All Stressful | Count                   | 8       | 41                                 | 6     | 55     |
|                      | % within stress level   | 14.5%   | 74.5%                              | 10.9% | 100.0% |
|                      | % within marital status | 12.5%   | 16.3%                              | 18.2% | 15.8%  |
| Don't Know           | Count                   | 0       | 1                                  | 0     | 1      |
|                      | % within stress level   | .0%     | 100.0%                             | .0%   | 100.0% |
|                      | % within marital status | .0%     | .4%                                | .0%   | .3%    |
| group                |                         |         |                                    |       |        |
| Total                | Count                   | 64      | 251                                | 33    | 348    |
|                      | % within stress level   | 18.4%   | 72.1%                              | 9.5%  | 100.0% |

% within marital status 100.0% 100.0% 100.0% 100.0%  
group

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 11.563(a) | 8  | .172                  |
| Likelihood Ratio             | 10.712    | 8  | .219                  |
| Linear-by-Linear Association | .147      | 1  | .701                  |
| N of Valid Cases             | 348       |    |                       |

3 cells (20.0%) have expected count less than 5. The minimum expected count is .09

Within income categories, higher stress levels are reported more by those in the lowest income group who say that life in the past one year has been very stressful. Life is reported as being somewhat stressful mostly by those in the middle income category followed by those in the lowest income category. Of those who say that life has not been very stressful, majority come from the highest income grouping. Details are given in Table 1.30.

Table 1.30: Total individual income \* stress level

| Stress level          | Total individual Income | Total      |                  |            |        |
|-----------------------|-------------------------|------------|------------------|------------|--------|
|                       |                         | 0-9,999 Nu | 10,000-99,999 Nu | 100,000≤Nu |        |
| Very Stressful        | Count                   | 27         | 20               | 6          | 53     |
| % within stress level |                         | 50.9%      | 37.7%            | 11.3%      | 100.0% |
| % within income       | Count                   | 48         | 54               | 11         | 113    |
| Somewhat Stressful    |                         |            |                  |            |        |
| % within stress level |                         | 42.5%      | 47.8%            | 9.7%       | 100.0% |
| % within income       |                         | 41.7%      | 46.2%            | 27.5%      | 41.5%  |
| Not Very Stressful    | Count                   | 17         | 24               | 17         | 58     |
| % within stress level |                         | 29.3%      | 41.4%            | 29.3%      | 100.0% |
| % within income       |                         | 14.8%      | 20.5%            | 42.5%      | 21.3%  |
| Not At All Stressful  | Count                   | 22         | 19               | 6          | 47     |
| % within stress level |                         | 46.8%      | 40.4%            | 12.8%      | 100.0% |
| % within income       | % within income         | 19.1%      | 16.2%            | 15.0%      | 17.3%  |
| Don't                 | Count                   | 1          | 0                | 0          | 1      |

|                       |        |        |        |        |
|-----------------------|--------|--------|--------|--------|
| Know                  |        |        |        |        |
| % within stress level | 100.0% | .0%    | .0%    | 100.0% |
| % within income       | .9%    | .0%    | .0%    | .4%    |
| Total                 | Count  | 115    | 117    | 40     |
| % within stress level | 42.3%  | 43.0%  | 14.7%  | 100.0% |
| % within income       | 100.0% | 100.0% | 100.0% | 100.0% |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 16.738(a) | 8  | .033                  |
| Likelihood Ratio             | 15.703    | 8  | .047                  |
| Linear-by-Linear Association | .979      | 1  | .322                  |
| N of Valid Cases             | 272       |    |                       |

3 cells (20.0%) have expected count less than 5. The minimum expected count is .15

### 1.5.5 GHQ-12 scores

On the whole the GHQ scores show that most of the respondents are well within the normal range of 0-15 points, with only a few cases scoring 16-20 points indicating distress, and 20 or more points indicating severe problems and psychological distress.

According to table 1.31, 8.7% of all men show evidence of distress, and 4.7% show evidence of some severe problems and psychological distress. Comparatively, 11.50% of all women show some signs of distress and 5.8% show signs of severe problems and psychological distress.

Table 1.31: Gender \* GHQ-12 total score

| Gender |                 | GHQ-12 total score |       |      | Total  |
|--------|-----------------|--------------------|-------|------|--------|
|        |                 | 0-15               | 16-20 | 21≤  |        |
| Male   | Count           | 129                | 13    | 7    | 149    |
|        | % within Gender | 86.6%              | 8.7%  | 4.7% | 100.0% |
|        | % of Total      | 42.3%              | 4.3%  | 2.3% | 48.9%  |
| Female | Count           | 129                | 18    | 9    | 156    |
|        | % within Gender | 82.7%              | 11.5% | 5.8% | 100.0% |
|        | % of Total      | 42.3%              | 5.9%  | 3.0% | 51.1%  |
| Total  | Count           | 258                | 31    | 16   | 305    |
|        | % within Gender | 84.6%              | 10.2% | 5.2% | 100.0% |
|        | % of Total      | 84.6%              | 10.2% | 5.2% | 100.0% |

|                              | Value   | df | Asymp. Sig. (2-sided) |
|------------------------------|---------|----|-----------------------|
| Pearson Chi-Square           | .896(a) | 2  | .639                  |
| Likelihood Ratio             | .900    | 2  | .638                  |
| Linear-by-Linear Association | .694    | 1  | .405                  |
| N of Valid Cases             | 305     |    |                       |

0 cells (.0%) have expected count less than 5. The minimum expected count is 7.82.

According to Table 1.32, respondents showing some signs of distress (16-20 points) mostly come from the age cohorts of 60 years and above, followed by those in the 18-30 and 31-45 age cohorts. Those showing signs of severe problems and psychological distress mostly come from the 60 years and above age group followed by those in the 0-17 year group. In the case of older people, however, we need to consider the age factor in the experience of certain things like forgetfulness and tiredness more frequently than others, leading them to score worse on the GHQ-12.

Table 1.32: Age group \* GHQ-12 total score

| age group |                    | GHQ-12 total score |       |       | Total  |
|-----------|--------------------|--------------------|-------|-------|--------|
|           |                    | 0-15               | 16-20 | 21≤   |        |
| 0-17      | Count              | 9                  | 0     | 1     | 10     |
|           | % within age group | 90.0%              | .0%   | 10.0% | 100.0% |
|           | % of Total         | 3.0%               | .0%   | .3%   | 3.3%   |
| 18-30     | Count              | 77                 | 11    | 2     | 90     |
|           | % within age group | 85.6%              | 12.2% | 2.2%  | 100.0% |
|           | % of Total         | 25.3%              | 3.6%  | .7%   | 29.6%  |
| 31-45     | Count              | 87                 | 12    | 3     | 102    |
|           | % within age group | 85.3%              | 11.8% | 2.9%  | 100.0% |
|           | % of Total         | 28.6%              | 3.9%  | 1.0%  | 33.6%  |
| 46-60     | Count              | 58                 | 3     | 5     | 66     |
|           | % within age group | 87.9%              | 4.5%  | 7.6%  | 100.0% |
|           | % of Total         | 19.1%              | 1.0%  | 1.6%  | 21.7%  |
| 60≤       | Count              | 26                 | 5     | 5     | 36     |
|           | % within age group | 72.2%              | 13.9% | 13.9% | 100.0% |
|           | % of Total         | 8.6%               | 1.6%  | 1.6%  | 11.8%  |
| Total     | Count              | 257                | 31    | 16    | 304    |
|           | % within age group | 84.5%              | 10.2% | 5.3%  | 100.0% |
|           | % of Total         | 84.5%              | 10.2% | 5.3%  | 100.0% |
|           |                    |                    |       |       |        |

|                              | Value     | df | Asymp. Sig. (2-sided) |
|------------------------------|-----------|----|-----------------------|
| Pearson Chi-Square           | 13.774(a) | 8  | .088                  |
| Likelihood Ratio             | 14.165    | 8  | .078                  |
| Linear-by-Linear Association | 3.629     | 1  | .057                  |
| N of Valid Cases             | 304       |    |                       |

6 cells (40.0%) have expected count less than 5. The minimum expected count is .53

Within marital status grouping, those divorced/separated/widowed show higher tendencies of distress and severe psychological problems than others, although in absolute numbers the higher frequency is shown by those who

are married (this however, could be attributed to the fact that most of the respondents in this survey are married). Details are given in Table 1.33.

Table 1.33: Marital status \* GHQ-12 total score

| Marital status                     |                               | GHQ-12 total score |                       |       | Total  |
|------------------------------------|-------------------------------|--------------------|-----------------------|-------|--------|
|                                    |                               | 0-15               | 16-20                 | 21≤   |        |
| never married                      | Count                         | 49                 | 2                     | 1     | 52     |
|                                    | % within marital status       | 94.2%              | 3.8%                  | 1.9%  | 100.0% |
|                                    | % of Total                    | 16.1%              | .7%                   | .3%   | 17.0%  |
| married                            | Count                         | 188                | 25                    | 10    | 223    |
|                                    | % within marital status       | 84.3%              | 11.2%                 | 4.5%  | 100.0% |
|                                    | % of Total                    | 61.6%              | 8.2%                  | 3.3%  | 73.1%  |
| divorced/<br>separated/<br>widowed | Count                         | 21                 | 4                     | 5     | 30     |
|                                    | % within marital status       | 70.0%              | 13.3%                 | 16.7% | 100.0% |
|                                    | % of Total                    | 6.9%               | 1.3%                  | 1.6%  | 9.8%   |
| Total                              | Count                         | 258                | 31                    | 16    | 305    |
|                                    | % within marital status group | 84.6%              | 10.2%                 | 5.2%  | 100.0% |
|                                    | % of Total                    | 84.6%              | 10.2%                 | 5.2%  | 100.0% |
|                                    |                               |                    |                       |       |        |
|                                    | Value                         | df                 | Asymp. Sig. (2-sided) |       |        |
| Pearson Chi-Square                 | 12.708(a)                     | 4                  | .013                  |       |        |
| Likelihood Ratio                   | 10.957                        | 4                  | .027                  |       |        |
| Linear-by-Linear Association       | 9.754                         | 1                  | .002                  |       |        |
| N of Valid Cases                   | 305                           |                    |                       |       |        |

3 cells (33.3%) have expected count less than 5. The minimum expected count is 1.57

Additional tables on cross tabulation of GHQ with other factors are included in Appendix III (b)

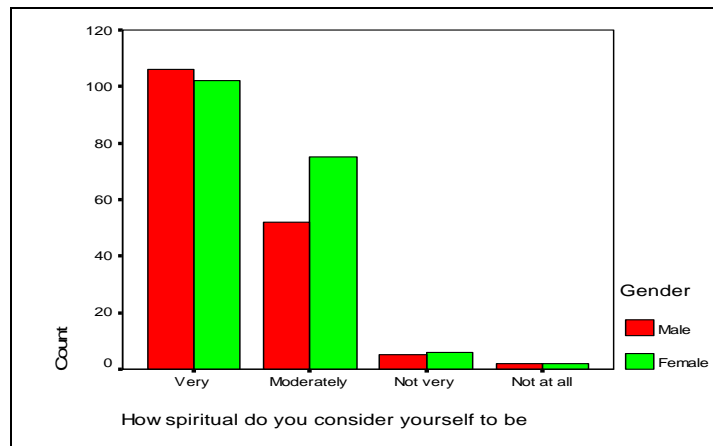
### 1.5.6 Spirituality

From a total of 350 respondents in this survey, 208 persons consider themselves to be very spiritual. Of these, 35.4% come from the 31-45 age group, 23.8% and 23.3% from the 18-30 and 46-60 age group respectively.

Married persons mostly assessed themselves to be very spiritual at 64.4%, as did 54.5% of those who are divorced/separated/widowed. Of those who have never been married, 42.2% said they are very spiritual and 54.7% said they are moderately spiritual. While 9.1% of divorced/separated/widowed people consider themselves not very spiritual as compared to 3.1% and 2.4% of never married and married persons respectively, only 1.6% of those who are married reported not being spiritual at all.

There appears to be minimal difference in gender with regard to degree of spirituality as those who consider themselves to be very spiritual constitute 51% male and 49% female. On the moderately spiritual level, women tended to be more in number at 59.1% as compared to 40.9% male.

Figure 1.8: Spirituality across gender



Within the lowest income group, 63.8% are very spiritual, 31% are moderately spiritual, 2.6% are not very spiritual, and 2.6% are not at all spiritual. Within the middle income group, 63.2% are very spiritual, 33.3% are moderately spiritual, and 3.4% are not very spiritual. Amongst those who fall in the highest income group, 52.5% are very spiritual, 42.5% are moderately spiritual, and 5% are not very spiritual.



### **1.5.7 Additional cross tabulation analysis**

Cross tabulation analysis tables on the two types of social support i.e. instrumental and emotional social support, as well as total social support score across various demographic items and income levels are provided in Appendix IV.

Appendix V includes cross tabulation analysis of happiness level with quality of life, life enjoyment, total social support score, GHQ total score, and the various positive and negative emotions.

## **1.6 Factors related to happiness and psychological wellbeing**

This section explores the various factors related to subjective wellbeing of the sampled Bhutanese population by further analysis of the PWB/SWB pilot survey data. Specifically, it focuses on the following two issues:

- Who reported higher levels of subjective wellbeing in terms of happiness, enjoyment of life, quality of life, and life satisfaction?
- Which factors are closely associated with higher subjective wellbeing status among people in Bhutan?

The exploratory analysis and results will be presented as follows:

1. Results on level of wellbeing status among people in Bhutan based on demographic characteristics
2. Results on level of wellbeing status based on the other psychosocial factors
3. Analysis on associated factors related to the higher level of wellbeing indicators

In the analysis, relations with perceived level of social support, stress and mental health, spirituality, and emotions are examined.

In the previous section, relations among subjective wellbeing indicators and other factors were examined through univariate analysis. In this section, relationships among factors influencing one's subjective wellbeing are looked at through multivariate analysis. However, all the results should be understood just as a preliminary data examination through pilot survey. This is partly because analyses in this section are based on limited data. Also, methods of analysis were designed for exploratory purposes to encourage further discussion.

Analysis is made based on demographic and PWB/SWB data, as well as income data from the survey. For examination of the group differences for each wellbeing indicator, t-test, GLM (General Linear Model) test, ANOVA (Analysis of Variance) and MANOVA (Multivariate Analysis of Variance) are carried out. Also, for the analysis of the associated factors, logistic regression analysis, linear regression analysis, path-analysis and factor analysis are conducted.

Psychological or subjective wellbeing is evaluated by the level of happiness, judgment toward one's quality of life (QOL), sense of enjoyment of life, as well as overall life satisfaction. Although four different measures are applied for psychological/subjective wellbeing in this analysis, a question still remains i.e. what is (psychological/subjective) 'wellbeing' and how can it be evaluated accurately? No consensus has been reached so far on the definition of 'wellbeing' among researchers dealing with the subject the world over. This seems rather contradictory considering that it is essential to utilize subjective wellbeing outcomes in order to understand what 'wellbeing' is, or what the key sources of wellbeing are for people in Bhutan.

Furthermore, as this is the central question being tackled in this report, it is almost impossible to answer the question based solely on the quantitative analysis carried out within the project. Complementary analysis based on qualitative data from people in Bhutan may be required to understand subjective wellbeing in a more holistic manner. However, with an understanding on the limitation of the analysis, PWB/SWB components such as life satisfaction, judgment on one's quality of life, perceived enjoyment of life and level of happiness are evaluated with demographic, psychosocial, and other factors, and the results are presented here to provide some points for further discussion.

### 1.6.1 Results on level of wellbeing status among people in Bhutan based on demographic characteristics

#### 1.6.1.1 Perceived main source of happiness and wellbeing

First, exploratory factor analysis and categorical main component analysis were conducted in order to understand main sources of happiness through categorization.

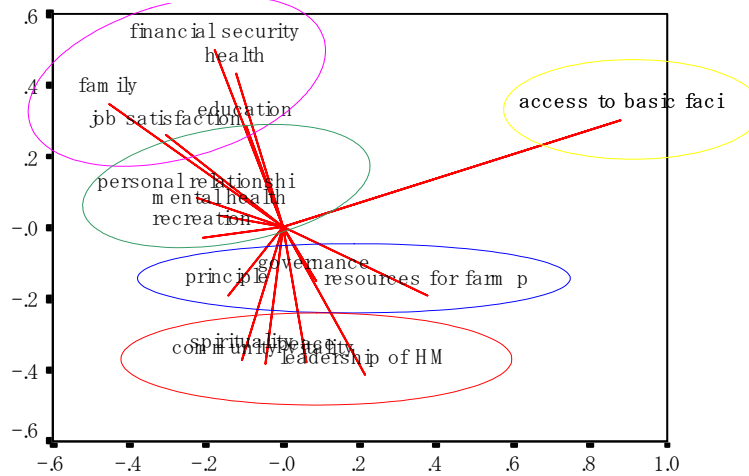
As seen in Table 1.34 and Figure 1.8, ‘financial security’, ‘good family life and wellbeing of family’, and ‘good health’ are categorized as the 1<sup>st</sup> component group of the sources of subjective wellbeing. Also, ‘job satisfaction’ and ‘personal relationship’ are categorized as the 1<sup>st</sup> component group of sources of happiness as well. This component can be understood as basic to the foundation of one’s life. The 2<sup>nd</sup> component group includes ‘spirituality’, ‘leadership of His Majesty the King’, ‘community vitality’, and ‘peace and security of the country’. As some theorize, after one fulfills the basic foundation of one’s life, he or she can move on to seek higher levels of satisfaction and happiness. However, what the basic foundations of one’s life are may differ across society, culture and time. Discussions about the main sources of subjective wellbeing are examined later.

Table 1.34: Factors people consider as their main source of happiness

| Components                           | 1st factor | 2nd factor | 3rd factor | 4th factor | 5th factor |
|--------------------------------------|------------|------------|------------|------------|------------|
| Good health                          | 0.33       | -0.24      | 0.28       | -0.12      | -0.11      |
| Good family life & Family well-being | 0.58       | -0.09      | 0.18       | -0.03      | -0.01      |
| financial security                   | 0.32       | -0.43      | 0.25       | -0.24      | -0.15      |
| job                                  | 0.53       | 0.14       | 0.00       | -0.07      | 0.13       |
| personal relationship                | 0.34       | 0.15       | -0.32      | 0.09       | -0.33      |
| spirituality                         | 0.01       | 0.43       | -0.32      | -0.03      | 0.02       |
| leadership of HM                     | -0.34      | 0.35       | 0.12       | 0.04       | -0.38      |
| community vitality                   | 0.00       | 0.59       | 0.16       | -0.18      | 0.12       |
| peace                                | -0.17      | 0.45       | 0.49       | -0.20      | -0.19      |
| good governance                      | -0.09      | 0.29       | 0.46       | 0.38       | 0.31       |
| access to basic facility             | -0.37      | -0.11      | 0.13       | 0.20       | 0.12       |
| education                            | 0.29       | -0.03      | 0.11       | 0.74       | 0.31       |
| recreation                           | 0.29       | 0.29       | -0.03      | 0.34       | -0.51      |
| principle                            | 0.13       | 0.26       | -0.59      | -0.12      | 0.36       |
| mental peace                         | 0.25       | 0.22       | 0.25       | -0.42      | 0.39       |
| resources for fam production         | -0.59      | -0.27      | -0.07      | -0.06      | 0.06       |

Factorial analysis; varimax rotated

Figure 1.8: Result of categorical main component



1.6.1.2 Differences on the level of subjective wellbeing based on demographic characteristics

Having specified the main components of the sources of wellbeing, the level of psychological/subjective wellbeing is examined based on demographic characteristics. Table 1.36 through 1.39 show crude mean by each demographic characteristic, and estimated mean value adjusted by correlated factors. For adjusted mean level, GLM test was conducted with controlled variables including age, gender, marital status, household size, geographical area, language group, employment status, educational level, and annual individual income level. This test has been conducted for all except the mean level by gender and age groups. The differences on the level of four wellbeing indicators by each category have been examined by ANOVA and MANOVA test. For Table 2,   indicates when statistical significance at the level of  $p < 0.05$ , and    $p < 0.1$  level. Also, for Tables 1.36 to 1.39, those groups reporting highest or relatively higher level of wellbeing are highlighted with colors (crude= , multi-adjusted= ).

Subjective Wellbeing in Bhutan

Table 1.35: Groups in higher subjective wellbeing status based on demographic characteristics

| 4 Well-being indicators |                |                                  |                                      |                                      |                                      |
|-------------------------|----------------|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
|                         |                | Happiness                        | QOL                                  | Enjoy                                | Satisfaction                         |
| Sex                     | crude          | male                             | male                                 | male                                 | female                               |
| Age                     | crude          | 46-60                            | 31-45                                | 46-60                                | 0-17                                 |
| Marital status          | crude          | never married                    | married                              | married                              | never married                        |
|                         | multi-adjusted | never married                    | never married                        | never married                        | never married                        |
| Household size          | crude          | 1-4 people                       | 1-4 people                           |                                      |                                      |
|                         |                | 5-8 people                       | 10-11 people                         | 10-11 people                         | 10-11 people                         |
|                         | multi-adjusted | 5-8 people                       | 10-11 people                         | 10-11 people                         | 10-11 people                         |
| Education               | crude          | 11-12 grades                     | 11-12 grades<br>Further education    | 1-6 grades                           | 11-12 grades                         |
|                         | multi-adjusted | 11-12 grades                     | 11-12 grades                         | 1-6 grades<br>11-12 grades           | 11-12 grades                         |
| Financial feasibility   | crude          | more than enough                 | more than enough                     | more than enough                     | more than enough                     |
|                         | multi-adjusted | more than enough                 | more than enough                     | more than enough                     | more than enough                     |
| Employment status       | crude          | Unemployed and looking for a job | Unemployed but not looking for a job | Unemployed but not looking for a job | Unemployed but not looking for a job |
|                         | multi-adjusted | Unemployed and looking for a job | Unemployed and looking for a job     | Unemployed but not looking for a job | Unemployed and looking for a job     |
| Annual income           | crude          | 150,000 ≤ Nu                     | 150,000 ≤ Nu                         | 150,000 ≤ Nu                         | 150,000 ≤ Nu                         |
|                         | multi-adjusted | 150,000 ≤ Nu                     | 150,000 ≤ Nu                         | 150,000 ≤ Nu                         | 150,000 ≤ Nu                         |

*1.6.1.3 Summary of the four different wellbeing indicators with demographic data*

Table 1.35 shows features of those groups reporting higher level of subjective wellbeing based on demographic characteristics. Results are shown separately by each indicator. As the rough drawing of overall result shows, (1) people who are male, (2) married or never married compared to those who are divorced, (3) finished education in higher level (11-12 grades), (4) unemployed, (5) whose financial feasibility is described as “more than enough” and (6) earn more than 150,000 NU as annual individual income have reported higher level of wellbeing, based on an evaluation of their life through happiness, enjoyment of life, life satisfaction and overall quality of life measures. In this survey, financial feasibility was evaluated through the question: “How well does your income meet your everyday needs?” The result suggests that after controlling actual income level, subjective judgment toward financial status is still a significant factor. It implies that financial security may be better understood not based on the amount of the income, but based on people’s needs. However, as data concerning living standards is limited, this point should be elaborated later with an appropriate data analysis. In addition, it should be borne in mind that these demographic conditions are independent, and not combined as accumulated conditions. Also, for the analysis on employment status, people who are students and retired people were not excluded from the analysis.

Crude and multi-adjusted mean levels of the four measures of subjective wellbeing are reported in the table 1.35:

*1.6.1.3.1 Level of happiness perception*

Table 1.36 indicates ‘level of happiness’ perceived by Bhutanese respondents who were asked to evaluate their happiness level by on a scale of 1-10. Overall results show that mean level of happiness was 6.97(SD±2.1) among the whole sample population. The result indicates that those who are male (crude: M=7.1) and aged 46-60 years old (crude: M=7.1) tend to show higher happiness level among each category.

Furthermore, those respondents who have never been married (crude/multi-adjusted: M=7.1 / M=7.4), who have education background of 11-12 grades (crude/multi-adjusted: M=7.6/ M=7.6), who reported their financial feasibility is ‘more than enough’ (crude/multi-adjusted: M=7.8/M=8.0) and whose total individual income is more than 150,000 NU (crude/multi-adjusted: M=7.4/M=7.4) reported highest level of happiness among each group respectively. ‘Financial feasibility’ is the only category showing statistical significance on the differences.

Table 1.36: Level of happiness with demographic characteristics

| Level of happiness    |                                      |                                      |     |      |      |                    |
|-----------------------|--------------------------------------|--------------------------------------|-----|------|------|--------------------|
| Variables             |                                      | Categories                           | N   | Mean | SD   | p for significance |
| Sex                   | crude                                | female                               | 185 | 6.8  | 2.18 | NS                 |
|                       |                                      | male                                 | 165 | 7.1  | 2.06 |                    |
| Age                   | crude                                | 0-17                                 | 13  | 6.5  | 1.85 | NS                 |
|                       |                                      | 18-30                                | 109 | 7.1  | 2.04 |                    |
|                       |                                      | 31-45                                | 116 | 6.7  | 2.08 |                    |
|                       |                                      | 46-60                                | 73  | 7.1  | 2.27 |                    |
|                       |                                      | 60<                                  | 37  | 7.0  | 2.39 |                    |
| Marital status        | crude                                | never married                        | 64  | 7.1  | 1.82 | NS                 |
|                       |                                      | married                              | 253 | 6.9  | 2.16 |                    |
|                       |                                      | divorced/separated/widowed           | 33  | 6.9  | 2.44 |                    |
|                       | multi-adjusted                       | never married                        | 42  | 7.4  | 1.71 |                    |
| multi-adjusted        | married                              | 204                                  | 6.9 | 2.17 |      |                    |
| multi-adjusted        | divorced/separated/widowed           | 24                                   | 6.8 | 2.11 |      |                    |
| Household size        | crude                                | 1-4 people                           | 132 | 7.0  | 2.03 | NS                 |
|                       |                                      | 5-8 people                           | 183 | 7.0  | 2.19 |                    |
|                       |                                      | 10-11 people                         | 35  | 6.7  | 2.18 |                    |
|                       | multi-adjusted                       | 1-4 people                           | 94  | 7.0  | 2.01 | NS                 |
|                       |                                      | 5-8 people                           | 153 | 7.1  | 2.13 |                    |
| multi-adjusted        | 10-11 people                         | 23                                   | 6.5 | 2.31 |      |                    |
| Education             | crude                                | No formal education                  | 203 | 6.8  | 2.29 | NS                 |
|                       |                                      | 1-6 grades                           | 49  | 7.1  | 1.93 |                    |
|                       |                                      | 7-10 grades                          | 36  | 7.2  | 1.73 |                    |
|                       |                                      | 11-12 grades                         | 10  | 7.6  | 1.71 |                    |
|                       | crude                                | Further education                    | 51  | 7.0  | 1.94 | NS                 |
|                       | multi-adjusted                       | No formal education                  | 166 | 6.9  | 2.26 |                    |
|                       | multi-adjusted                       | 1-6 grades                           | 40  | 7.1  | 1.85 |                    |
|                       | multi-adjusted                       | 7-10 grades                          | 27  | 7.4  | 1.85 |                    |
| multi-adjusted        | 11-12 grades                         | 8                                    | 7.6 | 1.77 |      |                    |
| multi-adjusted        | Further education                    | 29                                   | 6.8 | 1.81 |      |                    |
| Employment status     | crude                                | Employed                             | 239 | 6.8  | 2.19 | NS                 |
|                       |                                      | Unemployed and looking for a job     | 4   | 7.8  | 2.22 |                    |
|                       |                                      | Unemployed but not looking for a job | 105 | 7.2  | 1.95 |                    |
|                       | multi-adjusted                       | Employed                             | 191 | 6.9  | 2.16 | NS                 |
| multi-adjusted        | Unemployed and looking for a job     | 2                                    | 8.5 | 2.12 |      |                    |
| multi-adjusted        | Unemployed but not looking for a job | 77                                   | 7.2 | 1.96 |      |                    |
| Financial feasibility | crude                                | Not enough                           | 50  | 6.2  | 2.31 | ***                |
|                       |                                      | Just enough                          | 182 | 6.9  | 2.09 |                    |
|                       |                                      | More than enough                     | 31  | 7.8  | 1.83 |                    |
|                       | multi-adjusted                       | Not enough                           | 44  | 6.4  | 2.36 | **                 |
|                       |                                      | Just enough                          | 140 | 7.0  | 2.02 |                    |
| multi-adjusted        | More than enough                     | 24                                   | 8.0 | 1.94 |      |                    |
| Annual income         | crude                                | 0-9,999 Nu                           | 116 | 7.0  | 2.24 | NS                 |
|                       |                                      | 10,000-49,999Nu                      | 84  | 6.9  | 1.93 |                    |
|                       |                                      | 50,000-149,999Nu                     | 54  | 6.9  | 2.06 |                    |
|                       |                                      | 150,000 ≤ Nu                         | 19  | 7.4  | 2.12 |                    |
|                       | multi-adjusted                       | 0-9,999 Nu                           | 114 | 7.0  | 2.25 | NS                 |
|                       |                                      | 10,000-49,999Nu                      | 84  | 6.9  | 1.93 |                    |
|                       |                                      | 50,000-149,999Nu                     | 53  | 6.9  | 2.08 |                    |
|                       |                                      | 150,000 ≤ Nu                         | 19  | 7.4  | 2.12 |                    |
| Total                 |                                      |                                      | 273 | 7.0  | 2.10 |                    |

NS = no significant difference

statistical significance indicated as following symbols:\*\*\* = p &lt; 0.01 \*\* = p &lt; 0.05 \* = p &lt; 0.1

## 1.6.1.3.2 Level of quality of life (QOL) judgment

Table 1.37: Level of QOL with demographic characteristics

| Quality of life                      |                                  |                                      |      |      |      |                    |   |
|--------------------------------------|----------------------------------|--------------------------------------|------|------|------|--------------------|---|
| Variables                            |                                  | Categories                           | N    | Mean | SD   | p for significance |   |
| Sex                                  | crude                            | female                               | 185  | 3.6  | 0.79 | ***                |   |
|                                      |                                  | male                                 | 165  | 3.8  | 0.73 |                    |   |
| Age                                  | crude                            | 0-17                                 | 13   | 3.5  | 0.66 | NS                 |   |
|                                      |                                  | 18-30                                | 109  | 3.7  | 0.78 |                    |   |
|                                      |                                  | 31-45                                | 116  | 3.7  | 0.70 |                    |   |
|                                      |                                  | 46-60                                | 73   | 3.6  | 0.83 |                    |   |
|                                      |                                  | 60<                                  | 37   | 3.5  | 0.87 |                    |   |
| Marital status                       | crude                            | never married                        | 64   | 3.7  | 0.67 | NS                 |   |
|                                      |                                  | married                              | 253  | 3.7  | 0.78 |                    |   |
|                                      | divorced/separated/widowed       | 33                                   | 3.5  | 0.80 |      |                    |   |
|                                      | never married                    | 42                                   | 3.8  | 0.66 |      |                    |   |
| multi-adjusted                       | married                          | 204                                  | 3.7  | 0.77 |      |                    |   |
|                                      | divorced/separated/widowed       | 24                                   | 3.6  | 0.65 |      |                    |   |
| Household size                       | crude                            | 1-4 people                           | 132  | 3.7  | 0.77 | NS                 |   |
|                                      |                                  | 5-8 people                           | 183  | 3.6  | 0.78 |                    |   |
|                                      |                                  | 10-11 people                         | 35   | 3.7  | 0.71 |                    |   |
| multi-adjusted                       | 1-4 people                       | 94                                   | 3.7  | 0.75 | NS   |                    |   |
|                                      | 5-8 people                       | 153                                  | 3.7  | 0.75 |      |                    |   |
|                                      | 10-11 people                     | 23                                   | 3.7  | 0.70 |      |                    |   |
| Education                            | crude                            | No formal education                  | 203  | 3.6  | 0.83 | *                  |   |
|                                      |                                  | 1-6 grades                           | 49   | 3.6  | 0.70 |                    |   |
|                                      |                                  | 7-10 grades                          | 36   | 3.7  | 0.70 |                    |   |
|                                      |                                  | 11-12 grades                         | 10   | 3.9  | 0.57 |                    |   |
|                                      |                                  | Further education                    | 51   | 3.9  | 0.54 |                    |   |
|                                      | multi-adjusted                   | No formal education                  | 166  | 3.6  | 0.81 | NS                 |   |
|                                      |                                  | 1-6 grades                           | 40   | 3.6  | 0.67 |                    |   |
|                                      |                                  | 7-10 grades                          | 27   | 3.9  | 0.66 |                    |   |
| 11-12 grades                         | 8                                | 4.0                                  | 0.54 |      |      |                    |   |
| Further education                    | 29                               | 3.9                                  | 0.44 |      |      |                    |   |
| Employment status                    | crude                            | Employed                             | 239  | 3.6  | 0.77 | *                  |   |
|                                      |                                  | Unemployed and looking for a job     | 4    | 3.5  | 1.29 |                    |   |
|                                      |                                  | Unemployed but not looking for a job | 105  | 3.8  | 0.73 |                    |   |
|                                      | Employed                         | 191                                  | 3.6  | 0.75 |      |                    |   |
| multi-adjusted                       | Unemployed and looking for a job | 2                                    | 4.0  | 1.41 | **   |                    |   |
| Unemployed but not looking for a job | 77                               | 3.9                                  | 0.68 |      |      |                    |   |
| Financial feasibility                | crude                            | Not enough                           | 50   | 3.4  | 0.91 | **                 |   |
|                                      |                                  | Just enough                          | 182  | 3.7  | 0.74 |                    |   |
|                                      |                                  | More than enough                     | 31   | 3.9  | 0.56 |                    |   |
|                                      | multi-adjusted                   | Not enough                           | 44   | 3.5  | 0.12 |                    | * |
|                                      |                                  | Just enough                          | 140  | 3.7  | 0.06 |                    |   |
| More than enough                     | 24                               | 3.9                                  | 0.16 |      |      |                    |   |
| Annual income                        | crude                            | 0-9,999 Nu                           | 116  | 3.7  | 0.83 | *                  |   |
|                                      |                                  | 10,000-49,999Nu                      | 84   | 3.7  | 0.69 |                    |   |
|                                      |                                  | 50,000-149,999Nu                     | 54   | 3.7  | 0.68 |                    |   |
|                                      |                                  | 150,000 ≤ Nu                         | 19   | 4.1  | 0.32 |                    |   |
|                                      | multi-adjusted                   | 0-9,999 Nu                           | 114  | 3.7  | 0.83 | **                 |   |
|                                      |                                  | 10,000-49,999Nu                      | 84   | 3.7  | 0.69 |                    |   |
|                                      |                                  | 50,000-149,999Nu                     | 53   | 3.6  | 0.68 |                    |   |
|                                      |                                  | 150,000 ≤ Nu                         | 19   | 4.1  | 0.32 |                    |   |
| Total                                |                                  |                                      | 273  | 3.7  | 0.74 |                    |   |

NS = no significant difference

statistical significance indicated as following symbols: \*\*\* = p &lt; 0.01 \*\* = p &lt; 0.05 \* = p &lt; 0.1



Table 1.37 shows results on “QOL judgment” among the respondents. Judgment varies from 1 (very poor) to 5 (very good) levels; results of overall level of QOL judgment were mostly at levels 4 (good) and 3 (neither poor nor good).

People who tended scored closer to ‘4 (good)’ or ‘5 (very good)’ levels were found more among male, those the in 30-41 years age group, those never married, and those in the group educated up to 11-12 grades and further. Also, people who are unemployed tended to indicate higher QOL level. Furthermore, those who reported their financial feasibility as more than enough and whose annual income is more than 150,000 NU evaluated their QOL more frequently along the ‘good’ level than other groups did.

Statistically significant differences on QOL recognition are observed mainly based on gender, employment status, perceived financial feasibility and annual income differences.

#### *1.6.1.3.3 Enjoyment of life judgment*

Table 1.38 shows results regarding ‘level of enjoyment in one’s life’. The question asked to evaluate this was “how much do you enjoy your life?” Overall results show respondents evaluating that they enjoyed their lives between the levels of “a little” to “quite a lot”, as most chose the 2 middle levels among the 4 different levels of life enjoyment. People who recognized that they enjoy their life “quite a lot” are more often found to be male, aged 46-60 years old, married or never married, living in a bigger household (10-11 people in a household), unemployed and finished education up to 1-6 grades. Furthermore, people who reported that their financial feasibility is more than enough, and those who earn more than 150,000 NU as annual individual income tend to say they enjoy their life “quite a lot”.

Table 1.38: Level of Life Enjoyment with demographic characteristics

| Enjoyment of life                    |                            |                                      |                   |                   |      |                    |     |
|--------------------------------------|----------------------------|--------------------------------------|-------------------|-------------------|------|--------------------|-----|
| Variables                            |                            | Categories                           | N                 | Mean              | SD   | p for significance |     |
| Sex                                  | crude                      | female                               | 185               | 2.8               | 0.62 | **                 |     |
|                                      |                            | male                                 | 165               | 3.0               | 0.58 |                    |     |
| Age                                  | crude                      | 0-17                                 | 13                | 2.7               | 0.48 | NS                 |     |
|                                      |                            | 18-30                                | 109               | 2.8               | 0.56 |                    |     |
|                                      |                            | 31-45                                | 116               | 2.9               | 0.65 |                    |     |
|                                      |                            | 46-60                                | 73                | 3.0               | 0.62 |                    |     |
|                                      |                            | 60<                                  | 37                | 2.9               | 0.59 |                    |     |
| Marital status                       | crude                      | never married                        | 64                | 2.8               | 0.49 | NS                 |     |
|                                      |                            | married                              | 253               | 2.9               | 0.60 |                    |     |
|                                      | divorced/separated/widowed |                                      | 33                | 2.8               | 0.83 |                    |     |
|                                      | multi-adjusted             | never married                        | 42                | 2.9               | 0.43 |                    |     |
| married                              |                            | 204                                  | 2.9               | 0.62              |      |                    |     |
|                                      |                            | divorced/separated/widowed           | 24                | 2.8               | 0.85 |                    |     |
| Household size                       | crude                      | 1-4 people                           | 132               | 2.9               | 0.62 | NS                 |     |
|                                      |                            | 5-8 people                           | 183               | 2.9               | 0.61 |                    |     |
|                                      |                            | 10-11 people                         | 35                | 3.0               | 0.51 |                    |     |
|                                      | multi-adjusted             | 1-4 people                           | 94                | 2.9               | 0.64 | NS                 |     |
|                                      |                            | 5-8 people                           | 153               | 2.9               | 0.60 |                    |     |
|                                      |                            | 10-11 people                         | 23                | 3.0               | 0.60 |                    |     |
| Education                            | crude                      | No formal education                  | 203               | 2.9               | 0.67 | NS                 |     |
|                                      |                            | 1-6 grades                           | 49                | 3.0               | 0.56 |                    |     |
|                                      |                            | 7-10 grades                          | 36                | 2.8               | 0.45 |                    |     |
|                                      |                            | 11-12 grades                         | 10                | 3.0               | 0.00 |                    |     |
|                                      |                            |                                      | Further education | 51                | 2.8  | 0.52               |     |
|                                      | multi-adjusted             | No formal education                  | 166               | 2.9               | 0.69 | *                  |     |
|                                      |                            | 1-6 grades                           | 40                | 3.0               | 0.56 |                    |     |
|                                      |                            | 7-10 grades                          | 27                | 2.9               | 0.46 |                    |     |
|                                      |                            | 11-12 grades                         | 8                 | 3.0               | 0.00 |                    |     |
|                                      |                            |                                      |                   | Further education | 29   |                    | 2.9 |
|                                      |                            |                                      |                   |                   |      |                    |     |
| Employment status                    | crude                      | Employed                             | 239               | 2.9               | 0.64 | NS                 |     |
|                                      |                            | Unemployed and looking for a job     | 4                 | 2.8               | 0.50 |                    |     |
|                                      |                            | Unemployed but not looking for a job | 105               | 3.0               | 0.51 |                    |     |
|                                      | multi-adjusted             | Employed                             | 191               | 2.9               | 0.66 | NS                 |     |
| Unemployed and looking for a job     |                            | 2                                    | 3.0               | 0.00              |      |                    |     |
| Unemployed but not looking for a job |                            | 77                                   | 3.0               | 0.51              |      |                    |     |
| Financial feasibility                | crude                      | Not enough                           | 50                | 2.7               | 0.80 | ***                |     |
|                                      |                            | Just enough                          | 182               | 2.9               | 0.53 |                    |     |
|                                      |                            | More than enough                     | 31                | 3.2               | 0.48 |                    |     |
|                                      | multi-adjusted             | Not enough                           | 44                | 2.8               | 0.10 | **                 |     |
|                                      |                            | Just enough                          | 140               | 2.9               | 0.05 |                    |     |
|                                      |                            | More than enough                     | 24                | 3.2               | 0.13 |                    |     |
| Annual income                        | crude                      | 0-9,999 Nu                           | 116               | 2.8               | 0.62 | NS                 |     |
|                                      |                            | 10,000-49,999Nu                      | 84                | 3.0               | 0.66 |                    |     |
|                                      |                            | 50,000-149,999Nu                     | 54                | 3.0               | 0.53 |                    |     |
|                                      |                            | 150,000 ≤ Nu                         | 19                | 3.1               | 0.52 |                    |     |
|                                      | multi-adjusted             | 0-9,999 Nu                           | 114               | 2.8               | 0.63 | NS                 |     |
|                                      |                            | 10,000-49,999Nu                      | 84                | 3.0               | 0.66 |                    |     |
|                                      |                            | 50,000-149,999Nu                     | 53                | 3.0               | 0.54 |                    |     |
|                                      |                            | 150,000 ≤ Nu                         | 19                | 3.1               | 0.52 |                    |     |
| Total                                |                            |                                      | 273               | 2.9               | 0.61 |                    |     |

NS = no significant difference

statistical significance indicated as following symbols:\*\*\* = p &lt; 0.01 \*\* = p &lt; 0.05 \* = p &lt; 0.1

## 1.6.1.4 Level of life satisfaction

Table 1.39 shows level of 'life satisfaction'. Level of life satisfaction was evaluated by questions regarding level of satisfaction with one's "health", "security of finances/livelihood", "major occupation" and "relationship with family members".

Table 1.39: Level of Life satisfaction with demographic characteristics

| Total Life Satisfaction |                   |                                      |      |      |      |                    |
|-------------------------|-------------------|--------------------------------------|------|------|------|--------------------|
| Variables               |                   | Categories                           | N    | Mean | SD   | p for significance |
| Sex                     | crude             | female                               | 185  | 13.8 | 1.90 | NS                 |
|                         |                   | male                                 | 165  | 13.8 | 2.20 |                    |
| Age                     | crude             | 0-17                                 | 13   | 14.5 | 1.13 | NS                 |
|                         |                   | 18-30                                | 109  | 13.9 | 2.01 |                    |
|                         |                   | 31-45                                | 116  | 13.8 | 2.13 |                    |
|                         |                   | 46-60                                | 73   | 13.7 | 1.85 |                    |
|                         |                   | 60<                                  | 37   | 13.5 | 2.52 |                    |
| Marital status          | crude             | never married                        | 64   | 13.9 | 1.85 | NS                 |
|                         |                   | married                              | 253  | 13.8 | 2.09 |                    |
|                         |                   | divorced/separated/widowed           | 33   | 13.6 | 2.15 |                    |
|                         | multi-adjusted    | never married                        | 42   | 14.1 | 1.88 |                    |
| Household size          | crude             | 1-4 people                           | 132  | 13.9 | 2.04 | **                 |
|                         |                   | 5-8 people                           | 183  | 13.6 | 2.08 |                    |
|                         |                   | 10-11 people                         | 35   | 14.7 | 1.68 |                    |
| Education               | crude             | 1-4 people                           | 94   | 13.8 | 2.08 | *                  |
|                         |                   | 5-8 people                           | 153  | 13.7 | 2.12 |                    |
|                         |                   | 10-11 people                         | 23   | 14.4 | 1.83 |                    |
|                         |                   | Further education                    | 29   | 13.4 | 2.23 |                    |
|                         | multi-adjusted    | No formal education                  | 166  | 13.7 | 2.17 |                    |
| Employment status       | crude             | 1-6 grades                           | 49   | 14.0 | 1.85 | NS                 |
|                         |                   | 7-10 grades                          | 36   | 14.1 | 1.81 |                    |
|                         |                   | 11-12 grades                         | 10   | 14.2 | 2.20 |                    |
|                         |                   | Further education                    | 51   | 13.5 | 2.14 |                    |
|                         | multi-adjusted    | No formal education                  | 40   | 13.9 | 1.86 |                    |
| Financial feasibility   | crude             | 1-6 grades                           | 27   | 14.3 | 1.73 | **                 |
|                         |                   | 7-10 grades                          | 8    | 14.9 | 1.73 |                    |
|                         |                   | 11-12 grades                         | 8    | 14.9 | 1.73 |                    |
|                         | Further education | 29                                   | 13.4 | 2.23 |      |                    |
| Annual income           | crude             | Employed                             | 239  | 13.7 | 2.06 | NS                 |
|                         |                   | Unemployed and looking for a job     | 4    | 13.5 | 2.38 |                    |
|                         |                   | Unemployed but not looking for a job | 105  | 14.0 | 2.03 |                    |
| Annual income           | multi-adjusted    | Employed                             | 191  | 13.7 | 2.07 | NS                 |
|                         |                   | Unemployed and looking for a job     | 2    | 15.5 | 0.71 |                    |
|                         |                   | Unemployed but not looking for a job | 77   | 13.9 | 2.15 |                    |
| Annual income           | crude             | Not enough                           | 50   | 12.7 | 2.51 | ***                |
|                         |                   | Just enough                          | 182  | 14.0 | 1.91 |                    |
|                         |                   | More than enough                     | 31   | 14.9 | 1.50 |                    |
| Annual income           | multi-adjusted    | Not enough                           | 44   | 12.7 | 0.33 | ***                |
|                         |                   | Just enough                          | 140  | 13.8 | 0.18 |                    |
|                         |                   | More than enough                     | 24   | 15.2 | 0.44 |                    |
| Annual income           | crude             | 0-9,999 Nu                           | 116  | 13.7 | 2.28 | NS                 |
|                         |                   | 10,000-49,999 Nu                     | 84   | 13.9 | 1.85 |                    |
|                         |                   | 50,000-149,999 Nu                    | 54   | 13.6 | 1.96 |                    |
|                         |                   | 150,000 ≤ Nu                         | 19   | 14.2 | 2.17 |                    |
|                         | multi-adjusted    | 0-9,999 Nu                           | 114  | 13.7 | 2.30 |                    |
| Annual income           | crude             | 10,000-49,999 Nu                     | 84   | 13.9 | 1.85 | NS                 |
|                         |                   | 50,000-149,999 Nu                    | 53   | 13.6 | 1.95 |                    |
|                         |                   | 150,000 ≤ Nu                         | 19   | 14.2 | 2.17 |                    |
|                         | Total             | 273                                  | 13.8 | 2.08 |      |                    |

NS = no significant difference

statistical significance indicated as following symbols: \*\*\* = p < 0.01 \*\* = p < 0.05 \* = p < 0.1

Total life satisfaction was evaluated by summing up the scores of these four questions, which resulted in an average score of 13.79 (SD±2.08).

Unlike the other wellbeing indicators, life satisfaction evaluation is higher among females (Mean=13.85) than males (Mean=13.76). Furthermore, those who were in the youngest age group (0-17 years old), never married, educated 11-12 grades, and people who live with 10-11 people in a household reported higher life satisfaction than other groups. People who were unemployed, with financial feasibility described as “more than enough”, and those who earned annual individual income of more than 150,000 NU indicated higher satisfaction level towards their life. Household size and educational level by multi-adjusted result have shown statistically significant differences.

#### 1.6.1.4.1 Relation among the four subjective wellbeing measures

In addition to the overall results of the four subjective wellbeing measures, ‘level of happiness’ and ‘enjoyment of life’ display somewhat similar tendency, while ‘QOL judgment’ and ‘life satisfaction’ indicate similar status. In fact, correlation analysis among the four SWB measures show evidence of closer relationship between ‘happiness level’ and ‘level of enjoyment’ in one’s life among the survey respondents ( $r=0.481$   $p<0.01$ ); see Table 1.40 and Table 1.41.

Table 1.40: Result of correlation coefficient (by Pearson)

|                               | Level of happiness | Quality of life | Enjoyment of life | Total Life Satisfaction Score |
|-------------------------------|--------------------|-----------------|-------------------|-------------------------------|
| Level of happiness            | 1                  |                 |                   |                               |
| Quality of life               | 0.395              | 1               |                   |                               |
| Enjoyment of life             | 0.481              | 0.322           | 1                 |                               |
| Total Life Satisfaction Score | 0.212              | 0.311           | 0.293             | 1                             |

Table 1.41: Total scores of 4 wellbeing indicators

|                               | N   | Minimum | Maximum | Mean  | Std. Deviation |
|-------------------------------|-----|---------|---------|-------|----------------|
| Level of happiness            | 350 | 1       | 10      | 6.93  | (±2.13)        |
| Quality of life               | 350 | 1       | 5       | 3.66  | (±0.77)        |
| Enjoyment of life             | 350 | 1       | 4       | 2.89  | (±0.61)        |
| Total Life Satisfaction Score | 350 | 3       | 16      | 13.81 | (±2.05)        |

While this study has applied all these four measures to evaluate subjective wellbeing, the results now show that happiness and enjoyment are closely related, and QOL and life satisfaction are closely related.

Earlier, the study also mentioned its assumption that happiness and sense of wellbeing are related with moods and emotions. In some cases, happiness

might be influenced by other factors within a very short period of time, say within a minute. While QOL and life satisfaction may indicate, based on cognitive evaluation and individual subjective judgment of one's life in a relative sense, there is an argument on whether it might be more accurate to consider positive emotions as a reflective outcome of one's good life (as an evaluation or as one of the components of good life). In this study, however, happiness as well as enjoyment of life are treated as outcome of total life judgment.

### **1.6.2 Results on level of wellbeing status based on the other psychosocial factors**

#### *1.6.2.1 Differences among subjective wellbeing measures based on other psycho-social characteristics (social support, mental health, and degree of spirituality)*

This section examines level of subjective wellbeing with several factors identified by other studies as influential elements in individual subjective wellbeing. These factors are social support, mental health (depressed and distressed symptoms), and spirituality.

In this study, social support was evaluated based on individual perception on whether emotional and instrumental supports are available when needed. Also, mental health condition was looked at with the General Health Questionnaire (GHQ). The evaluation of spirituality, however, provokes much discussion and in this study, self-assessed spirituality based only on the question "how spiritual do you consider yourself to be?" is being examined further.

Since demographical analysis has shown significant difference among baseline groups, the following analysis have been carried out with adjustment made on demographic characters, age, gender, area, language group and income level group.

##### *1.6.2.1.1 Level of happiness perception*

As shown in Table 1.42, level of happiness is higher amongst those who are less distressed and consider themselves more spiritual. However, the extent of social network availability is not related to the level of individual happiness as suggested by earlier studies on SWB. These results are consistent with the analysis on instrumental support and emotional support. The analysis, which was conducted separately among level of happiness with instrumental support and emotional support, has also shown non-significant differences among happiness level and support levels.

Table 1.42: Level of happiness with social support network, mental health and spirituality

|   |  | N   | Mean | 95% CI     |       | SE   | p for trend |
|---|--|-----|------|------------|-------|------|-------------|
|   |  |     |      | Lower      | Upper |      |             |
| Social network                                | less SS  | 104 | 6.9  | (6.5- 7.3) |       | 0.22 | ns          |
|   | moderate SS                                      | 71  | 6.6  | (6.1- 7.2) |       | 0.27 |             |
|   | relatively high SS                               | 111 | 7.1  | (6.7- 7.5) |       | 0.18 |             |
|   | very high SS                                     | 64  | 7.0  | (6.4- 7.5) |       | 0.28 |             |
|   | Total  | 350 | 6.9  | (6.7- 7.2) |       | 0.11 |             |
| Mental health (GHQ score)                     | 0-15 (no problems)                               | 88  | 7.1  | (6.9- 7.4) |       | 0.13 | **          |
|   | 16-20 (distress)                                 | 81  | 6.4  | (5.5- 7.2) |       | 0.40 |             |
|   | >21 (severe problems and psychological distress) | 16  | 6.0  | (4.3- 7.7) |       | 0.81 |             |
|   | Total  | 185 | 7.0  | (6.8- 7.2) |       | 0.12 |             |
| How spiritual do you consider yourself to be? | not so much                                      | 115 | 6.5  | (5.0- 7.9) |       | 0.67 | ***         |
|   | moderately                                       | 127 | 6.5  | (6.2- 6.9) |       | 0.19 |             |
|   | very   | 208 | 7.2  | (6.9- 7.5) |       | 0.14 |             |
|   | Total  | 350 | 6.9  | (6.7- 7.2) |       | 0.11 |             |

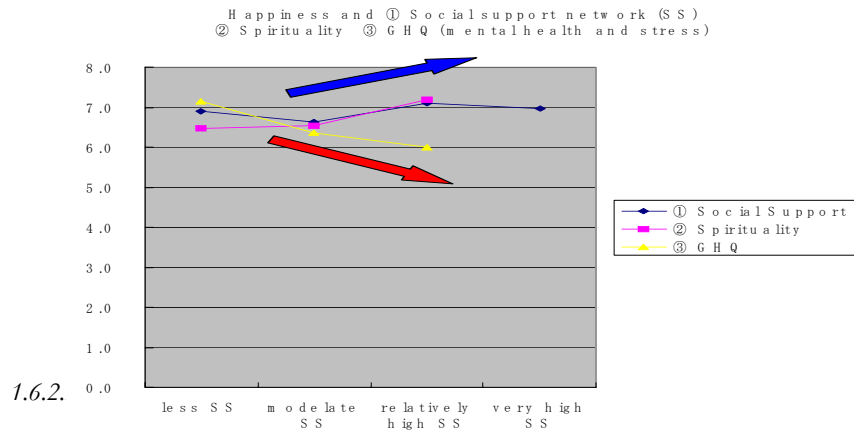


Table 1.43 introduces relationships between QOL levels and other psychosocial factors. In this evaluation, only mental health conditions indicate some relationship with QOL levels.

People who show no evidence of mental health problems tend to say that their quality of life is “good”. On the other hand, people showing some evidence of mental health problems are more likely to say that their quality of life is “poor”.

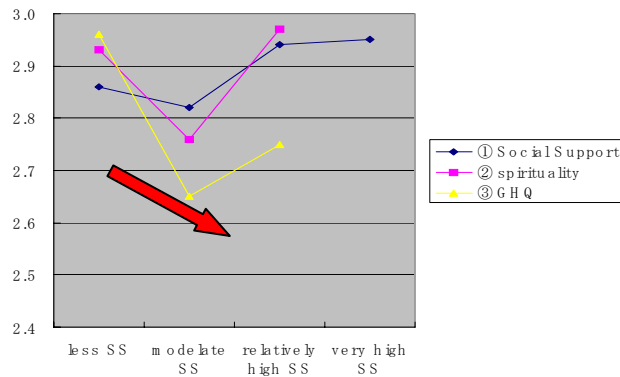
Perceived social support availability and self-assessed spirituality are statistically not related to quality of life levels. However, according to the results based on two types of social support, instrumental support shows some significant differences. People who have higher level of instrumental support tend to report better QOL levels ( $p < 0.01$ ).

Table 1.43: QOL with social support network, mental health and spirituality

|   | N  | Mean | 95% CI |           | SE   | p for trend |
|---|--|------|--------|-----------|------|-------------|
|   |  |      | Lower  | Upper     |      |             |
| Social network                                | less SS  | 104  | 3.6    | (3.4-3.8) | 0.09 | ns          |
|   | moderate SS                                      | 71   | 3.7    | (3.5-3.8) | 0.08 |             |
|   | relatively high SS                               | 111  | 3.7    | (3.6-3.8) | 0.07 |             |
|   | very high SS                                     | 64   | 3.7    | (3.5-3.9) | 0.09 |             |
|   | Total  | 350  | 3.7    | (3.6-3.7) | 0.04 |             |
| Mental health (GHQ score)                     | 0-15 (no problems)                               | 258  | 3.8    | (3.7-3.8) | 0.04 | ***         |
|   | 16-20 (distress)                                 | 31   | 3.4    | (3.0-3.8) | 0.18 |             |
|   | >21 (severe problems and psychological distress) | 16   | 2.9    | (2.4-3.4) | 0.24 |             |
|   | Total  | 305  | 3.7    | (3.6-3.8) | 0.04 |             |
| How spiritual do you consider yourself to be? | not so much                                      | 15   | 3.7    | (3.3-4.1) | 0.19 | NS          |
|   | moderately                                       | 127  | 3.6    | (3.5-3.7) | 0.06 |             |
|   | very   | 208  | 3.7    | (3.6-3.8) | 0.06 |             |
|   | Total  | 350  | 3.7    | (3.6-3.7) | 0.04 |             |

1.6.2.2.1

Enjoyment of life and ① Social support network (SS) ② Spirituality ③ GHQ (mental health and stress)

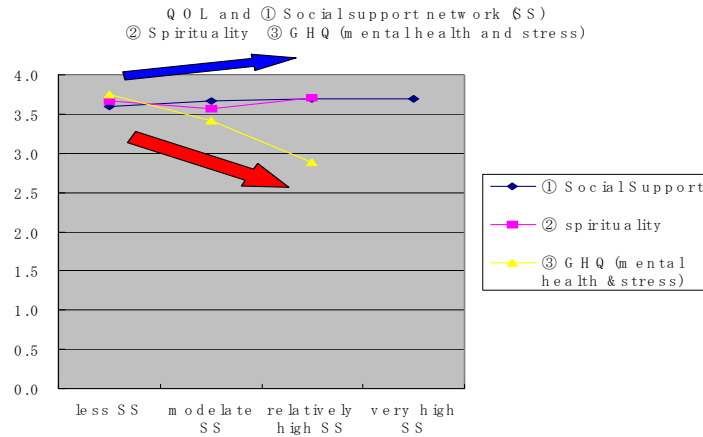


Enjoyment of life judgement

Life enjoyment did not seem to differ in relation to the level of perceived social support availability; separate analysis for instrumental and emotional support also show similar results. However, mental health condition and spirituality seem to show difference in relation to the level of life enjoyment. Those people who are less distressed and consider themselves spiritual, answered that they enjoy their own lives more than other groups did.

Table 1.44: Enjoyment of life with social support network, mental health and spirituality

|   |  | N   | Mean | 95%CI |       | SE  | p for trend |
|---|--|-----|------|-------|-------|-----|-------------|
|   |  |     |      | Lower | Upper |     |             |
| Social network                                | less SS  | 104 | 29   | 27-30 | 006   | ns  |             |
|   | moderate SS                                      | 71  | 28   | 27-30 | 007   |     |             |
|   | relatively high SS                               | 111 | 29   | 28-31 | 006   |     |             |
|   | very high SS                                     | 64  | 30   | 28-31 | 008   |     |             |
|   | Total  | 350 | 29   | 28-30 | 003   |     |             |
| Mental health (GHQ score)                     | 0-15 (no problems)                               | 233 | 30   | 29-30 | 004   | **  |             |
|   | 16-20 (distress)                                 | 31  | 27   | 24-29 | 014   |     |             |
|   | >21 (severe problems and psychological distress) | 16  | 28   | 23-32 | 021   |     |             |
|   | Total  | 305 | 29   | 29-30 | 004   |     |             |
| How spiritual do you consider yourself to be? | not so much                                      | 15  | 29   | 27-32 | 012   | *** |             |
|   | moderately                                       | 127 | 28   | 27-29 | 005   |     |             |
|   | very   | 208 | 30   | 29-31 | 004   |     |             |
|   | Total  | 350 | 29   | 28-30 | 003   |     |             |



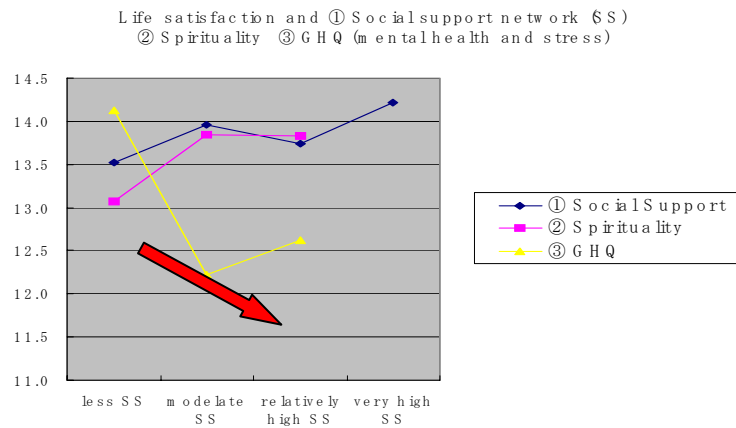


1.6.2.2.2 Total life satisfaction level

As a total score, social support differences did not reflect in life satisfaction levels. However, people who felt they had more instrumental support ( $p < 0.05$ ) and emotional support ( $p < 0.05$ ) reported higher life satisfaction scores. Those who were less distressed reported better levels of life satisfaction, and those people who considered themselves moderately spiritual or very spiritual tended to report higher levels of life satisfaction.

Table 1.45: Level of satisfaction with social support network, mental health and spirituality

|   |  | N   | Mean | 95% CI       |       | SE  | p for trend |
|---|--|-----|------|--------------|-------|-----|-------------|
|   |  |     |      | Lower        | Upper |     |             |
| Social network                                | less SS  | 104 | 13.5 | (13.1- 14.0) | 0.22  | ns  |             |
|   | moderate SS                                      | 71  | 14.0 | (13.4- 14.5) | 0.27  |     |             |
|   | relatively high SS                               | 111 | 13.7 | (13.4- 14.1) | 0.18  |     |             |
|   | very high SS                                     | 64  | 14.2 | (13.8- 14.6) | 0.20  |     |             |
|   | Total  | 350 | 13.8 | (13.6- 14.0) | 0.11  |     |             |
| Mental health GHQ score)                      | 0-15 (no problems)                               | 258 | 14.1 | (13.9- 14.3) | 0.11  | *** |             |
|   | 16-20 (distress)                                 | 31  | 12.2 | (11.2- 13.3) | 0.51  |     |             |
|   | >21 (severe problems and psychological distress) | 16  | 12.6 | (11.5- 13.7) | 0.52  |     |             |
|   | Total  | 305 | 13.9 | (13.6- 14.1) | 0.11  |     |             |
| How spiritual do you consider yourself to be? | not so much                                      | 15  | 13.1 | (11.9- 14.2) | 0.54  | NS  |             |
|   | moderately                                       | 127 | 13.8 | (13.5- 14.2) | 0.17  |     |             |
|   | very   | 208 | 13.8 | (13.5- 14.1) | 0.15  |     |             |
|   | Total  | 350 | 13.8 | (13.6- 14.0) | 0.11  |     |             |



Overall, the results show that level of happiness, quality of life, enjoyment of life, and life satisfaction are all better among respondents who show evidence of good mental health (significance level =  $p < 0.05$  for happiness and enjoyment,  $p < 0.01$  for QOL and life satisfaction).

Those who perceive higher social support availability tended to show better subjective wellbeing status. People with more instrumental support tend to report better subjective wellbeing status: for example, in situations when they need to go to hospital, when they are sick, and when they need some practical advice, those persons who perceive that they have support available to them tend to project better subjective wellbeing. Similarly, those with more emotional support i.e. having someone who shows love and affection, someone to have a good time with, and someone to get together with for relaxation, tended to show better subjective wellbeing status.

Also, people who consider themselves more spiritual tended to show higher levels of subjective wellbeing. There are no significant trends among 3 levels of spirituality with the four subjective wellbeing scores; however, people who consider themselves “very spiritual” show the highest level of happiness, quality of life, enjoyment of life, and life satisfaction.

These results seem to support the idea that social support availability, good mental health and spirituality are important factors influencing subjective wellbeing amongst people in Bhutan. However, after controlling influences of social backgrounds, only the trends with mental health were prominent. In order to examine factors related to subjective wellbeing in detail, further analysis is conducted in the following section.

### **1.6.3 Analysis of factors related to the higher level of subjective wellbeing**

In this section, level of wellbeing is examined as a total condition for people with higher levels of wellbeing across all four subjective wellbeing measures. Individuals who scored higher than average on level of happiness, higher in QOL, higher in enjoyment of life and higher in life satisfaction are categorized as the group of people with 'higher level of psychological wellbeing' in this study sample. Logistic regression analysis was carried out to examine factors related to this level of psychological wellbeing. In Table 13, for each variable, the 1<sup>st</sup> line shows crude result of probability of higher level of wellbeing, and the 2<sup>nd</sup> line shows multi-adjusted result of probability. Categorical data and continuous data are both included.

Table 1.46 indicates that after adjusting related factors, gender differences, positive emotions experience and spirituality were prominent factors related with psychological wellbeing. Male tend to report better subjective wellbeing than female. And people who reported more positive emotions have reported higher level of psychological wellbeing. Also, people who consider themselves more spiritual have reported higher psychological wellbeing than people who reported less spiritual tendency by 2.57 times.

Moreover, people who perceived that they have more instrumental and emotional social support around themselves tend to report higher level of psychological wellbeing. Also, those who have less depressive symptoms (lower GHQ score) show higher level of psychological wellbeing. Additionally, people who perceive their finances to be just enough or more than enough, show more likely tendencies towards better subjective wellbeing. This tendency is more prominent than actual income level.

Gross National Happiness and Material Welfare in Bhutan and Japan

|                                    |                            | SE   | Odds ratio | 95% RR       |       | p for trend |
|------------------------------------|----------------------------|------|------------|--------------|-------|-------------|
|                                    |                            |      |            | upper        | lower |             |
| sex                                | female                     |      | 1.00       |              |       |             |
|                                    | male                       | 0.23 | 2.34       | (1.51- 3.63) | ***   |             |
|                                    | female                     |      | 1.00       |              |       |             |
|                                    | male                       | 0.40 | 3.09       | (1.41- 6.76) | ***   |             |
| age (eHer)                         | never married              |      | 1.00       |              |       |             |
|                                    | married                    | 0.28 | 0.66       | (0.38- 1.15) | *     |             |
|                                    | divorced/separated/widowed | 0.49 | 0.29       | (0.11- 0.75) | ***   |             |
|                                    | never married              |      | 1.00       |              |       |             |
| marital status                     | married                    | 0.80 | 0.31       | (0.06- 1.46) | ns    |             |
|                                    | divorced/separated/widowed | 1.04 | 0.21       | (0.03- 1.59) |       |             |
|                                    | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.30 | 1.13       | (0.63- 2.03) | ns    |             |
| Family with children               | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.55 | 0.90       | (0.30- 2.65) | ns    |             |
| Educational level (higher)         |                            | 0.08 | 1.22       | (1.06- 1.42) | ***   |             |
|                                    |                            | 0.19 | 0.86       | (0.60- 1.25) | ns    |             |
|                                    |                            |      | 1.00       |              |       |             |
| Total individual income            | 0-9,999 Nu                 |      | 1.00       |              |       |             |
|                                    | 10,000-99,999 Nu           | 0.27 | 0.73       | (0.43- 1.25) | ns    |             |
|                                    | 100,000 ≥ Nu               | 0.37 | 1.62       | (0.79- 3.34) |       |             |
|                                    | 0-9,999 Nu                 |      | 1.00       |              |       |             |
| Financial feasibility              | 10,000-99,999 Nu           | 0.41 | 0.59       | (0.26- 1.31) | ns    |             |
|                                    | 100,000 ≥ Nu               | 0.57 | 1.31       | (0.43- 4.01) |       |             |
|                                    | Not enough                 |      | 1.00       |              |       |             |
|                                    | Just enough                | 0.35 | 1.72       | (0.87- 3.42) | *     |             |
| Employment status                  | More than enough           | 0.48 | 2.41       | (0.95- 6.15) | **    |             |
|                                    | Not enough                 |      | 1.00       |              |       |             |
|                                    | Just enough                | 0.47 | 1.69       | (0.67- 4.23) | ns    |             |
|                                    | More than enough           | 0.68 | 2.09       | (0.55- 7.90) |       |             |
| negative emotion (more frequently) | employed                   |      | 1.00       |              |       |             |
|                                    | unemployed                 | 0.12 | 1.32       | (1.05- 1.67) | ***   |             |
|                                    | employed                   |      | 1.00       |              |       |             |
|                                    | unemployed                 | 0.42 | 1.76       | (0.78- 3.97) | *     |             |
| positive emotion (more frequently) | employed                   | 0.03 | 0.93       | (0.87- 0.99) | ***   |             |
|                                    | unemployed                 | 0.06 | 0.99       | (0.88- 1.12) |       |             |
| spirituality                       | employed                   | 0.06 | 1.18       | (1.06- 1.32) | ***   |             |
|                                    | unemployed                 | 0.09 | 1.15       | (0.96- 1.38) | *     |             |
|                                    | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.19 | 1.62       | (1.11- 2.36) | ***   |             |
| Monastic education                 | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.42 | 2.57       | (1.14- 5.81) | ***   |             |
|                                    | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.52 | 0.86       | (0.31- 2.39) | ns    |             |
| GHQ score (higher)                 | no                         |      | 1.00       |              |       |             |
|                                    | yes                        | 0.81 | 0.21       | (0.04- 1.04) | **    |             |
| SS (instrumental support) (higher) | no                         | 0.03 | 0.91       | (0.87- 0.96) | ***   |             |
|                                    | yes                        | 0.04 | 0.97       | (0.89- 1.05) | ns    |             |
| SS (emotional support) (higher)    | no                         | 0.06 | 1.03       | (0.91- 1.17) | *     |             |
|                                    | yes                        | 0.13 | 0.88       | (0.69- 1.13) | ns    |             |
| SS (emotional support) (higher)    | no                         | 0.07 | 1.01       | (0.88- 1.16) | *     |             |
|                                    | yes                        | 0.13 | 0.91       | (0.70- 1.17) | ns    |             |

above line describes crude odds ratio, and below line describes multi-adjusted odds ratio  
 Statistical significance are indicated as follows, \*\*\*=p<0.01, \*\*=p<0.05, \*p<0.1

Table 1.46:

Factors associated with higher level of subjective wellbeing

(Total condition of 4 subjective wellbeing indicators)

## 1.6.3.1.1 Exploratory analysis on relationship with emotions and PWB/SWB

As the previous section implies that subjective perceptions of one's situation as well as emotions are important, experience of positive and negative emotions are being examined further. Factor analysis, categorical component analysis, regression analysis and path-analysis were conducted for the examination.

## 1.6.3.1.2 Components of emotions and relationship with the four subjective wellbeing measures

The results through factor analysis and categorical component analysis indicate that the 15 emotions examined have 4 main components (varimax rotated,  $R^2=0.46$ ).

Table 1.47: Factor analysis on emotions

| Factorial analysis | Component |       |       |       |
|--------------------|-----------|-------|-------|-------|
|                    | 1         | 2     | 3     | 4     |
| calmness           | 0.55      | -0.18 | 0.10  | -0.09 |
| empathy/compassion | 0.76      | 0.04  | -0.03 | 0.05  |
| forgiveness        | 0.68      | 0.13  | -0.09 | 0.18  |
| contentment        | 0.60      | -0.10 | 0.19  | -0.14 |
| generosity         | 0.74      | 0.08  | -0.15 | 0.13  |
| anger              | -0.12     | 0.70  | 0.05  | 0.07  |
| disappointment     | 0.01      | 0.71  | 0.13  | 0.12  |
| sadness            | 0.18      | 0.72  | 0.09  | 0.27  |
| frustration        | -0.05     | 0.75  | 0.27  | 0.04  |
| selfishness        | -0.01     | 0.15  | 0.73  | 0.00  |
| jealousy           | 0.03      | 0.18  | 0.70  | 0.09  |
| pride              | 0.07      | 0.03  | 0.63  | 0.24  |
| envy               | -0.15     | 0.25  | 0.49  | 0.37  |
| guilt              | 0.14      | 0.23  | 0.15  | 0.73  |
| resentment         | -0.02     | 0.11  | 0.20  | 0.82  |

To verify the results, further examination was conducted based on 1 positive and 3 negative category of emotions. The results show average PWB/SWB based on frequencies of positive and negative emotions experienced by respondents.

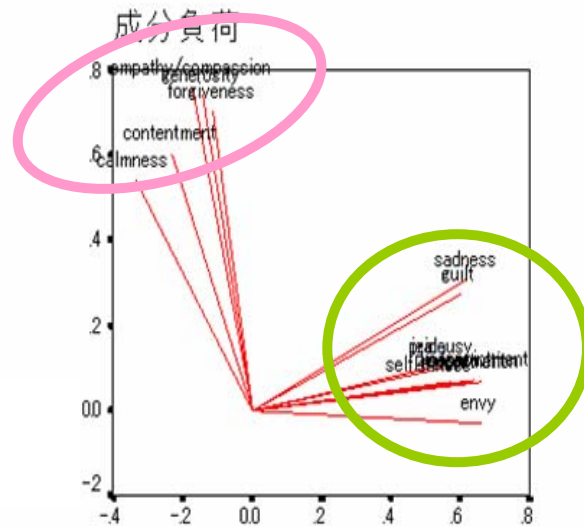


Table 1.48: Mean level of subjective wellbeing by frequency of positive emotions

| emotions           | frequency | Level of happiness |      |        | Quality of life |      |        | Enjoyment of life |      |        | Total life satisfaction |      |        |
|--------------------|-----------|--------------------|------|--------|-----------------|------|--------|-------------------|------|--------|-------------------------|------|--------|
|                    |           | N                  | Mean | SD     | N               | Mean | SD     | N                 | Mean | SD     | N                       | Mean | SD     |
| Calmness           | Never     | 50                 | 67   | (±229) | 50              | 36   | (±083) | 50                | 30   | (±064) | 50                      | 133  | (±214) |
|                    | Sometimes | 216                | 68   | (±208) | 216             | 36   | (±078) | 216               | 28   | (±058) | 216                     | 138  | (±201) |
|                    | Often     | 83                 | 75   | (±207) | 83              | 38   | (±069) | 83                | 30   | (±062) | 83                      | 140  | (±207) |
| Empathy/Compassion | Never     | 29                 | 67   | (±178) | 29              | 34   | (±073) | 29                | 28   | (±056) | 29                      | 142  | (±184) |
|                    | Sometimes | 198                | 68   | (±217) | 198             | 37   | (±079) | 198               | 29   | (±056) | 198                     | 138  | (±196) |
|                    | Often     | 122                | 73   | (±211) | 122             | 37   | (±074) | 122               | 30   | (±068) | 122                     | 137  | (±223) |
| Forgiveness        | Never     | 40                 | 73   | (±179) | 40              | 36   | (±081) | 40                | 30   | (±058) | 40                      | 137  | (±200) |
|                    | Sometimes | 227                | 68   | (±217) | 227             | 36   | (±080) | 227               | 28   | (±063) | 227                     | 139  | (±204) |
|                    | Often     | 81                 | 71   | (±214) | 81              | 38   | (±062) | 81                | 30   | (±052) | 81                      | 135  | (±210) |
| Contentment        | Never     | 52                 | 66   | (±229) | 52              | 34   | (±087) | 52                | 29   | (±061) | 52                      | 129  | (±267) |
|                    | Sometimes | 215                | 67   | (±205) | 215             | 36   | (±074) | 215               | 29   | (±057) | 215                     | 139  | (±190) |
|                    | Often     | 82                 | 77   | (±209) | 82              | 39   | (±070) | 82                | 30   | (±068) | 82                      | 142  | (±182) |
| Generosity         | Never     | 22                 | 66   | (±184) | 22              | 35   | (±086) | 22                | 31   | (±043) | 22                      | 140  | (±172) |
|                    | Sometimes | 221                | 68   | (±210) | 221             | 37   | (±077) | 221               | 29   | (±060) | 221                     | 139  | (±192) |
|                    | Often     | 106                | 73   | (±222) | 106             | 37   | (±075) | 106               | 30   | (±064) | 106                     | 136  | (±235) |

Table 1.48 indicates that level of happiness and quality of life are reported higher amongst people who experienced “calmness”, “empathy/compassion”, “forgiveness”, “contentment” and “generosity” more often ‘in the last few weeks’. Reverse tendencies are shown for total life satisfaction score i.e. those who reported less empathy/compassion and less generosity show higher level of life satisfaction.

Table 1.49 shows that all of the four measures of subjective wellbeing are reported higher amongst respondents who experienced negative emotions less frequently. These emotions are noted as “anger”, “disappointment”, “sadness” and “frustration”. All results were consistent.

Table 1.49: Mean level of subjective wellbeing by frequency of negative emotions

| emotions       | frequency | Level of happiness |      |         | Quality of life |      |         | Enjoyment of life |      |         | Total Life Satisfaction |      |         |
|----------------|-----------|--------------------|------|---------|-----------------|------|---------|-------------------|------|---------|-------------------------|------|---------|
|                |           | N                  | Mean | SD      | N               | Mean | SD      | N                 | Mean | SD      | N                       | Mean | SD      |
| Anger          | Never     | 122                | 7.0  | (±2.17) | 122             | 3.8  | (±0.72) | 122               | 3.0  | (±0.53) | 122                     | 14.1 | (±1.82) |
|                | Sometimes | 180                | 7.0  | (±2.06) | 180             | 3.7  | (±0.75) | 180               | 2.9  | (±0.61) | 180                     | 14.0 | (±1.95) |
|                | Often     | 47                 | 6.5  | (±2.26) | 47              | 3.3  | (±0.86) | 47                | 2.7  | (±0.70) | 47                      | 12.5 | (±2.51) |
| Disappointment | Never     | 121                | 7.3  | (±2.12) | 121             | 3.8  | (±0.80) | 121               | 2.9  | (±0.62) | 121                     | 14.0 | (±2.13) |
|                | Sometimes | 210                | 6.8  | (±2.07) | 210             | 3.6  | (±0.74) | 210               | 2.9  | (±0.58) | 210                     | 13.9 | (±1.87) |
|                | Often     | 18                 | 6.3  | (±2.59) | 18              | 3.3  | (±0.77) | 18                | 2.8  | (±0.79) | 18                      | 11.9 | (±2.61) |
| Sadness        | Never     | 134                | 7.5  | (±1.87) | 134             | 3.8  | (±0.73) | 134               | 3.0  | (±0.56) | 134                     | 14.2 | (±1.81) |
|                | Sometimes | 188                | 6.6  | (±2.14) | 188             | 3.6  | (±0.75) | 188               | 2.8  | (±0.57) | 188                     | 13.8 | (±1.93) |
|                | Often     | 27                 | 6.6  | (±2.65) | 27              | 3.4  | (±0.97) | 27                | 2.7  | (±0.87) | 27                      | 12.1 | (±2.98) |
| Frustration    | Never     | 137                | 7.3  | (±2.10) | 137             | 3.7  | (±0.74) | 137               | 3.1  | (±0.58) | 137                     | 13.9 | (±1.93) |
|                | Sometimes | 193                | 6.8  | (±2.02) | 193             | 3.6  | (±0.75) | 193               | 2.8  | (±0.55) | 193                     | 13.9 | (±1.90) |
|                | Often     | 18                 | 5.8  | (±2.36) | 18              | 3.2  | (±1.06) | 18                | 2.5  | (±0.92) | 18                      | 11.9 | (±3.40) |

Subjective Wellbeing in Bhutan

Table 1.50: Mean level of subjective wellbeing by frequency of interpersonal and spiritually negative emotions

| emotions    | frequency | Level of happiness |      |         | Quality of life |      |         | Enjoyment of life |      |         | Total Life Satisfaction |      |          |
|-------------|-----------|--------------------|------|---------|-----------------|------|---------|-------------------|------|---------|-------------------------|------|----------|
|             |           | N                  | Mean | SD      | N               | Mean | SD      | N                 | Mean | SD      | N                       | Mean | SD       |
| Selfishness | Never     | 257                | 2.1  | (±6.90) | 257             | 0.7  | (±3.67) | 257               | 0.6  | (±2.89) | 257                     | 1.9  | (±13.88) |
|             | Sometimes | 84                 | 2.1  | (±7.01) | 84              | 0.8  | (±3.71) | 84                | 0.7  | (±2.89) | 84                      | 2.1  | (±13.71) |
|             | Often     | 8                  | 3.1  | (±7.00) | 8               | 1.0  | (±2.88) | 8                 | 1.1  | (±2.88) | 8                       | 4.2  | (±12.25) |
| Jealousy    | Never     | 291                | 7.0  | (±2.11) | 291             | 3.7  | (±0.77) | 291               | 2.9  | (±0.59) | 291                     | 13.8 | (±2.04)  |
|             | Sometimes | 53                 | 6.6  | (±2.10) | 53              | 3.7  | (±0.73) | 53                | 2.8  | (±0.68) | 53                      | 13.6 | (±2.10)  |
|             | Often     | 5                  | 5.2  | (±2.68) | 5               | 3.2  | (±0.84) | 5                 | 2.8  | (±0.84) | 5                       | 13.6 | (±2.51)  |
| Pride       | Never     | 229                | 6.8  | (±2.25) | 229             | 3.6  | (±0.76) | 229               | 2.9  | (±0.62) | 229                     | 13.7 | (±2.13)  |
|             | Sometimes | 100                | 7.0  | (±1.93) | 100             | 3.7  | (±0.80) | 100               | 2.9  | (±0.58) | 100                     | 13.9 | (±1.90)  |
|             | Often     | 20                 | 7.6  | (±1.43) | 20              | 4.1  | (±0.51) | 20                | 3.1  | (±0.55) | 20                      | 14.5 | (±1.76)  |
| Envy        | Never     | 180                | 7.2  | (±2.14) | 180             | 3.8  | (±0.71) | 180               | 2.9  | (±0.56) | 180                     | 14.0 | (±1.93)  |
|             | Sometimes | 143                | 6.7  | (±1.96) | 143             | 3.6  | (±0.78) | 143               | 2.9  | (±0.63) | 143                     | 13.9 | (±1.94)  |
|             | Often     | 26                 | 6.4  | (±2.70) | 26              | 3.2  | (±0.91) | 26                | 2.7  | (±0.72) | 26                      | 12.3 | (±2.84)  |
| Guilt       | Never     | 203                | 7.2  | (±2.03) | 203             | 3.7  | (±0.76) | 203               | 3.0  | (±0.59) | 203                     | 14.2 | (±1.83)  |
|             | Sometimes | 129                | 6.5  | (±2.23) | 129             | 3.6  | (±0.79) | 129               | 2.8  | (±0.61) | 129                     | 13.3 | (±2.25)  |
|             | Often     | 17                 | 6.5  | (±2.07) | 17              | 3.8  | (±0.75) | 17                | 2.9  | (±0.66) | 17                      | 12.9 | (±2.11)  |
| Resentment  | Never     | 183                | 7.2  | (±2.07) | 183             | 3.7  | (±0.75) | 183               | 3.0  | (±0.58) | 183                     | 13.9 | (±2.16)  |
|             | Sometimes | 150                | 6.7  | (±2.15) | 150             | 3.7  | (±0.81) | 150               | 2.8  | (±0.62) | 150                     | 13.8 | (±1.92)  |
|             | Often     | 16                 | 6.8  | (±2.41) | 16              | 3.5  | (±0.52) | 16                | 3.1  | (±0.57) | 16                      | 13.4 | (±2.03)  |



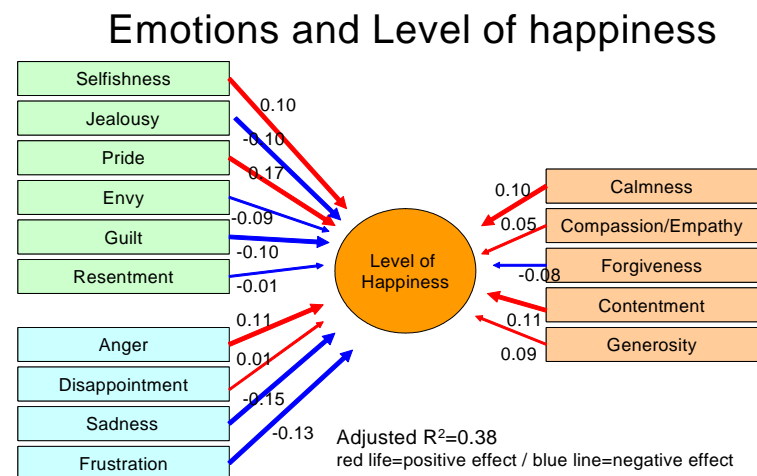
Table 1.50 suggests mixed influences of some of the negative emotions. There was tendency amongst people who felt more “selfishness” and “pride” to show higher level of subjective wellbeing for all of the four SWB measures. Those who felt less “jealousy”, “envy”, “guilt” and “resentment” also tended to report better levels of wellbeing.

1.6.3.1.3 Multivariate analysis on relations among emotions and happiness/life satisfaction

Figures 1.9 and 1.10<sup>6</sup> are results of the relationship between emotions and level of happiness, and those between emotions and life satisfaction. Regression analysis and path-analysis were conducted with age and gender adjustment.

Figure 1.9 indicates that there exist mixed effects of positive and negative emotions toward happiness levels. Most of the positive emotions were related to higher level of happiness, such as “calmness”, “compassion”, “contentment” and “generosity”. Negative emotions such as “jealousy”, “envy”, “guilt”, “resentment”, “sadness” and “frustration” were negatively related to higher level of happiness. However, “selfishness”, “pride” and “anger” have shown positive relation with higher level of happiness.

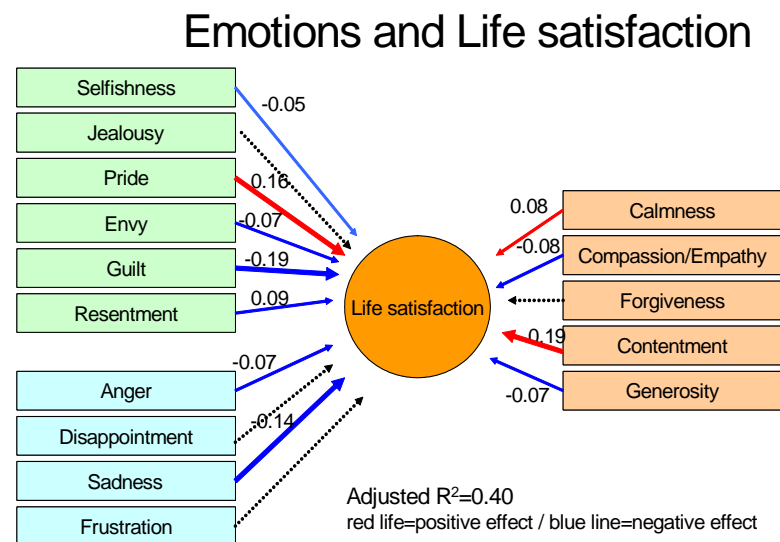
Figure 1.9: Relations among level of happiness and emotions



<sup>6</sup> Blue line shows negative effect and red line shows positive effect, and black line is indicated when no relation was found.

Also, Figure 1.10 indicates that positive emotions were not always related to higher level of life satisfaction. While “contentment”, “calmness” and “pride” showed positive association with higher level of happiness, the frequent experience of emotions such as “sadness”, “anger”, “resentment”, “envy”, “guilt” and “selfishness” were negatively associated with higher level of life satisfaction.

Figure 1.10: Relations among life satisfaction and emotions



We see from this analysis that emotions such as “calmness” and “contentment” consistently show positive relations with higher level of subjective wellbeing. Emotions such as “guilt”, “sadness”, and “resentment” show negative association with higher level of subjective wellbeing. “Pride” shows consistent result on the positive association with higher level of subjective wellbeing.

The question of whether pride is a positive or negative emotion arises here. Previous scholarly studies, mainly those from countries in the west, have suggested “pride” to be a positive emotion related to better psychological wellbeing. However, in this study pride was categorized as a negative emotion based on Buddhist philosophy. It is interesting to note that the analysis here indicates “pride” may be related with higher level of PWB/SWB wellbeing amongst the sampled Bhutanese respondents.

Frederickson(2001) states that positive emotions are worth cultivating not just as end states in themselves but also as a means to achieving psychological growth and improve wellbeing over time. It may be noteworthy that enhancement of circumstances which promotes positive emotions are important; however, at the same time, negative emotions also provide some people to grow mentally. It has been stated that overall balance of positive and negative emotions could be a good predictor for one's subjective wellbeing level.

In fact, Kahneman (1999) suggests that “objective happiness” can be measured by tracking people's momentary experiences of good and bad feelings. Furthermore, Markus and Kitayama (1994) propose the idea that cultural influences lead to appropriate behavior, and engagement in such behavior leads people to experience good emotions. Therefore, emotions are understood as important components to predict subjective wellbeing levels, and experiences of emotions are constructed through cultural norms and value of the society, which may require further efforts on qualitative data gathering on perceptions on one's life.

### **1.7 Overall result of exploratory data analysis on PWB/SWB in Bhutan**

The following is a summary of the preliminary results that have been found, based on the analysis of data on psychological and subjective wellbeing pilot survey in Bhutan:

- The main components perceived to be sources of happiness and wellbeing among the respondents surveyed for this study are “financial security”, “good health”, and “good family life and wellbeing of family”.
- Some relationships of demographic characteristics are not consistent across the four measures of subjective wellbeing included in this study i.e. level of happiness, enjoyment of life, quality of life, and life satisfaction.
- There are some general tendencies amongst respondents reporting relatively higher levels of subjective wellbeing. They fall within the following categories or groups: male, married or never married, living in relatively larger household, education level of 11-12 grade, unemployed, self-reported financial feasibility (i.e. enough to meet their daily needs), and income levels of NU 150,000 or more.
- Perceived social support availability is positively related to higher level of subjective wellbeing.

- Spirituality is related to higher level of subjective wellbeing.
- Mental health and stress level are negatively related to subjective wellbeing.
- Positive emotions are generally associated with higher level of subjective wellbeing. However, jealousy and envy show mixed results.
- “Calmness”, “contentment” and “pride” show positive relations with higher levels of subjective wellbeing. On the other hand, “guilt”, “sadness”, and “resentment” show negative association with better subjective wellbeing.

Since cognitive judgment and emotional experience are closely related, relationships among these terms need to be understood carefully, especially when assuming subjective wellbeing as the basis of cultural norms. It is stated that society evaluates positive emotion or happy status as a good indicator of wellbeing, and amount of positive emotion will directly relate to quality of wellbeing. However, in a society where higher priority may be placed towards situations that encourage spiritual growth by experiencing difficult conditions, positive feeling may not be directly reflected as desirable to general sense of wellbeing. The result of this pilot survey on PWB/SWB in Bhutan implies that Bhutanese people might have a different way of evaluating overall subjective wellbeing as compared to people from other cultures.

An awareness of the importance of subjective wellbeing can be a valuable guiding tool for society. The results of this study imply that subjective judgment toward one’s life varies based on their life conditions. Financial security is found to be not just an influential factor but also a basic foundation in the evaluation of subjective wellbeing amongst the population. However, it should be noted that subjective judgment of one’s sense of financial security comes out as a more important consideration than absolute income levels. In future, this point needs to be examined further with appropriate data.

Perceived social support availability and spirituality are implied to have buffered effects over levels of life satisfaction as well as those of happiness. This function can be interpreted as one kind of social capital, which could secure people’s everyday life through social ties rather than relying on income alone. It is generally accepted that up to a certain level, financial growth and material achievement can predict people’s happiness. However, after surpassing a certain level, financial growth and material achievement cannot guarantee increasing happiness or satisfaction levels. Causal-effect relationships among influential external conditions and internal sense of

wellbeing need to be examined further. Analysis on inner mechanisms of subjective wellbeing judgment needs to be analyzed as well.

Lastly, it is worthwhile to point out that examination of individual happiness and social happiness could help identify gaps between social and private (individual) benefits and costs. It is said that accumulation of individual happiness may not necessary reflect societal happiness. On the contrary, it is also true that the societal happiness as a whole may not be a direct reflection of individual happiness. In order to better comprehend subjective wellbeing and its impacts on the society, more efforts in data gathering and refinement in analytical methods will be required.

