



UNIVERSITI PUTRA MALAYSIA

***POSITIVE MENTAL HEALTH AMONG B40 POPULATION IN PUBLIC
WORK DEPARTMENT QUARTERS, JALAN SUNGAI BESI, KUALA
LUMPUR AND ITS ASSOCIATED FACTORS***

GROUP 1

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LUMPUR
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by

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ABSTRACT

Introduction: Mental health is one of the global issues. To this date, Malaysia records increasing cases of mental health conditions and it involves every generation regardless of the sociodemographic such as living income. Malaysia consist of three classifications of income, i.e. Bottom 40% (B40), Middle 40% (M40) and Top 20% (T20). Among these 3 categories, B40 population which define those who have income less than RM4850 is more susceptible to psychological distress as compared to others. This condition is alarming as it could cause severe circumstances and lead to death. Therefore, study on positive mental health is important to develop a preventive measure in avoiding mental health issues in this population. The aim of this study is to describe the sociodemographic characteristics, positive mental health, general coping mechanism and accessing factors associated with positive mental health among B40 population in Malaysia specifically in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. **Methodology:** A cross sectional study based on cluster random sampling was conducted among residents aged 18 years old and above, residing in Public Work Department Quarters, Jalan Sungai Besi, Kuala

Lumpur. Data was collected using the 47-item positive mental health instrument (PMH-I) assessing on six domains of mental health which are general coping (GC, 9 items), emotional support (ES, 7 items), spirituality (7items), interpersonal skills (IS, 9 items), personal growth and autonomy (PGA, 10 items),and global affect (GA, 5 items), as well as sociodemographic data of individuals with self-administered questionnaire. All data collected was analysed using IBM Statistical Package for Social Science (SPSS) version 26.0, involving descriptive analyses and statistical tests such as Kruskal Wallis test and Spearman's correlation test for association. **Results:** There were a total of 147 eligible respondents residing in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur including 135 Malay (91.8%), 5 Chinese (3.4%) and 7 Indian (4.8%), consented and returned completed questionnaires (86% response rate). There were significant correlations observed in total PMH and domain specific scores across sociodemographic characteristics. Age, gender, ethnicity and religion were significantly associated with total positive mental health (PMH) scores as well as mixed domain specific scores. Educational level was only associated with IS and PGA, while household income and marital status were not significant with all scores. It was found that gender, ethnicity and religion had association with positive mental health, in which the p-value is less than 0.05 ($p=0.04$). **Conclusion:** These study revealed that positive mental health had association with gender, ethnicity and religion. However, age, educational level, household income and marital status were not associated with positive mental health among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Keywords: Positive mental health, B40 population, Socio-demographic factors, General coping, Emotional support, Spirituality, Interpersonal skills, Personal growth and Autonomy, Global affect

**KESIHATAN MENTAL POSITIF DALAM KALANGAN POPULASI
KUMPULAN B40 DI KUARTERS JABATAN KERJA RAYA JALAN
SUNGAI BESI, KUALA LUMPUR DAN FAKTOR YANG BERLAITAN**

oleh

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ABSTRAK

Pendahuluan: Kesihatan mental adalah salah satu masalah global. Sehingga kini, Malaysia mencatat peningkatan kes masalah kesihatan mental dan masalah ini melibatkan setiap generasi tanpa mengira sosiodemografi seperti pendapatan sara hidup. Malaysia terdiri daripada tiga klasifikasi pendapatan, iaitu Below 40% (B40), Middle 40% (M40) dan Top 20% (T20). Di antara tiga kategori ini, populasi B40 yang berpendapatan bawah RM 4850 lebih terdedah kepada tekanan psikologi berbanding yang lain. Keadaan ini amat membimbangkan kerana hal ini mendorong kepada keadaan yang berbahaya dan kehilangan nyawa. Oleh itu, kajian mengenai kesihatan mental yang positif adalah penting untuk mengetahui langkah pencegahan dalam mengelakkan masalah kesihatan mental dalam populasi ini. Tujuan kajian ini untuk menerangkan ciri-ciri sosiodemografi, kesihatan mental positif, mekanisme mengatasi masalah dan mengenal pasti faktor-faktor yang berkaitan dengan kesihatan mental positif dalam kalangan populasi B40 di Malaysia khususnya di Kuarters Jabatan Kerja Raya Kuala Lumpur. **Metodologi:** Kajian keratan rentas berdasarkan persampelan kluster secara rawak telah dilakukan dalam kalangan penduduk berumur 18 tahun ke

atas, yang tinggal di Kuarters Jabatan Kerja Raya Kuala Lumpur. Data telah dikumpulkan menggunakan instrument *positive mental health instrument* (PMH-I) 47 item yang menilai enam domain kesihatan mental positif yang dapat mengatasi masalah umum (GC, 9 item), sokongan emosi (ES, 7 item), kerohanian (7 item), kemahiran interpersonal (IS, 9 item), pertumbuhan dan autonomi sendiri (PGA, 10 item), dan pengaruh global (GA, 5 item), serta data sosio-demografi individu dalam tinjauan dalam talian. Semua data yang dikumpulkan telah dianalisis menggunakan *IBM Statistical Package for Social Science* (SPSS) versi 26.0, yang melibatkan analisis deskriptif dan kajian statistik seperti ujian Kruskal Wallis dan ujian Spearman's correlation. **Keputusan:** Seramai 147 orang penduduk di Kuarters Jabatan Kerja Raya Kuala Lumpur termasuk 135 orang penduduk berbangsa Melayu (91.8%), 5 orang penduduk berbangsa Cina (3.4%) dan 7 orang penduduk berbangsa India (4.8%), bersetuju dan menjawab borang soal selidik (86% kadar respons). Hubungan yang ketara dikenal pasti antara ciri-ciri sosiodemografi jumlah skor kesihatan mental positif termasuk juga pelbagai skor domain. Umur, jantina, etnik dan agama merupakan antara faktor yang mempengaruhi jumlah skor kesihatan mental positif dan juga beberapa skor domain yang lain. Peringkat kelulusan akademik hanya memainkan faktor yang penting dalam IS and PGA, manakala pendapatan seisi rumah dan status perkahwinan tidak mempengaruhi mana-mana skor. Selain tu, kajian mendapati bahawa jantina, etnik dan agama ada berkait dengan kesihatan mental positif. **Kesimpulan:** Kajian ini mendedahkan bahawa kesihatan mental positif ada berkaitan dengan jantina, etnik dan agama. Namun begitu, umur, tahap pengajian, pendapatan bulanan dan status perkahwinan tiada perkaitan dengan kesihatan mental positif dalam kalangan populasi B40 di Kuarters, Jabatan Kerja Raya, Kuala Lumpur.

Kata Kunci: Kesihatan mental yang positif, populasi B40, Faktor sosio-demografi, Kemahiran mengatasi secara umum, Sokongan emosi, Kerohanian, Kemahiran interpersonal, Perkembangan diri dan autonomi, Pengaruh global.



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LIST OF ABBREVIATIONS

PMH: Positive Mental Health
GC: General Coping
ES: Emotional Support
S: Spirituality
IS: Interpersonal Skills
PGA: Personal Growth and Autonomy
GA: Global Affect
B40: Bottom 40%
M40: Middle 40%
T20: Top 20%
QOLS: Quality of Life Scale
MOH: Ministry of Health Malaysia
WEMWBS: Warwick-Edinburgh Mental Well-being Scale
WHOQOL: World Health Organization Quality of Life Instrument

CHAPTER 1

INTRODUCTION

1.1 Background

Malaysian consists of multiracial population, and the population has been divided into three classifications based on income, which are Bottom 40% (B40), Middle 40% (M40) and Top 20% (T20). B40 are those who have income less than RM 4850, while T20 for those who have income at least RM 10791 and M40 are people who have income between two other categories (Department of Statistics, Malaysia, 2020). Between three groups, B40's mental health is more concerned, as they are more susceptible to psychological distress than the other population based on a study that reported lowest economic status is associated with the highest degree of unhappiness (Chan et al., 2019). Another study by Eaton, and Muntaner (1999) has reported a higher risk of mental disorders in lower family income population than higher income category. Low socioeconomic status in the family also leads to high risk of developing depression in the later stage of life of the children (Ritsher, et al., 2001).

There are many factors that are associated with mental health among the B40 population. Srivastava (2011) has stated that definition of mental health, which is a person's ability to lead a normal life and socialise despite facing stress. Socioeconomic status which includes education and income status also contribute to a person's ability to cope with their normal life. In a study by Jokela, et al. (2013) reported that income, occupation and education influenced the health score, with better status leading to better health. Similarly, in Finland, the low-income group also has the strongest degree of association with common mental disorders despite genders.

Although low socioeconomic status is highly associated with common mental disorders, developing mental illness can still be avoided. Individual opinion on his status could prevent from distorting mental health (McLaughlin, et al., 2012). In mental health disorders, it is crucial to investigate all sources that contribute to mental health including positive mental health (Keyes, 2009). Mental health illnesses could be reduced by understanding healthy people's potentially significant insights that promote resilience (Lyons, Pitts, & Grierson, 2013). Therefore, positive mental health is important to be studied further in the way preventing mental health problems, as it is proven that high score of positive mental health reduce the risk of developing mental disorders (Keyes, Dhingra, & Simoes, 2010) and have better physical health (Chida & Steptoe, 2008; Keyes, Dhingra, & Simoes, 2010).

Positive mental health is based on hedonic and eudaimonic components (Keyes, 2009). Happiness and positive effects of positive mental health is related to hedonic component, and eudaimonic component consist of daily function (Lyons, Pitts, & Grierson, 2013). Identifying associated factors to positive mental health is crucial and could help to achieve greater well-being of society.

1.2 Problem Statement

Mental health problems among people worldwide are reported to have a high prevalence. Approximately 792 million people experienced mental health illness which is around 10.7% of the population (Ritchie & Roser, 2018). This shows a huge increase of cases from 2001 where 450 million people suffer from this illness. (World Health Organization, 2001). The statistics from National Health and Morbidity Survey shows that mental health problems among adults in Malaysia aged 16 years and above is increasing. It is reported that the prevalence rises extensively from 10.7% in 1996, to 11.2% in 2006, to 29.2% in 2015 (Institute for Public Health, 2015). Thus, based on recent prevalence, every thirty in hundreds of adults aged 16 and above will have the probability to have mental health issue(s). This means that 6.84 million out of 22.82 million Malaysians aged 16 and above will have the tendency to suffer from mental health conditions. This is frightening as mental health illness can cause people to lose their life and well-being. Based on the prevalence, there are 8 million people die each year due to mental illness. (Walker, McGee & Druss, 2015).

Mental health conditions cause a huge impact in people affected by the disease and people around them. These conditions disrupt the quality of life, emotions and behaviour of those affected. Technically, there is an instrument called Quality of Life Scale (QOLS) that measures the quality of life of chronic illnesses (Burckhardt & Anderson, 2003). The result shows that the negative impact on mental health patients are not only substantial but sustained (WHO, 2001). The World Health Organization reported that mental health issues make up to 16% of the global burden of disease and injury in the age of 10 to 19 years old. A study shows that median reduction of life expectancy among those with mental illness was 10.1 years (range from 1.4 to 32

years). During the Eleventh Malaysia Plan (11MP 2016-2020), 2.7 million households of B40 (mean monthly income of RM2, 537.00), comprises of 68% Bumiputera (locals) and 32% non-Bumiputera (non-locals); and 56% in urban and 44% in rural areas (Shahar, Lau, Puteh, et al., 2019) Adults from low household income families were having higher prevalence of mental health illness as compared to high income families. (Institute for Public Health, 2015). Eaton and Muntaner (2018) has reported a higher risk of mental disorders in lower family income population than higher income category. Low socioeconomic status in the family also leads to high risk of developing depression in the later stage of life of the children (Ritscher, et al., 2001). The issues that rise up among the low-income group of B40 are the socioeconomic problems, health and food deficit. (Shahar, et.al., 2019).

Apart from that, people who are suffering from mental health disorder are more likely to have low positive mental health. As a study reported that positive mental health is associated with mental status. Person having lifetime mental disorder such as mood or anxiety disorder had a significantly lower positive mental health score although changes of sociodemographic factors have been taken (Vaingankar et. al., 2020).

Therefore, positive mental health or good mental health can be seen as a protective factor against mental health illnesses. However, to date in Malaysia, current studies about positive mental health as compared to dissertations conducted on mental health issues are lacking and far behind other countries. The Ministry of Health has reported that data on the prevalence of mental health in Malaysia are limited. The most substantial survey being carried out every 4 years was the National Health and

Morbidity Survey (NHMS). To top on that, there is a shortage of research on positive mental health specifically among B40 groups in Malaysia.

Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur is chosen to be the study location because the residents of the quarters consist of B40 population which is the main criteria of the study population. Apart from that, the study location is located in the urban area which several studies have shown that people living in this area are more likely to experience mental health issues as compared to rural areas. For instance, there are a lot of facilities and accommodations needed to grow in relation to urbanization. The shortage of infrastructure will increase the chance of poverty and exposure to difficulties. These show the association of urbanization to mental disorders is high (Srivastava, 2009).

1.3 Significant of Study

Therefore, venturing into this study will be beneficial to the respondents, community, workers as well as the country, Malaysia. From the study population side of view, this study is to ascertain the factors that are associated with positive mental health among the B40 population in Malaysia. The result of the study will help the employer of the B40 workers living in the Public Work Department Quarters, to provide a better working environment or necessities for the employee regardless of the residents' occupation.

Apart from that, the study of factors associated with positive mental health among B40 population is crucial because it emphasizes key elements for the stakeholders such as the District Health Office, State Health Department and Ministry of Health Malaysia (MOH) to help to develop interventions, programs and policies to lessen mental health problems besides improving life expectancy of the community in Malaysia. On top of that, this will facilitate or impede the implementation of integrated mental health care in the country.

1.4 Research Questions

- i. What are the sociodemographic characteristics (age, gender, level of education, income/household income, ethnic group, religion) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur?
- ii. What is the positive mental health scores (total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global affect) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur?
- iii. What are the factors associated with positive mental health among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur?

1.5 Research Objectives

1.5.1 General Objective

To study the positive mental health among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur and its associated factors.

1.5.2 Specific Objectives

- i. To describe the sociodemographic characteristics (age, gender, level of education, income/household income, marital status, ethnic group, religion) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.
- ii. To describe the positive mental health (total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global effect) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.
- iii. To determine the association between sociodemographic characteristics (age, gender, level of education, income/household income, marital status, ethnic group, religion) and positive mental health(total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global affect) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

1.6 Research Hypothesis

1.6.1 Null Hypothesis

There is no significant association between sociodemographic characteristics with positive mental health (total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth and autonomy, global affect).

1.6.2 Alternative hypothesis

There is a significant association between sociodemographic characteristics with positive mental health (total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global affect).

CHAPTER 2

LITERATURE REVIEW

2.1 Prevalence of Mental Health Problem

2.1.1 Prevalence of Mental Health Problem Globally

According to the World Health Organization in 2001, a quarter of the world population were suffering from mental health issues in their life. The share of global populations across different countries in the world, it is estimated that 1 out of 10 people (10.2%); relatively 792 million people lived with a mental health disorder in 2017. According to gender, the prevalence of cases among females were higher compared to males by more than 2%. (Ritchie & Roser, 2018).

In 2018, the prevalence of 19.1% of adults aged 18 and above equal to 47.6 million people experienced any mental illness (AMI) in the United States. Approximately, 11.4 million adults in the country had a serious mental illness (SMI) . The amount of people affected by both AMI and SMI in 2018 escalated gradually from the year 2008 till 2016 as compared to 2018 with the corresponding 2017 (Substance Abuse and Mental Health Services Administration, 2019).

Prevalence of mental health issues at Pune, Maharashtra was 5.03% in 2011. Based on the study, depression was ranked the highest (3.14%) before substance use disorder (1.39%) and panic disorder (0.86%) (Deswal & Pawar, 2012).

2.1.2 Prevalence of Mental Health Problems in Malaysia

Mental health conditions among Malaysians mark a gradual increase each year. In 1996, the predominance of Malaysian adults aged 16 and above who lived with mental health problems was 10.7%. The data was rising up to 11.2% in 2006 and to the present study (recorded in 2015), the prevalence of adults in Malaysia with these issues is 29.2%. There is no significant difference in the prevalence between the states in regard to the issue. Sabah and WP Labuan have the highest prevalence (42.9%) followed by WP Kuala Lumpur (39.8%), and Kelantan (39.1%). By gender side of view, the prevalence of cases among females is higher, at 30.8% compared to males, at 30.4%.

By occupational orientation, government and semi- government workers were found to have the lowest prevalence with 2.6%. Self- employed and unpaid workers/ home makers have similar prevalence, 30.3 and 30.5 respectively. The result of the survey also concludes that adults from low income families predominate to have higher cases of mental health, as contrasted with higher income families (National Health and Morbidity Survey, 2015).

Depression is the most common mental illness in Malaysia. Firdaus Mukhtar and Tian P. S. Oei reported that the prevalence of depression in primary care units was extending from 6.7% to 14.4% while the cases reported in clinical units ranged from 3.9% to 46% in 2011.

2.2 Positive Mental Health (PMH)

2.2.1 Definition

World Health Organization (WHO) has proposed mental health to be more than just the absence of disorders, and mental health is defined as ‘a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community’ (WHO, 2004). Mental health definition has been agreed to consist of individualistic and societal aspects (WHO, 2004; Picco et al., 2017).

The definition gives the concept of positive mental health. Positive mental health was explained by Vaingakar et al. (2012) as “ability to build and maintain relationships, to have active coping and interpersonal skills, provide and receive emotional support, pursue personal growth and autonomy, and participate in religious and spiritual practices”. Positive mental health is defined as combination of eudaimonic and hedonic wellbeing (Ryan & Deci, 2001; Keyes, 2009) and also included social perspective (Picco et al., 2017). These perspectives are important to be considered to measure total PMH scores, hence they will be included in the instrument.

Therefore, positive mental health is a skill a person could have to promote resilience against developing mental illness and is crucial in daily life to keep healthy physically, emotionally and socially.

2.2.2 Domains

There are six domains of mental health that are applicable for Singapore population; general coping, emotional support, spirituality, interpersonal skills, personal growth and autonomy and global affect (Picco et al., 2017; Galderisi et al., 2015; Vaingankar et al., 2011). Singapore's population consists of multiracial people, which is almost similar to Malaysia's population. Singaporean also have an identical socio demographic characteristic to Malaysian.

First domain of mental health is general coping that is the ability of a person to be flexible with hard situations and Klanker, Feenstra and Denys (2013) explain that stress and mental illness could be developed in low coping ability. Secondly, emotional support is a crucial dimension for mental health (Gross and Muñoz, 1995) and it has links and has influence on clinically assessment (McCarthy et al., 2006; Barlow, 2004). Next is spirituality which indicates a person's belief about God. After that, interpersonal skills that consist of basic cognitive and social skills for day-to-day functioning. Mental health also involves personal growth and autonomy that refer to self-determination and ability to learn new things. Lastly, global affect is related to the calmness and harmonious mind of a person.

2.3 Positive Mental Health Instrument

2.3.1 Ryff's Psychological Well-being Scale

Ryff's Psychological Well-being Scale is one of the instruments that is widely used to measure positive mental health. The scale consists of 42 items that have an eudaimonic component (Ryff, 1989), and it follows the six domains of mental health. Villarosa and Ganotice (2018) prove that Ryff's Psychological Well-being Scale is valid, and it has been used in their study on Filipino teachers. Another study by Lee and Ryff (2019) also uses the mandarin Psychological Well-being Scale on clinical nurses in Taiwan and it is found that this measure is reliable and valid. It is shown that this instrument has been used numerous times in previous studies and has many adaptations.

2.3.2 The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) that has been developed in Europe, is used in many studies involving various populations including clinical trials for treatment (Schrack et al., 2015; Spittlehouse et al., 2014; Stranges et al., 2014; Maheswaran et al., 2012). This instrument has been proved their reliability and validity with score 0.83 (high) in a test-retest reliability at one week and high correlations with other well-being scale, but it only has assessment focus on positive aspects of mental health (Tennant et al., 2007), plus, it is used mostly based on Western population and less psychometric properties on mental illness been studied (Vaingankar et al., 2016).

2.3.3 World Health Organization Quality of Life Instrument (WHOQOL)

World Health Organization Quality of Life Instrument (WHOQOL) has been widely used and translated to other languages such as Turkish, Spanish and Portuguese. It also exists in brief and short form (Cruz et al., 2009). There are studies that reported this instrument is acceptable and valid and can be used to measure the wellness of a person (Reba, Birhane & Gutema, 2019). Besides that, it also has been used for the disabled (Eser et al., 2018; Bredemeier et al., 2014; Gothwal, Srinivas, & Rao, 2013). However, Reba, Birhane and Gutema (2019) also reported that the social health domain in this instrument has low Cronbach's alpha coefficients suggesting lower internal consistency. Despite that, they also explain that this instrument is still valid and could be used for study purposes.

2.3.4 Positive Mental Health Instrument in Singapore

This instrument is developed to provide appropriate assessment on mental health for Singapore's multi-ethnic population based on their community and their cultural aspects (Vaingankar et al., 2011). This instrument is 47-item scale with six-point Likert style response scale focus on six domains of mental health (Vaingankar et al., 2016; Vaingankar et al., 2011). The instrument has previously been used in a study on positive mental health among health professionals in Singapore and its validity has been approved locally (Picco et al., 2017). There are also psychometric studies on patients with mental disorders by Vaingankar et al. (2016) reported. This instrument proves to be reliable and valid based on the Cronbach's alpha is 0.96 (high) with each domain also showing high results respectively and its goodness-of-fit indices proved to be a satisfaction (Picco et al., 2017; Vaingankar et al., 2016; Vaingankar et al., 2011).

2.4 Factors Associated with Positive Mental Health

There are several factors that lead to positive mental health among the B40 population. Positive mental health (PMH) is a combination of emotional, psychological, and social well-being that is needed for people to be mentally healthy (Vaingankar et al, 2012). Poverty increases the risk of mental health illnesses. Mental health is determined by the broad ranging characteristics including inequalities of the social, economic and physical environments in which people live. Younger ages with higher educational levels were found to have better recognition of specific mental disorders (Chong et al, 2016).

2.4.1 Sociodemographic Characteristics

Sociodemographic characteristics include age, gender, household income, education, living area, occupations, religion and ethnicity. Different index variables are formed on the basis of sociodemographic variables. Meanwhile, a study in Singapore has shown that sociodemographic differences in attitudes towards the positive mental health were found among youths living in Singapore. A Positive Mental Health Instrument was used to estimate the level of Total Positive Mental Health among the respondents with and without mental disorders among the B40 population.

2.4.1.1 Age

A good mental health begins in infancy. There are few mental health illnesses that commonly occur in older people which are depression, delirium, anxiety and late onset schizophrenia. Mental health and social care services need to be carried out in order to control growing numbers of elderly with mental illnesses. Academic stress plays a major role in determining the positive mental health of students. For example,

university years of an individual are more demanding than other stages of education. At this stage, university students will face many pressures with a variety of physical, social and emotional difficulties (Rodgers & Tennison, 2009). To support the statement, adolescents, young adults as well as adults can have an association with poor positive mental health. However, the effect of age by gender difference shows insignificant association with positive mental health (Fernandes et al, 2012).

2.4.1.2 Gender

The 2015 'Monitoring Poverty and Social Exclusion' report's comparison of data between 2005 and 2012 found that a greater proportion of women were assessed as being at high risk of mental health problems compared to men. In Iceland, levels of depression and anxiety increased from 2006 to 2016 among female adolescents, with males reporting no change or even reduced symptoms of anxiety over time (Thorisdottir et al, 2017). Nevertheless, men may develop alternative disorders in response to stress, such as antisocial behaviour and alcohol abuse. To support this statement, studies have shown that expected gender differences in depressive disorders were balanced out by higher male rates of alcohol abuse and drug dependency than female.

2.4.1.3 Level of education

Education can help people to choose better health inputs by improving knowledge about health behaviours and health outcomes (Avendano et al, 2017). Education may affect mental health via its impact on workforce outcomes, as increased income may make healthy goods more affordable and more educated people work in a safer environment (Cutler & Lleras-Muney, 2010). Research in Canada states that in every

service sector, individuals with higher levels of education are more likely to receive services than those with low levels of education.

2.4.1.4 Income

Income is really crucial for an individual's well-being. A new review of research on families living on a low income found that the recent recession has generated more burdens for parents in these circumstances, including increased time pressures, a decline in nutrition, and higher stress levels (Mountney,2012). The low-income population in Malaysia is at risk of malnutrition. For example, the Covid-19 pandemic had greatly affected the low-income families in all over the world including Malaysia. Covid-19 outbreak put strain on household debt. Rising level of household debt was a concern as it is a potential risk to macroeconomic and financial stability (Dhesi, 2020).

2.4.1.5 Religion

Religion is a community-based system of beliefs which has a positive impact on mental health. Religious practices and beliefs are important in many countries around the world (Koenig & Larson, 2001). In Malaysia they are 4 main religions which are Islam, Buddhism, Hinduism and Christianity. All these religiosities reduce suicide rate, alcoholism, drug use and many more negative activities. People who really believe in their religions will surely have a stable and positive mental health (National Alliance on Mental Illness,2016).

2.4.1.6 Ethnicity

Culture and ethnicity have an association with positive mental health too. They are important to how the population understands the cause of mental illnesses. Different levels of positive mental health were also reported among Western, Asian and Asian Americans (Vaingankar et al,2013).

2.4.1.7 Marital Status

Marital status can be subdivided into single, married, separated, divorced, or widowed. Marriage is a social institution and its effects on mental health vary across societies. Divorce and remarriage result in short-term decreases in mental health. Remarriage positively affects mental health, but less than first marriage. Never-married people are emerging groups of interest, with research suggesting that effects vary by social norms (Spiker et al., 2014). Increased rates of depression and anxiety have been shown earlier in school-aged children of divorce (Agnafors et al., 2019). Similarly, in a study in Thailand, the divorced, widowed and separated show a lower mean score (31.5) in Thai Mental Health Indicator compared to single (32.1) and married (32.6) (Yiengprugsawam et al., 2012). Moreover, single parents, especially single mothers seem to experience increased levels of stress, anxiety and depression, face more socioeconomic difficulties as compared to married couple families (Kim, G. E et al., 2018).

2.4.1.8 Living area

Living area was categorised into urban and rural residential. Housing and neighbourhood conditions are important for positive mental health. Crowded living in urban and rural areas has been associated with mental stress among women aged 25 to

45 in London as well as living with temporary housing has been shown to cause attitude problems among children (Krieger& Higgins,2018). Thus, this showed that living in a crowded area might have poor positive mental health among residents. Furthermore, a new study has shown that living near to the coast may be beneficial to mental health among England's lowest-income communities.

2.4.2 Other factors

2.4.2.1 Self-esteem

People with high self-esteem will have a positive outlook and most of the time are satisfied with themselves. Studies have suggested positive relationships between self-esteem and behavioural factors for African American adolescents, such as lower delinquency rates in the country (Trzesniewski et al,2018). Self-esteem was significantly inversely proportional with depressive symptomatology in United Arab Emirates (Shah, S. M et al,2020). Children in low income families suffer shame and low self-esteem.

2.4.2.2 Physically ill health

Diseases, trauma and other physical problems often contribute to poor mental health and sometimes mental illness. A higher prevalence of depressive symptoms among girls compared to boys due to their hormonal changes and many other issues. For example, the risk of late detection of cardiovascular diseases risk factors and consequent worse health outcomes is higher among people from low socioeconomic groups due to poor access to health care. This will lead to poor mental health.

2.4.2.3 Presence of children

Parental stress and mental health are also affected by household food insecurity. Mothers of preschool-aged children were more likely to experience generalized anxiety disorder and major depressive episodes as level of food insecurity increased (Maynard, M et al.2018). The children may be malnourished, lethargy and difficult to concentrate in studies. These children suffering from poverty in preschool and school periods tend to have a lower successfulness in school(Banovcinova et al,2018).

2.4.2.4 Smoking

There were more men that smokes than women (27% vs 25.6%) while there were more women that do not smoke than men (73% vs 74.4%) (Davoren et al, 2013).

However, both of the gender has the same mean WEMWBS scores in relation to smoking status. In the UK, smoking rates among adults with depression are about twice as high as among adults without depression. People with depression certainly have difficulty when they try to stop smoking and have more severe withdrawal symptoms during attempts to give up.

2.4.2.5 Alcohol consumption

Alcohol can disturb the balance, affect the person's thoughts and eventually mental health. Alcohol use and alcohol-related consequences are highly prevalent in Vietnam. Lower socioeconomic households, especially in rural areas, are important target groups for alcohol-related harm prevention and reduction interventions (Hanh, . et al,2019).

2.4.2.6 Drug Use

Chronic use of some drugs can lead to both short- and long-term changes in the brain, which can lead to mental health issues including paranoia, depression, anxiety, aggression and other problems. In this study, there were more men that consumed drugs illegally than women (40.4% vs 26.4%) and more women that did not consume drugs illegally than men (73.6% vs 59.6%). The mean WEMWBS scores for men and women were the same in relation to drugs. According to reports published in the Journal of the American Medical Association, roughly 50 percent of individuals with severe mental disorders are affected by substance abuse. With 37 percent of alcohol abusers and 53 percent of drug abusers have at least one serious mental illness.

2.4.2.7 Occupation

Occupations are an essential necessity in life. By doing the jobs, people can improve the country's economy besides having great therapeutic qualities for mental illness. Moreover, people with no previous history of mental health problems may develop them as a result of having to cope with the ongoing stress of job insecurity and the impacts of loss of employment. Permanent unemployment is a real threat to people's mental health. Participation in everyday occupations of life is vital for human development and lived experience. (Law et al, 2002).

2.5 Conceptual Framework

Conceptual framework represents ways of thinking about a problem. The purpose is to make research findings meaningful and generalizable. Below is the conceptual framework of factors associated with positive mental health among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. Sociodemographic characteristics for instance are age, gender, level of education, income/household income, marital status, ethnic group and religion are the main independent variables that this study will study. Other independent variables are living area, presence of children, occupation, previous adverse effect, smoking and alcohol consumption. The dependent variable is the positive mental health which consist of general coping, emotional support, spirituality, interpersonal skills, personal growth& autonomy and global affect.

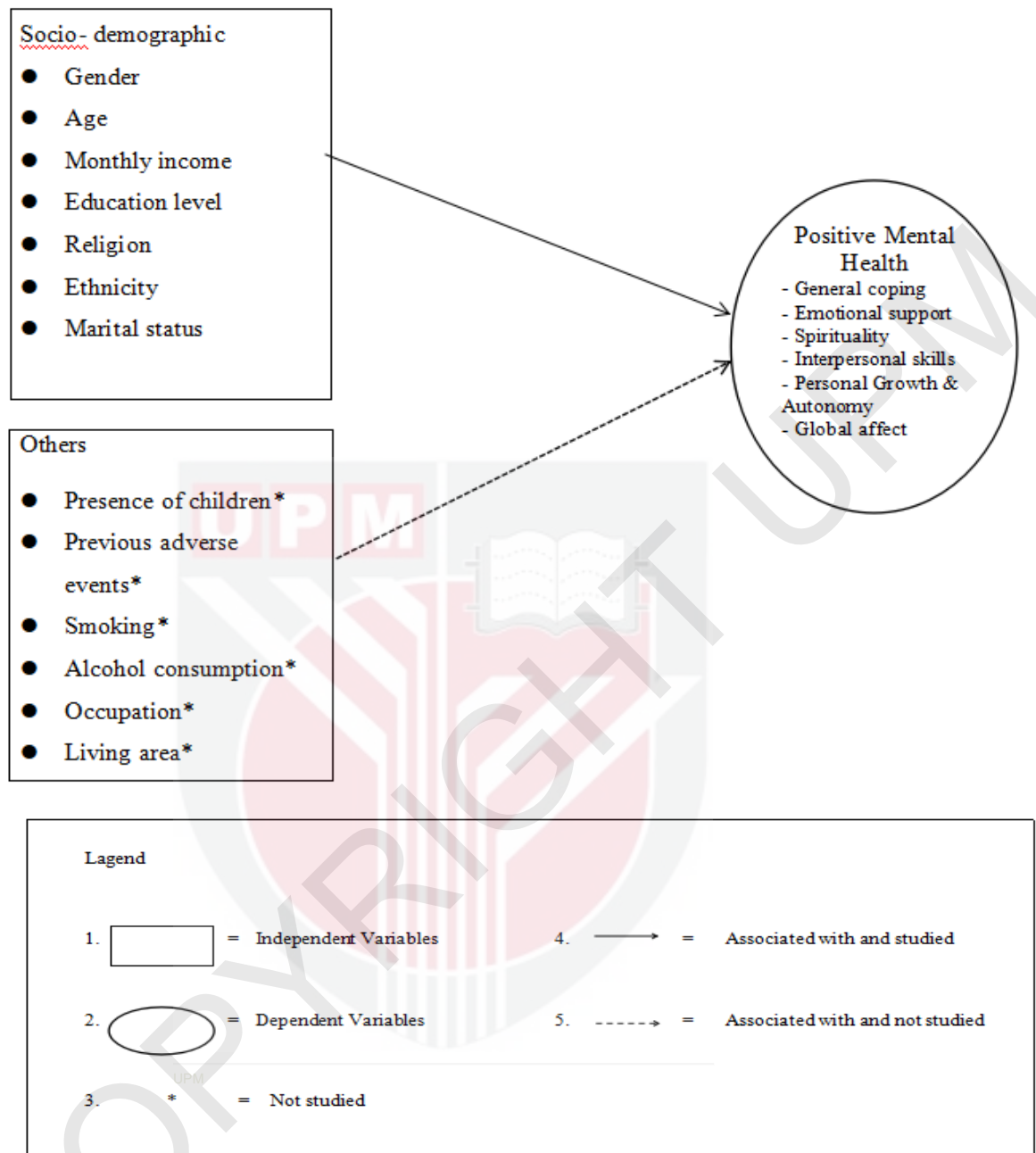


Figure 2.1. Conceptual Framework of Positive Mental Health among B40 Population and its Associated Factors

CHAPTER 3

METHODOLOGY

3.1 Study Location

This study was conducted in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. This study location was chosen because the residents are accessible and contactable and it is in the capital city of Malaysia, Kuala Lumpur which is in the middle of urbanization. A study shows that people in urban areas are more likely to experience mental health problems. The quarters' residents consist of B40, M40 and T20 group of population. The residents of the quarters are workers of Federal Workshop of Public Work Department and General Maintenance and Ceremony of Public Work Department in Kuala Lumpur. Most of the residents are the workmen of the department. The study location is near to the Salak Selatan town. The quarters consist of two different types of blocks. The first type has three similar blocks with eight units. The second type has one tall and big block with 60 units. All the units come with three bedrooms, two bathrooms and have other facilities such as a nursery, futsal court, hall, playground and 209 parking lots. Besides, there are five rows of terraced houses in the quarters area which are tenanted by the workmen or the truck or lorries drivers. Each terraced house has two bedrooms and one bathroom. The majority of residents are Malay and Muslim.

3.2 Study Duration

The study started from 27th April 2020 until 9th October 2020. This period includes preparation of proposal paper, proposal presentation, data collection, analysis and presentation, and final presentation or seminar.

3.3 Study Design

A cross-sectional study was used using data collected by self-administered questionnaires.

3.4 Study Population

The study population was residents in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

3.5 Sampling population

3.5.1 Inclusion Criteria

- 1) Household income less than RM 4850
- 2) Aged 18 years old and above
- 3) Malaysian
- 4) Able to read Malay or English language

3.5.2 Exclusion Criteria

- 1) Mentally ill residents who are diagnosed by doctors because it will be hard to respond to the questionnaire correctly.
- 2) Chronic disease residents who are diagnosed by doctors because they might be depressed thus hard to answer the questionnaire.

3.6 Sampling Frame

The sampling frame consists of 180 houses numbers representing 180 units in the quarters.

3.7 Sampling Unit

A respondent in B40 income group from selected 60 houses in the Public Work Department Quarters, Kuala Lumpur.

3.8 Sample Size Estimation

The sample size for this study was calculated using formula to compare mean between 2 independent groups (Allen, 2011).

$$N = 2\sigma^2 [Z_{1-\alpha/2} + Z_{1-\beta}]^2 / (\mu_1 - \mu_2)^2$$

N = sample size estimate

σ = pooled of standard deviation = 0.70

$Z_{1-\alpha/2}$ = standard error associated with 95% confidence interval = 1.96

$Z_{1-\beta}$ = standard error associated with 80% power = 0.84

μ_1 = estimated mean for Chinese (Picco et al., 2017) = 4.37

μ_2 = estimated mean for Malay (Picco et al., 2017) = 4.82

$$N = 2(0.70)^2 (1.96 + 0.84)^2 / (4.37 - 4.82)^2$$

N = 83 is minimum required a sample size calculated

Calculating for two groups; $N = 83 \times 2 = 166$

Adjusting for non-response of 3% (Aldawood, 2019); $N = 103/100 \times 166 = 171$

Total sample size calculated is $N = 171$

The sample size calculation for other variables is shown in the Appendix C.

This calculation is using data from a previous study by Picco et al. (2017) as the study is conducted in Singapore which has the same sociodemographic characteristics with this study, hence it helps in determining the best possible sample size estimation.

3.9 Sampling Technique

The sampling technique used was a cluster random sampling. 60 units were randomly selected from the quarters using online number generator based on assumption each unit has three adults. The adults who consented to participate in the study were given a self-administered questionnaire. The questionnaires which were answered by adults in B40 income group were chosen to proceed with data analysis.

3.10 Variables

3.10.1 Dependent Variables

The dependent variable in this study is positive mental health among the B40 population. 60 houses were randomly selected from the quarters. Those who fulfil the inclusion criteria were chosen.

3.10.2 Independent variables:

Sociodemographic characteristics

1. Age
2. Gender
3. Level of education
4. Household income
5. Ethnic group
6. Religion
7. Marital Status

3.11 Study Instrument

The study instrument consisting of Section A and Section B was used in this study. Section A is sociodemographic characteristic questions and Section B is an adopted questionnaire that was used in this research to determine the factors associated with positive mental health was developed and validated in Singapore (Vaingankar et al,2011). The instrument is a 47-item instrument with 42-item using six point Likert style response (1 = not at all like me, 2 = very slightly like me, 3 = slightly like me, 4 = moderately like me, 5 = very much like me, 6 = exactly like me) and 5-item using five point response (1 = never or very rarely, 2 = rarely, 3 = sometimes, 4 = often, 6 = very often or always) based on six domains; general coping (GC, 9 items), emotional support (ES, 7 items), spirituality (7 items), interpersonal skills (IS, 9 items) personal growth and autonomy (PGA, 10 items) and global affect (GA, 5 items). The study instrument is shown in Appendix E. The positive mental health scores were calculated based on Table 3.1 below. The final score is range from one to six. The higher the score indicates better positive mental health.

Table 3.1 PMH Scores Calculation

	1. Add recoded item* scores for item numbers listed below	2. Divide by
Total PMH	All the recoded items	47
General Coping	1,2,3,5,6,7,9,10,11	9
Emotional Support	12,13,17,19,20,21,22	7
Spirituality	14,34,35,36,37,39,40	7
Interpersonal skills	16,23,24,25,27,28,30,31,32	9
Personal Growth and Autonomy	41,42,43,44,46,47,48,49,50,52	10
Global Affect	53,54,55,56,57	5

Scores range from 1(lower PMH) to 6 (higher PMH)

*Recode items as below:

Item numbers 53-57

1 = 1
2 = 2.25
3 = 3.5
4 = 4.75
5 = 6

Item numbers 4, 8, 15,
18, 26, 29, 33, 38, 45, 51

1 = 0
2 = 0
3 = 0
4 = 0
5 = 0
6 = 0

For rest of the items

1 = 1
2 = 2
3 = 3
4 = 4
5 = 5
6 = 6

3.12 Quality Control

The questionnaire is validated (Comparative fit indexes (CFI) = 0.95-0.96, Tucker Lewis Index (TLI) = 0.95-0.96, Root Mean Square Error Approximation (RMSEA) = 0.05-0.06) and reliable (Cronbach's alpha = 0.96) according to research conducted by Vaingankar et al. (2011), however it was re-evaluated for its content validity, face validity and reliability in this study.

3.12.1 Face Validity

The test was carried out among 6 respondents with the same sociodemographic characteristics and not included in the study population. A few categories were added to the choices of answer in Section A such as 'divorced'. Most of them commented that the questionnaire is appropriate and easy to understand.

3.12.2 Content Validity

The questionnaire was validated by Prof. Madya Dr. Rosliza Abdul Manaf and Dr. Ahmad Iqmer Nashriq Mohd Nazan. The content is agreed, and context is upon to be agreed, however a few typo errors were detected, and the sentence structures were corrected.

3.12.3 Reliability

The questionnaire had good reliability (0.96) as reported by Vaingankar et al. (2011). The alpha coefficients for each domain were also well (General coping = 0.89, Personal growth and autonomy = 0.93, Spirituality = 0.94, Interpersonal skills = 0.89, Emotional supports = 0.89, Global affect = 0.89) (Vaingankar et al., 2011). Upon test, the Cronbach alpha was used to analyse via SPSS for reliability of the questionnaire and the questionnaire was proven having excellent reliability (0.92).

3.13 Data Collection Method

Data collection was conducted using a self-administered questionnaire in the quarters. The questionnaire booklets were distributed to each unit in the morning which is during working hours and was collected by hand in the evening of the same day. The results were collected after respondents submitted the questionnaires.

3.14 Data Analysis Strategy

Data was analysed using IBM Statistical Package for Social Science (SPSS) version 26.0. Descriptive statistics was used to describe the characteristics of the respondents. Normality tests were done for continuous data. In all statistical analyses, a 'p' value of < 0.05 (95% confidence interval) was considered to be statistically significant.

Table 3.2 Statistical Test According to Study Objectives

No.	Objective	Statistical testing
1	To describe the sociodemographic characteristics (age, gender, level of education, income/household income, marital status, ethnic group, religion) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur	Frequency and Percentage Median and Range (age)
2	To describe the positive mental health (total PMH scores, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global affect) among the B40 population in Public Work Department Quarters Jalan Sungai Besi, Kuala Lumpur.	Mean and standard deviation
3	To determine the association between sociodemographic characteristics (age, gender, level of education, income/household income, marital status ethnic group, religion) and positive mental health (total PMH, general coping, emotional support, spirituality, interpersonal skills, personal growth, autonomy, global affect) among the B40 population in Public Work Department Quarters, Jalan Sungai Besi, Jalan Kuala Lumpur	Mann-Whitney U, Spearman's Correlation and Kruskal Wallis test

3.15 Ethical Consideration

An approval from the Ethical Committee for Research involving Human Subjects of Universiti Putra Malaysia (JKEUPM) was obtained prior to data collection with reference number; JKEUPM-2020-228. Moreover, a consent from each individual of the respondents was obtained prior to this study. Informed Consent Form is attached in Appendix A and Appendix B.

3.16 Operational Definition

3.16.1 Dependent Variables

Table 3.3 Operational Definitions of Dependent Variables

Dependent Variable	Operational Definition
Positive Mental Health	Positive mental health (PMH) is defined as a state of welfare where people are able to handle the stresses of life, work productively, realize own capability and make a contribution to a nation. Besides, PMH not merely absence of mental health problems but being mentally health is mainly about mental resilience and participating in life with fullest. (CBHS Health and Well-being) These will be measured by using adopted questionnaires from 'Positive Mental Health Instrument' developed by Ms. Vaingankar. The questionnaire evaluates on six domains of PMH, which are general coping, interpersonal skills, emotional support, spirituality, personal growth and autonomy, and global affect. The scoring for this questionnaire will follow the six point Likert style response (1 = 1, 2 = 2, 3 = 3, 4 = 4, 5 = 5, 6 = 6) while the five point style response will be scored as (1 = 1, 2 = 2.25, 3 = 3.5, 4 = 4.75, 6 = 6). Total PMH will be scored by the sum of all the re coded items divided by 47 items. General coping, interpersonal skills, emotional support, spirituality, personal growth and autonomy, and global affect will have specific item numbers respectively. The sum of specific recorded item scores divided by the numbers of items listed in the domain contribute to the score of the specific domain. The scoring is from 1 (lower PMH) to 6 (higher PMH).

3.16.2 Independent Variables

Table 3.4 Operational Definitions of Independent Variables

Independent Variables	Operational Definitions
Age	The participants are eligible if they are adults. WHO (2013) states that “an adult is a person older than 19 years of age unless national law defines a person as being an adult at an earlier age”. In Malaysia, based on the Age of Majority Act 1971, a person turns to be an adult at the age of 18 years.
Gender	The gender is divided into 2 categories, which are: 1. Male 2. Female
Educational level	The educational level is categorized into several groups, which are: 1. Primary School 2. Secondary School 3. Pre-University (STPM/STAM/Matriculation/Foundation/Diploma) 4. Undergraduate/ Degree 5. Postgraduate 6. No formal education (Clark, 2014)
Monthly income	There are 3 different income categories in Malaysia, which are: T20(Top 20): household income at least RM 10971 M40(Middle 40): household income at least RM 4851 B40(Bottom 40): household income less than RM 4850 B1: household income less than RM 2500 B2: household income from RM 2501 to RM 3170 B3: household income from RM 3171 to RM 3970 B4: household income from RM 3971 to RM 4850 (Department of Statistics, Malaysia, 2020)
Ethnicity	Races are divided into 4 categories, which are: 1. Malay 2. Chinese 3. Indian 4. Others (Department of Statistics, Malaysia, 2020)
Religion	Religion is sub-categorized into 5 major divisions, which are: 1. Islam

	2. Buddhism 3. Christianity 4. Hinduism 5. Others (Department of Statistics, Malaysia, 2020)
Marital Status	Marital status can be divided into 3 categories: 1) Single 2) Married 3) Divorce or widowed



CHAPTER 4

RESULTS

4.1 Response Rate

A total of 147 respondents responded to the self-administered questionnaire and had met both inclusion and exclusion criteria. All the questionnaires were returned completely answered. The study succeeded to reach above 80% of the response rate.

Response Rate $147/171 \times 100\% = 85.96\%$.

4.2 Normality Assumption

Table 4.1 shows the results of normality assumption for all the continuous variables. The assumption of normality was checked statistically to decide on parametric and non-parametric tests. Kolmogorov-Smirnov one sample test, skewness and kurtosis as well as distribution of histogram were used to determine the normality. The data were assumed to obey normal distribution based on insignificant p-value ($p > 0.05$) of Kolmogorov-Smirnov one sample test or skewness of 1.96 and a kurtosis of 3.0 or a symmetrical distribution of histogram. However, the variables were shown to have violated normality assumption. Thus, the analysis is proceeded with a non-parametric test.

Table 4.1 Normality Assumptions of Continuous Study Variable

Variables	Kolmogorov-Smirnov	Skewness ^a	Kurtosis ^b	Histogram	Normality Assumption
	Statistic (p-value)				
Age	0.106(<0.001)	0.228	-0.778	Right-skewed	Violated
Total positive mental health	0.084 (0.013)	-1.328	3.887	Left-skewed	Violated

^aStandard Error of Skewness = 0.097, ^bStandard Error of Kurtosis = 0.194

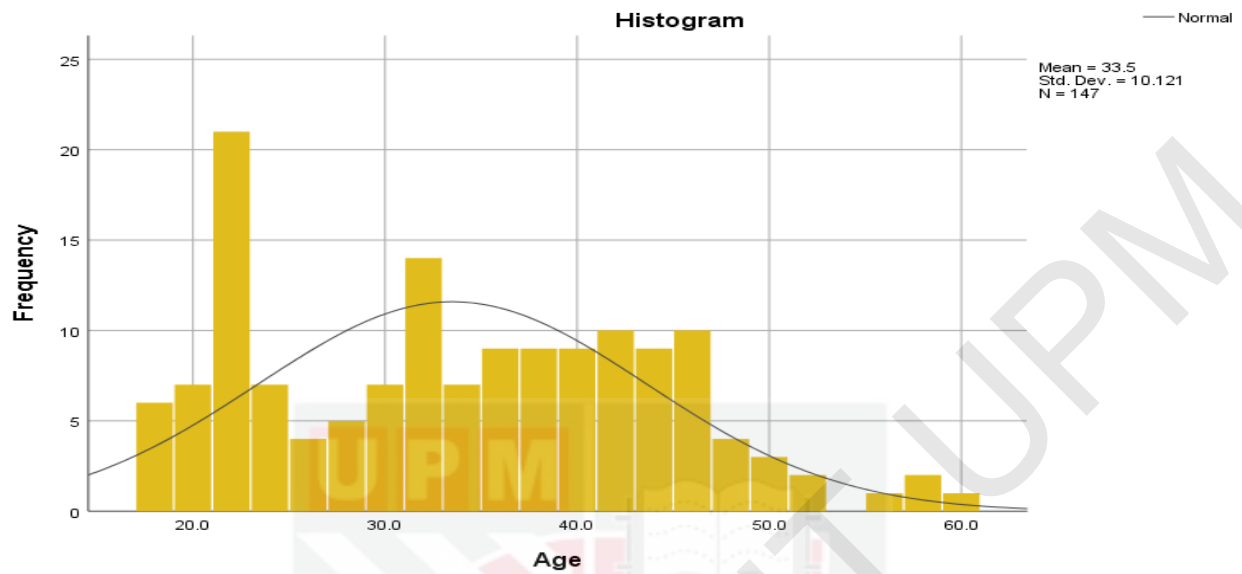


Figure 4.1 Distribution of Age of Respondents (Histogram)

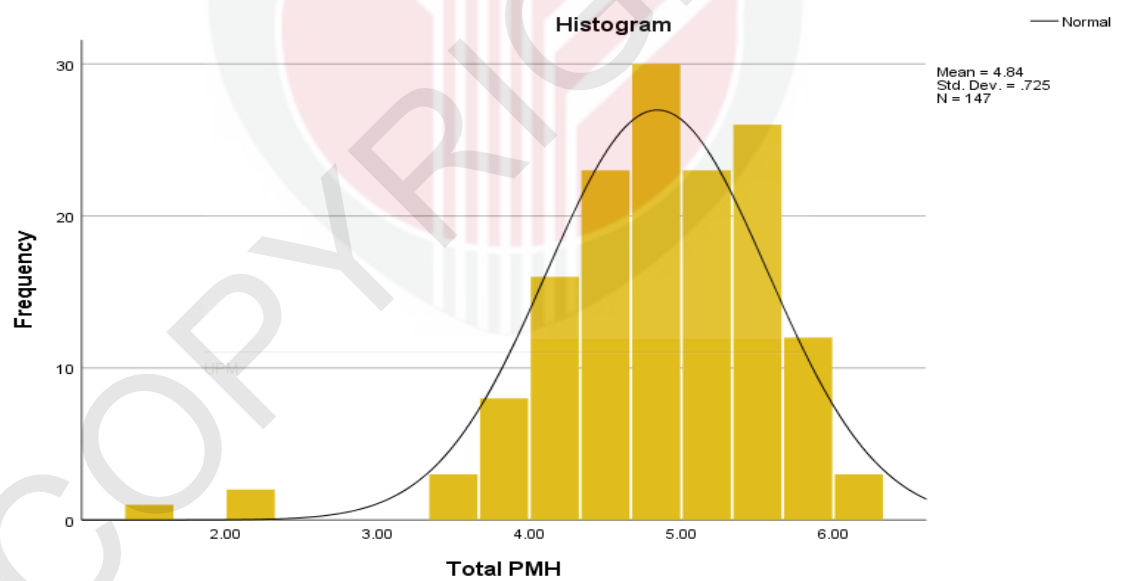


Figure 4.2 Distribution of Total Positive Mental Health (PMH) of Respondents (Histogram)

4.3 Respondents' Sociodemographic Characteristics

Table 4.2 below shows the sociodemographic characteristics of the respondents. The majority of the respondents are Malay (91.8%) and their religion is Islam (91.8%). Most of the respondents have completed pre-university level and the equivalent of the level (40.1%) and the household income is less than RM 2500 which categorized as B1 income group (47.6%). A detailed analysis with the value and the percentages is in the table below.

Table 4.2.1 The Distribution of Age Among Respondents (N=147)

Statistics	Median	Range	Minimum	Maximum
Age	33.0	41.0	18.0	59.0

Table 4.2.2 The Distribution of Sociodemographic Characteristics of the Respondents (N=147)

Dependent variables	n	(%)
Gender		
Male	61	41.5
Female	86	58.5
Household Income		
Less than RM 2500	70	47.6
RM 2501 - RM 3170	19	12.9
RM 3171 - RM3970	33	22.4
RM 3971 - RM 4850	25	17.0
Educational Level		
Primary school	1	0.7
Secondary school	47	32.0
Pre-university	59	40.1
Undergraduates	37	25.2
Others	3	2.0
Ethnicity		
Malay	135	91.8
Chinese	5	3.4
Indian	7	4.8
Religion		
Islam	135	91.8
Buddhism	4	2.7
Hinduism	5	3.4
Christianity	3	2.0
Marital Status		
Single	44	29.9

Dependent variables	n	(%)
Married	101	68.7
Divorced/Widowed	2	1.4



4.4 Frequency Distribution of Response in each Positive Mental Health Questions Among Respondents

Based on Table 4.3, most of the respondents had good emotional support as most of them answered for Question 17 (I have people in my life who give me support) with ‘very much like me’ (38.1%) and ‘exactly like me’ (37.4%). Moreover, they also had a close family (Question 19 (I have a close family): ‘very much like me’; 31.3%, ‘exactly like me’; 36.7%).

Other than that, they also had a strong religiosity as most of them allocated time for meditation or prayer (Question 35: ‘very much like me’; 38.1% ‘exactly like me’; 39.5%). The frequencies and percentages of responses for other questions is shown in Table 4.5 below.

Table 4.3.1 Frequency Distribution of Response in Each Positive Mental Health Question Among Respondents (Item 1 to Item 52) (N=147)

Question	Not at all like me n (%)	Very slightly like me n (%)	Slightly like me n (%)	Moderately like me n (%)	Very much like me n (%)	Exactly like me n (%)
1	4 (2.7)	1 (0.7)	10 (6.8)	25 (17.0)	47 (32.0)	60 (40.8)
2	6 (4.1)	1 (0.7)	6 (4.1)	33 (22.4)	46 (31.3)	55 (37.4)
3	2 (1.4)	3 (2.0)	3 (2.0)	20 (13.6)	61 (41.5)	58 (39.5)
4	17 (11.6)	19 (12.9)	34 (23.1)	30 (20.4)	24 (16.3)	23 (15.6)
5	2 (1.4)	2 (1.4)	12 (8.2)	27 (18.4)	60 (40.8)	44 (29.9)
6	6 (4.1)	5 (3.4)	12 (8.2)	35 (23.8)	51 (34.7)	38 (25.9)
7	8 (5.4)	2 (1.4)	8 (5.4)	20 (13.6)	59 (40.1)	50 (34.0)
8	29 (19.7)	21 (14.3)	31 (21.1)	33 (22.4)	21 (14.3)	12 (8.2)
9	2 (1.4)	3 (2.0)	17 (11.6)	34 (23.1)	45 (30.6)	46 (31.3)
10	12 (8.2)	7 (4.8)	20 (13.6)	34 (23.1)	48 (32.7)	26 (17.7)
11	4 (2.7)	3 (2.0)	9 (6.1)	31 (21.1)	50 (34.0)	50 (34.0)
12	1 (0.7)	4 (2.7)	6 (4.1)	15 (10.2)	58 (39.5)	63 (42.9)
13	3 (2.0)	3 (2.0)	10 (6.8)	25 (17.0)	53 (36.1)	53 (36.1)
14	2 (1.4)	3 (2.0)	5 (3.4)	22 (15.0)	51 (34.7)	64 (43.5)
15	8 (5.4)	10 (6.8)	19 (12.9)	45 (30.6)	41 (27.9)	24 (16.3)
16	2 (1.4)	5 (3.4)	11 (7.5)	34 (23.1)	47 (32.0)	48 (32.7)
17	0 (0.0)	6 (4.1)	7 (4.8)	23 (15.6)	56 (38.1)	55 (37.4)
18	27 (18.4)	22 (15.0)	27 (18.4)	41 (27.9)	16 (10.9)	14 (9.5)
19	2 (1.4)	4 (2.7)	10 (6.8)	31 (21.1)	46 (31.3)	54 (36.7)
20	2 (1.4)	4 (2.7)	15 (10.2)	33 (22.4)	46 (31.3)	47 (32.0)
21	5 (3.4)	5 (3.4)	11 (7.5)	30 (20.4)	46 (31.3)	50 (34.0)
22	4 (2.7)	6 (4.1)	7 (4.8)	35 (23.8)	50 (34.0)	45 (30.6)
23	2 (1.4)	5 (3.4)	9 (6.1)	38 (25.9)	44 (29.9)	49 (33.4)
24	0 (0.0)	6 (4.1)	1 (0.7)	32 (21.8)	62 (42.2)	46 (31.3)
25	4 (2.7)	5 (3.4)	8 (5.4)	35 (23.8)	55 (37.4)	40 (27.2)
26	48 (32.7)	9 (6.1)	22 (15.0)	35 (23.8)	21 (14.3)	12 (8.2)
27	1 (0.7)	2 (1.4)	10 (6.8)	34 (23.1)	58 (39.5)	42 (28.6)
28	1 (0.7)	2 (1.4)	12 (8.2)	33 (22.4)	59 (40.1)	40 (27.2)
29	23 (15.6)	11 (7.5)	23 (15.6)	41 (27.9)	31 (21.1)	18 (12.2)
30	2 (1.4)	4 (2.7)	8 (5.4)	34 (23.1)	53 (36.1)	46 (31.3)
31	2 (1.4)	1 (0.7)	3 (2.0)	30 (20.4)	57 (38.8)	54 (36.7)
32	3 (2.0)	4 (2.7)	9 (6.1)	38 (25.9)	52 (35.4)	41 (27.9)
33	9 (6.1)	6 (4.1)	27 (18.4)	39 (26.5)	39 (26.5)	27 (18.4)
34	1 (0.7)	0 (0.0)	3 (2.0)	14 (9.5)	55 (37.4)	74 (50.3)
35	1 (0.7)	3 (2.0)	5 (3.4)	24 (16.3)	56 (38.1)	58 (39.5)
36	3 (2.0)	2 (1.4)	9 (6.1)	14 (9.5)	39 (26.5)	80 (54.4)
37	1 (0.7)	4 (2.7)	8 (5.4)	17 (11.6)	36 (24.5)	81 (55.1)
38	21 (14.3)	10 (6.8)	19 (12.9)	42 (28.6)	29 (19.7)	26 (17.7)
39	3 (2.0)	2 (1.4)	3 (2.0)	15 (10.2)	43 (29.3)	81 (55.1)
40	2 (1.4)	3 (2.0)	3 (2.0)	20 (13.6)	39 (26.5)	80 (54.4)
41	1 (0.7)	3 (2.0)	14 (9.5)	29 (19.7)	46 (31.3)	54 (36.7)
42	2 (1.4)	5 (3.4)	9 (6.1)	39 (26.5)	54 (36.7)	38 (25.9)
43	0 (0.0)	3 (2.0)	11 (7.5)	53 (36.1)	44 (29.9)	36 (24.5)
44	2 (1.4)	5 (3.4)	10 (6.8)	42 (28.6)	44 (29.9)	44 (29.9)

Question	Not at all like me n (%)	Very slightly like me n (%)	Slightly like me n (%)	Moderately like me n (%)	Very much like me n (%)	Exactly like me n (%)
45	37 (25.2)	15 (10.2)	16 (10.9)	36 (24.5)	31 (21.1)	12 (8.2)
46	5 (3.4)	6 (4.1)	12 (8.2)	43 (29.3)	45 (30.6)	36 (24.5)
47	3 (2.0)	3 (2.0)	5 (3.4)	32 (21.8)	58 (39.5)	46 (31.3)
48	1 (0.7)	8 (5.4)	4 (2.7)	29 (19.7)	60 (40.8)	45 (30.6)
49	5 (3.4)	5 (3.4)	7 (4.8)	51 (34.7)	50 (34.0)	29 (19.7)
50	4 (2.7)	3 (2.0)	7 (4.8)	31 (21.1)	53 (36.1)	49 (33.3)
51	5 (3.4)	10 (6.8)	12 (8.2)	43 (29.3)	51 (34.7)	26 (17.7)
52	3 (2.0)	4 (2.7)	10 (6.8)	30 (2.4)	57 (38.8)	43 (29.3)



Table 4.3.2 Frequency Distribution of Response in Each Positive Mental Health Question Among Respondents (Item 53 to Item 57)(N=147)

Question	Never or very rarely n (%)	Rarely n (%)	Sometimes n (%)	Often n (%)	Very often or always n (%)
53	2 (1.4)	3 (2.0)	48 (32.7)	59 (40.1)	35 (23.8)
54	1 (0.7)	2 (1.4)	41 (27.9)	66 (44.9)	37 (25.2)
55	2 (1.4)	2 (1.4)	45 (30.6)	63 (42.9)	35 (23.8)
56	2 (1.4)	7 (4.8)	41 (27.9)	60 (40.8)	37 (25.2)
57	2 (1.4)	8 (5.4)	45 (30.6)	47 (32.0)	45 (30.6)

4.5 Positive Mental Health Score Among B40 Population in Public Work Department Quarters

Table 4.4.1 shows that the average of total positive mental health (PMH) scores among respondents is moderate PMH (4.84). Out of six domain specific scores, spirituality has the highest mean (5.21) which suggests that most of the respondents have good religiosity. All the mean and standard deviation (SD) for total PMH and domain specific scores is shown in Table 4.4.1 below. Based on Table 4.4.2, the average of total PMH scores and domain specific scores for male is higher than female. Other than that, Chinese also show the highest PMH scores in various domain specific scores such as General Coping, Interpersonal Skills, and Personal Growth and Autonomy but Malay show the highest total PMH scores and also in other domains. The comparison for other categories is shown in more detailed results in Table 4.4.2 below.

Table 4.4.1 Total Positive Mental Health (PMH) Score and Domain Specific Scores Among Respondents (N= 147)

PMH Scores	Mean (SD)
Total PMH	4.84 (0.72)
General Coping	4.78 (0.94)
Emotional support	4.88 (0.92)
Spirituality	5.21 (0.90)
Interpersonal skills	4.84 (0.80)
Personal growth and autonomy	4.74 (0.88)
Global affect	4.58 (0.97)

Table 4.4.2 Total Positive Mental Health (PMH) Score and Domain Specific Scores
Among Respondents According Sociodemographic Characteristics (N= 147)

Sociodemographic Characteristics	Mean (SD)						
	Total PMH	General Coping	Emotional Support	Spirituality	Interpersonal Skills	Personal Autonomy & Growth	Global Affect
Gender							
Male	5.03 (0.58)	5.01 (0.82)	5.02 (0.82)	5.34 (0.66)	5.02 (0.70)	4.99 (0.64)	4.74 (0.88)
Female	4.71 (0.79)	4.62 (1.04)	4.79 (0.98)	5.11 (1.02)	4.71 (0.84)	4.57 (0.98)	4.46 (1.02)
Household Income							
Less than RM 2500	4.88 (0.68)	4.83 (0.90)	4.90 (0.95)	5.29 (0.84)	4.92 (0.77)	4.78 (0.88)	4.46 (1.06)
RM 2501 - RM 3170	4.82 (0.93)	4.88 (1.08)	4.74 (1.09)	5.05 (1.17)	4.88 (0.96)	4.70 (1.06)	4.64 (0.83)
RM 3171 - RM3970	4.79 (0.88)	4.68 (1.00)	4.92 (0.96)	5.13 (1.05)	4.70 (0.92)	4.65 (0.98)	4.80 (0.87)
RM 3971 - RM 4850	4.81 (0.43)	4.68 (0.88)	4.88 (0.68)	5.19 (0.58)	4.76 (0.55)	4.80 (0.55)	4.54 (0.91)

Sociodemographic Characteristics	Mean (SD)						
	Total PMH	General Coping	Emotional Support	Spirituality	Interpersonal Skills	Personal Autonomy & Growth	Global Affect
Educational Level							
Primary school	3.79 (-)	4.11 (-)	4.71 (-)	5.14 (-)	3.44 (-)	2.50(-)	3.25 (-)
Secondary school	4.91 (1.00)	4.79 (1.20)	4.95 (1.18)	5.21 (1.25)	4.95 (1.07)	4.91 (1.16)	4.62 (1.15)
Pre-university	4.89 (0.54)	4.81 (0.87)	4.98 (0.72)	5.26 (0.60)	4.91 (0.61)	4.79 (0.66)	4.55 (0.78)
Undergraduates	4.70 (0.55)	4.72 (0.68)	4.66 (0.86)	5.12 (0.76)	4.62 (0.59)	4.54 (0.67)	4.62 (0.98)
Others	4.82 (0.75)	4.96 (0.94)	4.85 (0.78)	5.33 (1.15)	4.85 (0.79)	4.47 (0.50)	4.42 (1.38)
Ethnicity							
Malay	4.87 (0.70)	4.81 (0.93)	4.94 (0.88)	5.26 (0.84)	4.84 (0.80)	4.77 (0.85)	4.63 (0.95)
Chinese	4.85	5.16 (0.86)	4.57 (1.66)	4.66 (1.49)	5.11 (0.84)	4.86 (1.30)	4.50 (0.73)

Sociodemographic Characteristics	Mean (SD)						
	Total PMH	General Coping	Emotional Support	Spirituality	Interpersonal Skills	Personal Autonomy & Growth	Global Affect
	(1.03)						
Indian	4.20 (0.75)	3.90 (0.87)	4.06 (0.95)	4.57 (1.18)	4.63 (0.84)	4.21 (1.06)	3.57 (1.14)
Religion							
Islam	4.87 (0.70)	4.81 (0.93)	4.94 (0.88)	5.26 (0.84)	4.84 (0.80)	4.77 (0.85)	4.63 (0.95)
Buddhism	4.65 (1.07)	4.94 (0.82)	4.39 (1.86)	4.36 (1.54)	5.03 (0.95)	4.65 (1.41)	4.25 (0.54)
Hinduism	4.04 (0.55)	3.69 (0.88)	3.91 (0.50)	4.91 (0.61)	4.22 (0.56)	4.14 (0.97)	3.05 (0.37)
Christianity	4.95 (1.11)	4.96 (1.06)	4.71 (1.51)	4.43 (2.00)	5.59 (0.13)	4.83 (1.41)	5.08 (1.18)
Marital Status							
Single	4.78 (0.65)	4.68 (0.88)	4.80 (1.00)	5.13 (0.92)	4.88 (0.73)	4.70 (0.89)	4.42 (0.97)

Sociodemographic Characteristics	Mean (SD)						
	Total PMH	General Coping	Emotional Support	Spirituality	Interpersonal Skills	Personal Autonomy & Growth	Global Affect
Married	4.86 (0.76)	4.81 (0.97)	4.91 (0.90)	5.23 (0.89)	4.82 (0.83)	4.76 (0.88)	4.63 (0.97)
Divorced/Widowed	5.25 (0.08)	5.39 (0.79)	4.93 (0.71)	6.00 (0.00)	4.89 (0.94)	5.15 (0.64)	5.25 (0.35)

4.6 Association Between Sociodemographic Characteristics and Positive Mental Health

4.6.1 Sociodemographic Characteristics and Total Positive Mental Health

Based on Table 4.5.1, the Spearman's correlation test, for age and total positive mental health, shows that there is a weak positive correlation between age and total positive mental health ($r=0.05$).



Table 4.5.1 The Association Between Age and Total Positive Mental Health by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	0.05	147	0.53

Based on Table 4.5.2, Mann-Whitney U test is used for gender and total positive mental health. It shows that the p-value is 0.02. Thus, the null hypothesis is rejected. Therefore, there is significant association between gender and total positive mental health among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and total positive mental health. It shows that the p-value for household income and total positive mental health is 0.87 and the null hypothesis is not rejected. Thus, there is no association between household income and total positive mental health. The Kruskal-Wallis test for educational level and total positive mental health is not significant ($p=0.05$). Therefore, there is no association between educational level and total positive mental health. The Kruskal-Wallis test for ethnicity and total positive mental health is statistically significant ($p=0.04$). Thus, there is association between ethnicity and total positive mental health. Next, it shows that the p-value for religion and total positive mental health is 0.04 and the null hypothesis is rejected. Thus, there is association between religion and total positive mental health. The Kruskal-Wallis test for marital status and total positive mental health is not significant ($p=0.40$), failing to reject the null hypothesis. Therefore, there is no association between marital status and total positive mental health.

Table 4.5.2 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Total Positive Mental Health by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H/	p-value
Gender							
Male	61	84.16	2003	5744	-		0.02
Female	86	66.79			2.44		
Household Income							
Less than RM 2500	47.6(70)	75.46				0.72	0.87
RM 2501-RM3170	12.9(19)	77.50					
RM 3171-RM 3970	22.4(33)	73.48					
RM 3971-RM 4850	17.0(25)	67.94					
Educational Level							
Primary	0.7(1)	9.00				9.69	0.05
Secondary	32.0(47)	86.23					
Pre-University	40.1(59)	73.59					
Undergraduate	25.2(37)	60.96					
Others	2.0(3)	72.83					
Ethnicity							
Malay	91.8(135)	75.83				6.24	0.04
Chinese	3.4(5)	79.30					
Indian	4.8(7)	34.86					
Religion							
Islam	91.8(135)	75.83				7.94	0.04
Buddhism	2.7(4)	66.63					
Hinduism	3.4(5)	22.60					
Christianity	2.0(3)	87.00					
Marital Status							
Single	29.9(44)	68.32				1.85	0.40
Married	68.7(101)	75.92					
Divorced/Widowed	1.4(2)	102.00					

4.6.2 Sociodemographic Characteristics and General Coping

Based on Table 4.5.3, the Spearman's correlation test, for age and general coping, shows that there is a weak positive correlation between age and general coping ($r=0.02$).



Table 4.5.3 The Association Between Age and General Coping by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	0.02	147	0.82

Based on Table 4.5.4, Mann-Whitney U test is used for gender and general coping score. It shows that the p-value is 0.03, which is less than 0.05. Thus, the null hypothesis is rejected. Therefore, there is significant association between gender and general coping among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and general coping. It shows that the p-value for household income and general coping is 0.51, the null hypothesis is not rejected. Thus, there is no association between household income and general coping. The Kruskal-Wallis test for educational level and general coping is not significant ($p=0.52$). There is no association between educational level and general coping. The Kruskal-Wallis test for ethnicity and general coping is statistically significant ($p=0.04$). Therefore, there is an association between ethnicity and general coping. The Kruskal-Wallis test for religion and general coping is not statistically significant ($p=0.06$). Thus, there is no association between religion and general coping. The Kruskal-Wallis test for marital status and general coping is not significant ($p=0.35$), failing to reject the null hypothesis. Therefore, there is no association between marital status and general coping.

Table 4.5.4 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and General Coping by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	82.81	2085.50	5826.50	-		0.03
Female	86	67.75			2.12		
Household Income							
Less than RM2500	47.6(70)	77.02				2.31	0.51
RM 2501-RM3170	12.9(19)	81.97					
RM 3171-RM 3970	22.4(33)	68.52					
RM 3971-RM 4850	17.0(25)	66.72					
Educational Level							
Primary	0.7(1)	29.50				3.21	0.52
Secondary	32.0(47)	80.23					
Pre-University	40.1(59)	73.83					
Undergraduate	25.2(37)	66.97					
Others	2.0(3)	81.17					
Ethnicity							
Malay	91.8(135)	75.53				7.75	0.02
Chinese	3.4(5)	91.10					
Indian	4.8(7)	32.21					
Religion							
Islam	91.8(135)	75.53				7.26	0.06
Buddhism	2.7(4)	78.63					
Hinduism	3.4(5)	24.00					
Christianity	2.0(3)	82.17					
Marital Status							
Single	29.9(44)	68.60				2.08	0.35
Married	68.7(101)	75.70					
Divorced/Widowed	1.4(2)	107.00					

4.6.3 Sociodemographic Characteristics and Emotional Support

Based on Table 4.5.5, the Spearman's correlation test, for age and emotional support, shows that there is a weak negative correlation between age and emotional support ($r=-0.03$).



Table 4.5.5 The Association Between Age and Emotional Support by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	-0.03	147	0.72

Based on Table 4.5.6, Mann-Whitney U test is used for gender and emotional support score. It shows that the p-value is 0.19, which is not less than 0.05. Thus, the null hypothesis is not rejected. Therefore, there is no significant association between gender and emotional support among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and emotional support. It shows that the p-value for household income and emotional support is 0.90, the null hypothesis is not rejected. Thus, there is no association between household income and emotional support. The Kruskal-Wallis test for educational level and emotional support is not significant ($p=0.18$). There is no association between educational level and emotional support. The Kruskal-Wallis test for ethnicity and emotional support is statistically significant ($p=0.04$), which is less than 0.05. Therefore, there is an association between ethnicity and emotional support. The Kruskal-Wallis test for religion and emotional support is not statistically significant ($p=0.05$). Thus, there is no association between religion and emotional support. The Kruskal-Wallis test for marital status and emotional support is not significant ($p=0.82$), failing to reject the null hypothesis. Therefore, there is no association between marital status and emotional support.

Table 4.5.6 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Emotional Support by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann - Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	79.39	2294	6035	-		0.19
Female	86	70.17			1.30		
Household Income							
Less than RM 2500	47.6(70)	75.80				0.59	0.90
RM 2501-RM3170	12.9(19)	70.47					
RM 3171-RM 3970	22.4(33)	75.64					
RM 3971-RM 4850	17.0(25)	69.48					
Educational Level							
Primary	0.7(1)	51.00				6.32	0.18
Secondary	32.0(47)	82.97					
Pre-University	40.1(59)	75.96					
Undergraduate	25.2(37)	60.46					
Others	2.0(3)	69.67					
Ethnicity							
Malay	91.8(135)	76.01				6.52	0.04
Chinese	3.4(5)	75.50					
Indian	4.8(7)	34.07					
Religion							
Islam	91.8(135)	76.01				7.87	0.05
Buddhism	2.7(4)	70.75					
Hinduism	3.4(5)	21.90					
Christianity	2.0(3)	74.50					
Marital Status							
Single	29.9(44)	70.69				0.39	0.82
Married	68.7(101)	75.47					
Divorced/Widowed	1.4(2)	72.50					

4.6.4 Sociodemographic Characteristics and Spirituality

Based on Table 4.5.7, the Spearman's correlation test, for age and spirituality, shows that there is a weak negative correlation between age and emotional support ($r = -0.05$).



Table 4.5.7 The Association Between Age and Spirituality by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	-0.05	147	0.54

Based on Table 4.5.8, Mann-Whitney U test is used for gender and spirituality score. It shows that the p-value is 0.29, which is not less than 0.05. Thus, the null hypothesis is not rejected. Therefore, there is no significant association between gender and spirituality among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and spirituality. It shows that the p-value for household income and spirituality is 0.63, the null hypothesis is not rejected. Thus, there is no association between household income and spirituality. The Kruskal-Wallis test for educational level and spirituality is not significant ($p=0.26$). There is no association between educational level and spirituality. The Kruskal-Wallis test for ethnicity and spirituality is statistically significant ($p=0.15$). Therefore, there is no association between ethnicity and spirituality. The Kruskal-Wallis test for religion and spirituality is not statistically significant ($p=0.34$). Thus, there is no association between religion and spirituality. The Kruskal-Wallis test for marital status and spirituality is not significant ($p=0.16$), failing to reject the null hypothesis. Therefore, there is no association between marital status and spirituality.

Table 4.5.8 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Spirituality by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	78.34	2354.5	6099.5	-		0.29
Female	86	70.92			1.05		
Household Income							
Less than RM 2500	47.6(70)	78.06				1.75	0.63
RM 2501-RM3170	12.9(19)	70.00					
RM 3171-RM 3970	22.4(33)	73.83					
RM 3971-RM 4850	17.0(25)	65.88					
Educational Level							
Primary	0.7(1)	60.00				5.25	0.26
Secondary	32.0(47)	84.29					
Pre-University	40.1(59)	70.53					
Undergraduate	25.2(37)	65.51					
Others	2.0(3)	90.33					
Ethnicity							
Malay	91.8(135)	75.89				3.76	0.15
Chinese	3.4(5)	62.30					
Indian	4.8(7)	45.93					
Religion							
Islam	91.8(135)	75.89				3.39	0.34
Buddhism	2.7(4)	52.13					
Hinduism	3.4(5)	49.90					
Christianity	2.0(3)	58.33					
Marital Status							
Single	29.9(44)	70.76				3.73	0.16
Married	68.7(101)	74.31					
Divorced/Widowed	1.4(2)	129.50					

4.6.5 Sociodemographic Characteristics and Interpersonal Skills

Based on Table 4.5.9, the Spearman's correlation test, for age and interpersonal skills score, shows that there is a weak negative correlation between age and interpersonal skills ($r = -0.04$).



Table 4.5.9 The Association Between Age and Interpersonal Skills by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	-0.04	147	0.64

Based on Table 4.5.10, Mann-Whitney U test is used for gender and interpersonal skills score. It shows that the p-value is 0.04, which is less than 0.05. Thus, the null hypothesis is rejected. Therefore, there is significant association between gender and interpersonal skills among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and interpersonal skills. It shows that the p-value for household income and interpersonal skills is 0.41, the null hypothesis is not rejected. Thus, there is no association between household income and interpersonal skills. The Kruskal-Wallis test for educational level and interpersonal skills is statistically significant ($p=0.02$). There is an association between educational level and interpersonal skills. The Kruskal-Wallis test for ethnicity and interpersonal skills is statistically not significant ($p=0.50$). Therefore, there is no association between ethnicity and interpersonal skills. The Kruskal-Wallis test for religion and interpersonal skills is statistically significant ($p=0.04$). Thus, there is an association between religion and interpersonal skills. The Kruskal-Wallis test for marital status and interpersonal skills is highly not significant ($p=0.99$), failing to reject the null hypothesis. Thus, there is no association between marital status and interpersonal skills.

Table 4.5.10 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Interpersonal Skills by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic Characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	82.68	2093.5	5834.5	-	2.09	0.04
Female	86	67.84					
Household Income							
Less than RM 2500	47.6(70)	77.99				2.88	0.41
RM 2501-RM3170	12.9(19)	81.32					
RM 3171-RM 3970	22.4(33)	67.65					
RM 3971-RM 4850	17.0(25)	65.66					
Educational Level							
Primary	0.7(1)	4.00				12.18	0.02
Secondary	32.0(47)	86.38					
Pre-University	40.1(59)	75.54					
Undergraduate	25.2(37)	57.78					
Others	2.0(3)	73.00					
Ethnicity							
Malay	91.8(135)	74.17				1.38	0.50
Chinese	3.4(5)	89.00					
Indian	4.8(7)	60.07					
Religion							
Islam	91.8(135)	74.17				8.17	0.04
Buddhism	2.7(4)	83.00					
Hinduism	3.4(5)	34.30					
Christianity	2.0(3)	120.67					
Marital Status							
Single	29.9(44)	74.70				0.02	0.99
Married	68.7(101)	73.67					
Divorced/Widowed	1.4(2)	75.25					

4.6.6 Sociodemographic Characteristics and Personal Autonomy and Growth

Based on Table 4.5.11, the Spearman's correlation test, for age and personal growth & autonomy shows that there is a weak positive correlation between age and personal growth & autonomy ($r=0.08$).



Table 4.5.11 The Association Between Age and Personal Autonomy and Growth by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	0.08	147	0.34

Based on Table 4.5.12, Mann-Whitney U test is used for gender and personal growth & autonomy. It shows that the p-value is 0.01, which is less than 0.05. Thus, the null hypothesis is rejected. Therefore, there is a significant association between gender and personal growth and autonomy among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and personal growth and autonomy. It shows that the p-value for household income and personal growth & autonomy is 0.92, the null hypothesis is not rejected. Thus, there is no association between household income and personal growth & autonomy. The Kruskal-Wallis test for educational level and personal growth & autonomy is statistically significant ($p=0.02$). There is an association between educational level and personal growth & autonomy. The Kruskal-Wallis test for ethnicity and personal growth & autonomy is statistically not significant ($p=0.22$). Therefore, there is no association between ethnicity and personal growth & autonomy. The Kruskal-Wallis test for religion and personal growth & autonomy is not significant ($p=0.38$). Thus, there is no association between religion and personal growth & autonomy. The Kruskal-Wallis test for marital status and personal growth & autonomy is not significant ($p=0.70$), failing to reject the null hypothesis. Thus, there is no association between marital status and personal growth & autonomy.

Table 4.5.12 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Personal Autonomy and Growth by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	84.83	1962.5	5703.5	-		0.01
Female	86	66.32			2.6		
Household Income							
Less than RM 2500	47.6(70)	75.36				0.48	0.92
RM 2501-RM3170	12.9(19)	75.84					
RM 3171-RM 3970	22.4(33)	69.55					
RM 3971-RM 4850	17.0(25)	74.66					
Educational Level							
Primary	0.7(1)	4.00				12.25	0.02
Secondary	32.0(47)	88.18					
Pre-University	40.1(59)	73.26					
Undergraduate	25.2(37)	60.66					
Others	2.0(3)	54.17					
Ethnicity							
Malay	91.8(135)	74.78				3.03	0.22
Chinese	3.4(5)	88.10					
Indian	4.8(7)	48.93					
Religion							
Islam	91.8(135)	74.78				3.05	0.38
Buddhism	2.7(4)	77.88					
Hinduism	3.4(5)	42.60					
Christianity	2.0(3)	86.17					
Marital Status							
Single	29.9(44)	70.68				0.70	0.70
Married	68.7(101)	75.08					
Divorced/Widowed	1.4(2)	92.25					

4.6.7 Sociodemographic Characteristics and Global Affect

Based on Table 4.5.13, the Spearman's correlation test, for age and global affect shows that there is a very strong positive correlation between age and global affect ($r = 0.20$).



Table 4.5.13 The Association Between Age and Global Affect by Spearman's Correlation (N=147)

Sociodemographic characteristics	Correlation coefficient (r)	Frequency (n)	p-value
Age	0.20	147	0.02

Based on Table 4.5.14, Mann-Whitney U test is used for gender and global affect. It shows that the p-value is 0.11, which is more than 0.05. Thus, the null hypothesis fails to be rejected. Therefore, there is no significant association between gender and global affect among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur.

Kruskal-Wallis test is used for sociodemographic characteristics (household income, educational level, religion, ethnicity and marital status) and global affect. It shows that the p-value for household income and global affect is 0.47, the null hypothesis is not rejected. Thus, there is no association between household income and global affect. The Kruskal-Wallis test for educational level and global affect is not statistically significant ($p=0.47$). There is no association between educational level and global affect. The Kruskal-Wallis test for ethnicity and global affect is statistically significant ($p=0.02$). Therefore, there is an association between ethnicity and global affect. The Kruskal-Wallis test for religion and global affect is statistically significant ($p<0.001$), which is less than 0.05. Thus, there is an association between religion and global affect. The Kruskal-Wallis test for marital status and global affect is not significant ($p=0.13$), failing to reject the null hypothesis. Thus, there is no association between marital status and global affect.

Table 4.5.14 The Association Between Sociodemographic Characteristic (Gender, Household Income, Educational Level, Ethnicity, Religion & Marital Status) and Global Affect by Mann Whitney U/Kruskal-Wallis (N=147)

Sociodemographic characteristics	Frequency (n)	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Kruskal-Wallis, H	p-value
Gender							
Male	61	80.61	2220	5961	-		0.11
Female	86	69.31			1.60		
Household Income							
Less than RM 2500	47.6(70)	69.49				2.53	0.47
RM 2501-RM3170	12.9(19)	76.89					
RM 3171-RM 3970	22.4(33)	83.30					
RM 3971-RM 4850	17.0(25)	72.14					
Educational Level							
Primary	0.7(1)	7.50				3.53	0.47
Secondary	32.0(47)	78.77					
Pre-University	40.1(59)	71.25					
Undergraduate	25.2(37)	74.99					
Others	2.0(3)	63.33					
Ethnicity							
Malay	91.8(135)	76.49				8.04	0.02
Chinese	3.4(5)	68.00					
Indian	4.8(7)	30.29					
Religion							
Islam	91.8(135)	76.49				14.10	<0.01
Buddhism	2.7(4)	55.88					
Hinduism	3.4(5)	8.20					
Christianity	2.0(3)	95.83					
Marital Status							
Single	29.9(44)	64.65				4.15	0.13
Married	68.7(101)	77.39					
Divorced/Widowed	1.4(2)	108.75					

CHAPTER 5

DISCUSSION

5.1 Introduction

Mental health could be defined as having an ability to cope with life, and productively working within their own capacities and contribute to the society (WHO, 2004) and it must include individuality and societal aspects (WHO, 2004; Picco et al., 2017). Combining two aspects of wellbeing which are eudemonic and hedonic is positive mental health (Ryan & Deci, 2001; Keyes, 2009).

In Malaysia, there is a low number of studies regarding positive mental health especially in low socioeconomic population. Positive mental health promotes a protection that can reduce the risk of developing mental disorders (McLaughlin et al., 2012). The study in the Singapore (Vaingankar et al, 2020) and a study in UK (Pitchforth et al., 2019) also proved an association of low positive mental health with mental health.

Thus, this study was conducted to determine the association between various sociodemographic factors in B40 population. Based on the findings, there are some sociodemographic factors correlated with positive mental health excluding household income and marital status.

5.2 Sociodemographic Characteristics of Respondents

The total of eligible respondents of this study was 147. All of them were B40 populations of Public Work Department Quarters, Kuala Lumpur. The age of the respondents ranged from 18 to 59 years old Malaysian adults. The average age of the respondents was 33.5 years old. There is slightly difference of average age of respondents from research carried out on positive mental health among multiracial population in Singapore. The average age of respondents reported was 41 years old (Vaingankar et. al., 2011). Although the ethnicity of Malaysia and Singapore share similar characteristics, the finding is different because the research in Singapore was carried out among a huge number of populations which is 2088 without classification of the population's household income while this study is carried out among B40 population only.

This study shows that 58.5% of the total respondents were female while 41.5% of the respondents were male. The responses were higher among female as compared to male. This finding is similar to a study conducted on positive mental health among health professionals working at a psychiatric hospital. The response rate of female health professionals was more than male health professionals (Picco et. al., 2017). Besides, the response of this study was also similar to a research carried out by researchers from Singapore where the number of female respondents was more than male (Picco et al, 2017). Based on this study, the responses were as such because the data collection was conducted during working hours. Most of the respondents are most likely to be housewives or undergraduates' students who were staying at home due to the recovery movement control order period when data collection is carried out.

Besides, majority of the respondents of this study are Malay with distribution of 91.8% followed by Indian and Chinese with distribution of 4.8% and 3.4% respectively. The result is different from research done in Singapore where Chinese contributed the most responses followed by Indian, Malay and another ethnicity (Vaingankar et. al. (2020). This is to the fact that the Public Work Department Quarters, Kuala Lumpur is dominated by Malay residents. Thus, in concert with the domination of Malay residents in the quarters, this study had a high response rate from respondents from Islamic religion as compared to Buddhism, Hinduism and Christianity. This is because, most of the Malay residents are Muslim.

Next, the respondents of household income less than RM2500 contributed the most responses to this study followed by respondents with household income between RM3171 and RM3970, the respondents with household income between RM3971 and RM4850, and respondents with household income between RM2501 and RM3170. This is because, most of the respondents in Public Work Department Quarters, Kuala Lumpur, have only one person working per household, which contributes to income less than RM2500. The finding is not comparable to a research on positive mental health conducted in Singapore as the classification of household income is different (Vaingankar et. al., 2020).

Apart from that, 68.7% of the respondents are married while 29.9% of the respondents are single and 1.4% of the respondents are widowed. This is because most of the residents in the quarters are married couples and some of them are children of the residents. This result is similar to a study done among multiracial population in

Singapore where the married citizens contributed the most responses as compared to single and widowed/separated/ divorced citizens (Vaingankar et.al. (2011)).

Besides, 59% of respondents completed pre- university education, 32% completed secondary education, 25.2% completed undergraduate education, 2% completed other categories of education and 0.7% completed primary education. This is due to the fact that most of the residents are Public Work Department workers which require them to fulfil the requirement of education to be part of the Public Work Department members. Apart from that, some of the respondents are the children of the residents who were studying in pre- university and secondary education level. The finding is different from a study on positive mental health which was carried out among healthcare workers working at IMH, the tertiary psychiatric hospital in Singapore. Based on the study, it is reported that healthcare workers who were completed bachelor or undergraduate studies made up the highest responses as compared to other education level as the requirement of education level was different based on professions (Picco et. al., 2017)

5.3 Positive Mental Health Scores

The findings showed that the study population in this study had a better positive mental health, as the mean (SD) total PMH score for the whole sample was 4.84 (0.72) compared to the study in Singapore by Vaingankar et al. (2018) that showed the mean (SD) for the general population in Singapore was 4.61 (0.8) and the study by Vaingankar et al. (2020) that revealed the mean (SD) was 4.46 (0.48). This situation may be influenced by Malaysian government's policy that provide many aids in various ways. On the other hand, it also should be expected as in this study as the respondents with mental health problem was excluded while the study in Singapore was including general population.

Based on study by Vaingankar et al. in 2018, other than total positive mental health among B40 population in Public Work Department quarters, Jalan Sungai Besi, various domain had showed higher mean (SD) than the general population in Singapore. For instance, general coping was better in B40 population in this study (4.78) than population in Singapore (4.68). Lower cost of living in Malaysia than cost of living in Singapore might contribute to these findings. International Civil Service Commission reported that Singapore has higher retail price index than retail price index in Malaysia in June 2020. This explanation is supported by Tanton, Vidyattama and Mohanty in their study in 2015 which reported that high cost of living increases financial stress. The stress might lead to lower positive mental health.

Another finding was the mean (SD) for spirituality in this study (5.21 (0.9)) significantly higher than in the study in Singapore (3.73(1.7))(Vaingankar et al, 2018). There are an active social community of mosque in the Public Work Departments

Quarters. This community may lead to better spirituality among the respondents who are mostly Muslim. Other than that, Muslims also have allocated time five times every day for performing prayers, and this obligation contributes to better spirituality scores in this study due to lots of respondents were Muslim.

However, other domain specific scores which are emotional support, interpersonal skills, personal growth and autonomy and global affect had showed similar results with the study by Vaingankar et al. (2018). This similarity could be due to this domain are based on individualistic aspect; hence it is not affected by different government policies or other factors. Plus, the sociodemographic structures for both countries are similar to each other.

5.4 Association Between Sociodemographic Characteristics and Positive Mental Health

As mentioned in the data analysis in Chapter 4, there is a significant association between gender, ethnicity and religion with total positive mental health among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. Male has higher quality of mental health compared to female. This result is similar to a study in Vojvodina, Serbia shows that female population is more vulnerable compared to males. Women are more often exposed to stressful situations and emotional problems and has low positive mental health (Kvrgic, et al,2013). Moreover, In Iceland, levels of depression and anxiety increased from 2006 to 2016 among female adolescents, with males reporting no change or even reduced symptoms of anxiety over time (Thorisdottir et al, 2017). Also, a significant association is found between ethnicity and religion with positive mental health same as a study in

Singapore has proved that culture and ethnicity have association with positive mental health (Vaingankar et al, 2013).

However, there are no association between household income, level of education, marital status and age with total positive mental health. This is due to limitation of the study involving only B40 population in specific location, which is in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. Besides, the residents are encouraged to participate in the community activities. Muslims will be joining the prayers and social work in mosque. They also received assistances from Public Work Department to ease their burdens such as don't have to pay the rental fees. Families living on a low income found that the recent recession has generated more burdens for parents in these circumstances, including increased time pressures, a decline in nutrition, and higher stress levels (Mountney,2012) but in the results shows that household income has no effect to positive mental health. Furthermore, education level is not associated with positive mental health. Secondary level of education has higher mean rank followed by pre- university, others, undergraduate and lastly primary but a study has proved that longer the study duration can help people to choose better health inputs by improving knowledge about health behaviours and health outcomes (Avendano et al,2017). This contradictory is due to different study populations. It is difficult for B40 population to further their studies because of financial constraints. B40 population who are pursuing pre-university and undergraduate is a challenge for them to deal with stress related to money and studies, this situation may lead to poor positive mental health.

According to data analysis, there is also no association between marital status and positive mental health among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. Widowed or divorced residents have higher positive mental health due to the fact that they are more self-standing and has stable financial status. In contrary with previous studies, marriage has been associated with positive impact for individuals with a stronger sense of self identity, improved psychosocial outcomes, increased economic resources and rapport especially during stressful situation (Siva Kumar et al,2020). Besides, in Singapore there is marriage-related gains such as social support (Subramaniam et al,2019). Next, there is a weak positive correlation between age and positive mental health ($r=0.05$), due to the age distribution is between 18 to 59 years old. A study in United States has concluded that pattern of mental health across the lifespan is dependent on the nation (Schönfeld, P et al,2017). Level of education has the p-value 0.05 which is very close to ($p<0.05$). Therefore, the research would like to emphasize this factor to be closely studied in the future as the research believe there is association between the level of education and positive mental health.

CHAPTER 6

SUMMARY

6.1 Summary of Research

In a nutshell, the main focus of the study is to assess the positive mental health which consists of six domains general coping, emotional support, spirituality, interpersonal skills, personal growth&autonomy, global affect among B40 population in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. A cross-sectional study was used using data collected by self-administered questionnaires. The sample size was 171 however data were managed to be collected from 147 residents only giving overall response rate of 85.96%.

Several sociodemographic factors were explored in this study, namely the age, gender, educational level, household income, religion, ethnicity and marital status. After the data analysis had been finalized, it was found that gender, ethnicity and religion had association with positive mental health, in which the p-value is less than 0.05 ($p=0.04$). For educational level, has smaller p-value of 0.05. There was age ($p=0.53$), household income ($p=0.87$) and marital status ($p=0.40$). Thus, educational level, age, household income and marital status were not associated with positive mental health.

Out of six domain specific scores, spirituality has the highest mean (5.21) among the residents. The average of total PMH scores and domain specific scores for male is higher than female. Besides, Malay showed the highest total PMH scores followed by Chinese and Indian.

6.2 Conclusion

To conclude, an entanglement of using this instrument in this research had been measured and observed changes to positive mental health among the B40 population in Malaysia specifically residents in Public Work Department Quarters, Jalan Sungai Besi, Kuala Lumpur. Out of six domain specific scores, spirituality had the highest mean (5.21) which suggests that most of the respondents have good religiosity.

Household income had no association with positive mental health because based on the one of the residents in the quarters everyone is encouraged to participate in the community activities such as cleaning up activity, family day and many more. Muslims residents will be joining the prayers and social work in mosque. They also received assistances from Public Work Department to ease their burdens. Apart from that, due to the Covid-19 pandemic, Malaysian government had come up with moratorium, PRIHATIN Rakyat Economic Stimulus Package and PENJANA initiatives to provide financial aids.

6.3 Strength of the Study

The study is a cross sectional study, hence the association between sociodemographic characteristics and positive mental health is shown. The results of the sample also can be generalised to study population. This study using self-administered questionnaire which allowed to gather lots of information with cost-effective method. The questionnaire that was used in this study also was a validated, and was re-validated made for multiracial population. The data also was relatively easy to be analysed. The same questions also were used for all respondents; hence the bias was avoided. Besides, the study had a good response rate which exceeding 80%.

6.4 Limitations of the Study

This study has potential limitations. This limitation estimates in the model based on cross-sectional study. The study could not establish cause and effect relationship between two variables. This study also was limited to the B40 population, thus the comparison between the various income group could not be seen. There is lack of previous studies on positive mental health leading to reduced foundations for the research questions. The study was be done with the help from the representative and the explanation about the study could not be explained properly. There was also movement control order (MCO) in Malaysia creating challenge to collect the data. There were some respondents answer the questions in repetitive pattern that may lead to bias. There was also presence of time constraints.

6.5 Bias

Presence of response bias was identified based on the data collected as there are several residents who answered the questionnaire with the same answers for all questions. This might cause disruptions during data analysis.

Besides, there was non-response bias throughout this study as several residents refused to be part of this research and to answer the self- administered questionnaire. Apart from that, the residents were not at home when the questionnaire is distributed.

6.6 Recommendation

6.6.1 Recommendation to stakeholders

It is recommended for the government; for instance, the Ministry of Health to organise more campaigns or programs on mental health to acknowledge and develop positive mental health among the society. This can be one of the mediators to lessen mental health problems and life expectancy of the community. Apart from that, it is suggested that more assistances in terms of facilities and basic needs such as food are provided by the Social Welfare Department of The Ministry of Women, Family and Community Development as well as the Public Work Department authorities.

Besides, study on positive mental health among other categories of populations are also proposed especially to the researchers or academicians in Malaysia. It will help to strengthen and develop more integrated mental health interventions in the country. Next, the Public Work Department Quarters committee are suggested to conduct more events or programmes on positive mental health among the residents.

6.6.2 Recommendation for future research

The selection of study location should be more relevant to avoid unnecessary harm or waste of data when non-eligible respondents are selected. Apart from that, other study design such as cohort study or intervention study are recommended for future research as cross-sectional study which was used in this research prevented the study of cause and effect relationship.

Furthermore, it is recommended to include other factors that are not yet studied in this research. This is because, other factors such as number of children, smoking status,

occupation and others could be the strong protective factors against mental health issues. On top of that, it is suggested to include population of M40 and T20 in future study as it helps to compare the difference of positive mental health score between difference household income.



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APPENDICES

APPENDIX A



**JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM
SERDANG, SELANGOR, MALAYSIA**

BORANG 2.4: PENERANGAN DAN PERSETUJUAN RESPONDEN

Sila baca maklumat berikut dengan teliti. Sekiranya anda mempunyai sebarang pertanyaan, sila kemukakan kepada penyelidik.

1.TAJUK KAJIAN

Kesihatan Mental Positif dalam kalangan Penghuni di Kuarters Jabatan Kerja Raya (JKR) Jalan Sungai Besi dan Faktor Berkaitan

2. PENGENALAN

Kesihatan Mental Positif adalah keadaan di mana seseorang individu mampu untuk:

- Menyedari potensi diri
- Bekerja secara produktif
- Mengawal stress normal dalam kehidupan
- Memberi sumbangan yang positif kepada masyarakat

Tujuan kajian ini adalah untuk mengenal pasti ciri- ciri sosio- demografi (umur, jantina, tahap pendidikan, pendapatan / isi rumah, pekerjaan, status perkahwinan, kumpulan etnik, agama) di kalangan penduduk B40 di Kuarters Jabatan Kerja Raya, Jalan Sungai Besi, Kuala Lumpur. Selain itu, tahap kesihatan mental positif dalam kalangan penduduk dan hubung kait dengan ciri- ciri sosio- demografi penduduk.

3. APAKAH YANG PERLU ANDA LAKUKAN?

Borang kaji selidik ini mengambil masa 5 hingga 10 minit untuk diisi. Semua responden perlu membaca dan mengisi borang penerangan dan persetujuan yang dimaklumkan dan borang soal selidik penyelidikan yang diedarkan oleh penyelidik. Semua soalan harus dijawab dengan teliti dan jujur kerana setiap jawapan akan diambil kira. Anggaran peserta adalah seramai 450-500 orang.

4. SIAPA YANG TIDAK BOLEH MENYERTAI KAJIAN INI?

- a. Kanak- kanak berusia bawah 18 tahun.
- b. Penduduk bukan warganegara Malaysia.
- c. Penduduk yang menghidap penyakit kronik dan mental (telah disahkan oleh doktor)

Sekiranya responden ingin menarik diri daripada kajian ini, responden bebas untuk mengambil keputusan sebegitu kerana kajian ini adalah berdasarkan kerelaan responden. Tiada penalti atau denda yang akan dikenakan.

5. APAKAH FAEDAH MENYERTAI KAJIAN INI?

a) KEPADA ANDA SEBAGAI PESERTA?

1. Langkah-langkah untuk meningkatkan tahap literasi kesihatan mental boleh diambil sekiranya tahap literasi kesihatan mental penduduk kumpulan B40 di perumahan ini

rendah.

b) KEPADA PENYELIDIK?

1. Mengenalpasti faktor yang dapat membantu meningkatkan tahap kesihatan mental positif dalam kalangan populasi kumpulan B40
2. Memperbaiki hubungan dengan penduduk setempat.

6. ADAKAH IA BERISIKO?

Tiada sebarang risiko yang dikenal pasti sekiranya responden memilih untuk menyertai kajian ini kerana kajian ini tidak melibatkan sebarang prosedur yang merbahaya. Walau bagaimanapun, kajian ini tidak akan diteruskan sekiranya terdapat masalah- masalah yang tidak dapat dielakkan.

7. ADAKAH MAKLUMAT DAN IDENTITI SAYA KEKAL RAHSIA?

Semua maklumat adalah sulit dan dirahsiakan setakat yang dibenarkan undang-undang. Manakala pihak Jawatankuasa Etika Universiti Untuk Penyelidikan Melibatkan Manusia (JKEUPM) boleh menghubungi responden untuk merekod sebarang aduan atau cadangan penambahbaikan.

8. SIAPA YANG SAYA PERLU HUBUNGI SEKIRANYA SAYA MEMPUNYAI SOALAN TAMBAHAN SEMASA MENGIKUTI PENYELIDIKAN INI?

- a. Prof Madya Dr Suriani Ismail (03-89472408)
Jabatan Kesihatan Komuniti,
Fakulti Perubatan dan Sains Kesihatan,
43400 UPM Serdang,
Selangor.
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- e. Kesshinee A/P Gunasegaran (017-3145948) kesshinee98@gmail.com

Sila tandatangan di sini sekiranya anda telah membaca dan memahami kandungan halaman ini

9. PERSETUJUAN

Saya..... No Kad Pengenalan.
beralamat.....
.....dengan ini bersetuju untuk mengambil bahagian secara sukarela
dalam penyelidikan yang tersebut di atas *(kajian klinikal/percubaan ubat-ubatan/rakaman
video/kumpulan sasaran/temuduga/ soal selidik).

Saya telah diberi penjelasan secara menyeluruh mengenai penyelidikan ini dari segi metodologi,
risiko dan komplikasi (seperti tertulis pada Helaian Penerangan Responden). Saya memahami bahawa
saya berhak menarik diri dari penyelidikan ini pada bila-bila masa tanpa memberi sebarang
alasan.Saya juga memahami bahawa sebarang maklumat yang berkaitan identiti saya akan
dirahsiakan.

Saya* berminat / tidak berminat untuk mengetahui keputusan kajian yang melibatkan saya.

I setuju/tidak bersetuju untuk imei/gambar/rakaman video/ rakaman suara digunakan dalam apa jua
bentuk penerbitan atau pembentangan. (sekiranya berkaitan).

*potong yang tidak berkenaan

Tandatangan Tandatangan
(Responden) (Saksi)

Tarikh :..... Nama :.....

No. K/P:

Saya mengesahkan bahawa saya telah menerangkan kepada responden ini sifat dan tujuan
penyelidikan yang tersebut di atas.

Tarikh Tandatangan
(Penyelidik)



**JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR, MALAYSIA**

FORM 2.4: RESPONDENT'S INFORMATION SHEET AND INFORMED CONSENT FORM

Please read the following information carefully and do not hesitate to discuss any questions you may have with the researcher.

1. STUDY TITLE :

Positive Mental Health among Residents in Public Work Department Quarters Jalan Sungai Besi, 57100 Kuala Lumpur and Its Associated Factors

2. INTRODUCTION:

Positive mental health is a state of well-being where individuals are able to:

- Realise their own potential
- Work productively
- Cope with the normal stresses of life
- Make a positive contribution to the community

The purpose of this study was to identify sociodemographic characteristics (age, gender, education level, income / household, occupation, marital status, ethnic group, religion) among residents of B40 at the Public Works Department Quarters, Jalan Sungai Besi, Kuala Lumpur. In addition, the level of positive mental health among the population and its association with the sociodemographic characteristics of the population.

3. WHAT WILL YOU HAVE TO DO?

This survey takes 5 to 10 minutes to complete. All of the respondents need to read and fill in the respondent's information sheet, informed consent form and research questionnaire that are distributed by the researcher. All of the questions have to be answered truthfully as each of them will be taken into account. The estimated participants involved are 450- 500 people.

4. WHO SHOULD NOT PARTICIPATE IN THE STUDY?

- a. Below 18 years old children.
- b. Non- Malaysian citizen
- c. Mentally ill and chronic disease residents (was diagnosed by the doctor)

If the respondent wishes to withdraw from this study, the respondent is free to take such decision as it is based on the willingness of the respondent. No penalty or compound will be charged.

5. WHAT WILL BE THE BENEFITS OF THE STUDY:

(a) TO YOU AS THE SUBJECT?

Steps to improve the level of positive mental health may be taken if the literacy level of positive mental health among the B40 population in the area is low.

(b) TO THE INVESTIGATOR?

- a. Identify the factors that help in improving the level of positive mental health among B40 population.
- b. Improve communication with the community.

6. WHAT ARE THE POSSIBLE RISKS?

There is no possible risk in conjunction to participate in this study as it does not involve any harmful procedure. However, this study is unlikely to be continued if there is any inevitable problem.

7. WILL THE INFORMATION THAT YOU PROVIDE AND YOUR IDENTITY REMAIN CONFIDENTIAL?

All information provided remains private and confidential to the extent that permitted by law. Meanwhile, the Ethics Committee for Research Involving Human Subjects (JKEUPM) may contact the respondent for any complaints or suggestions for improvements.

8. WHO SHOULD YOU CONTACT IF YOU HAVE ADDITIONAL QUESTIONS DURING THE COURSE OF THE RESEARCH?

- a) Assoc. Prof. Dr Suriani Ismail (03-89472408)

Department of Community Health,
Faculty of Medicine & Health Sciences,
43400 UPM Serdang,
Selangor.

si_suriani@upm.edu.my

- b) Assoc. Prof. Dr Rosliza Abdul Manaf (03-89572404)

Department of Community Health,
Faculty of Medicine & Health Sciences,
43400 UPM Serdang,
Selangor.

rosliza_abmanaf@upm.edu.my

- c) Muhammad Naim bin Abdul Razak (019-6187725) naimrazak03@gmail.com

- d) Shazza Kamilia binti Shamshir (014-2424961) shazzakamilia23@gmail.com

- e) Kesshinee A/P Gunasegaran (017-3145948) kesshinee98@gmail.com

Please initial here if you have read and understood the contents of this page _____

9. CONSENT

I Identity Card No.
address.....
.....hereby voluntarily agree to take part in the
research stated above *(clinical /drug trial/video recording/ focus group/interview-based/
questionnaire-based).

I have been informed about the nature of the research in terms of methodology, possible adverse effects and complications (as written in the Respondent's Information Sheet). I understand that I have the right to withdraw from this research at any time without giving any reason whatsoever. I also understand that this study is confidential and all information provided with regard to my identity will remain private and confidential.

I* wish / do not wish to know the results related to my participation in the research

I agree/do not agree that the images/photos/video recordings/voice recordings related to me be used in any form of publication or presentation (if applicable)

* delete where necessary

Signature Signature
(Respondent) (Witness)

Date : Name :
I/C No. :

I confirm that I have explained to the respondent the nature and purpose of the above-mentioned research.

Date Signature
(Researcher)

Objective	Formula($N = 2\sigma^2 [Z_{1-\alpha/2} + Z_{1-\beta}]^2 / (\mu_1 - \mu_2)^2$)	Minimum required a sample size
association between gender and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.68$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for male}^* = 4.54$ $\mu_2 = \text{estimated mean for female}^* = 4.56$ $N = 2(0.68)^2(1.96+0.84)^2/(4.54-4.56)^2$	18126
association between ethnic group and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.66$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for chinese}^* = 4.37$ $\mu_2 = \text{estimated mean for indian}^* = 4.63$ $N = 2(0.66)^2(1.96+0.84)^2/(4.37-4.63)^2$	101
association between ethnic group and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.71$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for indian}^* = 4.63$ $\mu_2 = \text{estimated mean for malay}^* = 4.82$ $N = 2(0.71)^2(1.96+0.84)^2/(4.63-4.82)^2$	219
association between level of education and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.68$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for postgraduate}^* = 4.43$ $\mu_2 = \text{estimated mean for undergraduate}^* = 4.58$ $N = 2(0.68)^2(1.96+0.84)^2/(4.43-4.58)^2$	322
association between level of education and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.72$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for postgraduate}^* = 4.43$ $\mu_2 = \text{estimated mean for secondary school}^* = 4.69$ $N = 2(0.72)^2(1.96+0.84)^2/(4.43-4.69)^2$	120
association between level of education and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.66$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for postgraduate}^* = 4.43$ $\mu_2 = \text{estimated mean for pre-university}^* = 4.72$ $N = 2(0.66)^2(1.96+0.84)^2/(4.43-4.72)^2$	81
association between level of education and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.77$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for undergraduate}^* = 4.58$ $\mu_2 = \text{estimated mean for secondary school}^* = 4.69$ $N = 2(0.77)^2(1.96+0.84)^2/(4.58-4.69)^2$	768
association between level of education and positive mental health	$N = \text{sample size estimate}$ $\sigma = \text{pooled of standard deviation} = 0.75$ $Z_{1-\alpha/2} = \text{standard error associated with 95\% confidence interval} = 1.96$ $Z_{1-\beta} = \text{standard error associated with 80\% power} = 0.84$ $\mu_1 = \text{estimated mean for secondary school}^* = 4.69$ $\mu_2 = \text{estimated mean for pre-university}^* = 4.72$ $N = 2(0.75)^2(1.96+0.84)^2/(4.69-4.72)^2$	9800
*The data is based study by Picco et al. (2017) in Singapore.		

APPENDIX D

SECTION A : SOCIO DEMOGRAPHIC OF RESPONDENTS

Instruction: Please answer all questions in this section by ticking [/] the appropriate answer. /

Arahan: Sila jawab semua soalan pada bahagian ini dengan tandakan [/] pada jawapan berkaitan.

- Age/ *Umur*: _____
- Gender/ *Jantina*:
 - ☐ Male/ *Lelaki*
 - ☐ Female/ *Perempuan*
- Ethnicity/ *Kaum*:
 - ☐ Malay/ *Melayu*
 - ☐ Chinese/ *Cina*
 - ☐ Indian/ *India*
 - ☐ Others/ *Lain- lain*: _____
- Religion/ *Agama*:
 - ☐ Islam/ *Islam*
 - ☐ Buddha/ *Buddha*
 - ☐ Hinduism/ *Hindu*
 - ☐ Christianity/ *Kristian*
 - ☐ Others/ *Lain- lain*: _____
- Marital status/ *status perkahwinan*:
 - ☐ Single/ *Bujang*
 - ☐ Married/ *Berkahwin*
 - ☐ Divorced or widowed/ *Bercerai atau kematian suami/isteri*
- Education level/ *Tahap pengajian*:
 - ☐ Primary school/ *Sekolah Rendah*
 - ☐ Secondary school/ *Sekolah Menengah*
 - ☐ Pre-university (STPM/ STAM/ Matriculation/ Foundation/ Diploma) / *Pra-universiti*
(STPM/ STAM/ Matrikulasi/ Asasi/ Diploma)
 - ☐ Undergraduate/ *Ijazah Sarjana Muda*
 - ☐ Post-graduate/ *Pascasiswazah*
 - ☐ Others/ *Lain-lain*
- Monthly income/ *Pendapatan bulanan*:
 - ☐ less than RM2500/ *kurang daripada RM 2500*
 - ☐ RM2501 - RM3170/ *RM2501 - RM3170*
 - ☐ RM3171 - RM3970/ *RM3171- RM3970*
 - ☐ RM3971 - RM4850/ *RM3971 - RM4850*
 - ☐ RM4851 - RM10970/ *RM4851 - RM10970*
 - ☐ RM10971 and above/ *RM10971 ke atas*

SECTION B : POSITIVE MENTAL HEALTH INSTRUMENT (ENGLISH VERSION)

People do a lot of things when they feel stressed.

Below is a list of things that people do.

Please circle the number showing how much the statements describe you.

	When I feel stressed...	Not at all like me	Very slightly like me	Slightly like me	Moderately like me	Very much like me	Exactly like me
1	I try to move on	1	2	3	4	5	6
2	I try not to let it bother me	1	2	3	4	5	6
3	I tell myself that things would get better	1	2	3	4	5	6
4	I criticize myself	1	2	3	4	5	6
5	I try to relax	1	2	3	4	5	6
6	I try not to take it too seriously	1	2	3	4	5	6
7	I do something to get my mind off the situation	1	2	3	4	5	6
8	I get upset	1	2	3	4	5	6
9	I try to see it in a positive light	1	2	3	4	5	6
10	I try to see the humorous side of the situation	1	2	3	4	5	6
11	I try to solve the problem one step at a time	1	2	3	4	5	6

Please circle the number showing how much the statement describes you in general.

	In general..	Not at all like me	Very slightly like me	Slightly like me	Moderately like me	Very much like me	Exactly like me
12	I spend time with people I like	1	2	3	4	5	6
13	I try to get emotional support from family and friends	1	2	3	4	5	6

	In general..	Not at all like me	Very slightly like me	Slightly like me	Moderately like me	Very much like me	Exactly like me
14	I find comfort in my religion or spiritual beliefs	1	2	3	4	5	6
15	I hardly ever expect things to go my way	1	2	3	4	5	6
16	I get along well with others	1	2	3	4	5	6
17	I have people in my life who give me support	1	2	3	4	5	6
18	I have nobody to turn to in times of need	1	2	3	4	5	6
19	I have a close family	1	2	3	4	5	6
20	When I have a problem there is someone I can go to for advice	1	2	3	4	5	6
21	There is someone to cheer me up if I am having a bad day	1	2	3	4	5	6
22	When I am in a difficult situation there is someone I can rely on	1	2	3	4	5	6
23	I make friends easily	1	2	3	4	5	6
24	I make an effort to help others	1	2	3	4	5	6
25	I try to accept people as they are	1	2	3	4	5	6
26	I am not a spiritual person	1	2	3	4	5	6
27	I am willing to compromise with people	1	2	3	4	5	6

	In general..	Not at all like me	Very slightly like me	Slightly like me	Moderately like me	Very much like me	Exactly like me
28	I try to be patient with others	1	2	3	4	5	6
29	I like to go off on my own without other people	1	2	3	4	5	6
30	I am willing to give up something if it makes my family or friends happy	1	2	3	4	5	6
31	I have no trouble keeping friends	1	2	3	4	5	6
32	I am willing to share my time with others	1	2	3	4	5	6
33	I hesitate to ask others to help me	1	2	3	4	5	6
34	I believe God has a plan for me	1	2	3	4	5	6
35	I set aside time for meditation or prayer	1	2	3	4	5	6
36	I believe there is a higher being who looks after me	1	2	3	4	5	6
37	I feel God's presence in my life	1	2	3	4	5	6
38	I rely only on myself	1	2	3	4	5	6
39	I gain spiritual strength by trusting in a higher power	1	2	3	4	5	6
40	My religious beliefs influence the way I live	1	2	3	4	5	6

	In general..	Not at all like me	Very slightly like me	Slightly like me	Moderately like me	Very much like me	Exactly like me
41	I have confidence in the decisions I make	1	2	3	4	5	6
42	I feel comfortable expressing my opinions	1	2	3	4	5	6
43	I am able to control many situations around me	1	2	3	4	5	6
44	I have freedom to make choices that concern my future	1	2	3	4	5	6
45	I have nothing to look forward to	1	2	3	4	5	6
46	I feel in control of my life	1	2	3	4	5	6
47	I work hard to achieve my goals	1	2	3	4	5	6
48	I am clear about what I want in life	1	2	3	4	5	6
49	I am able to solve my own problems	1	2	3	4	5	6
50	I am focused on what I want to do in life	1	2	3	4	5	6
51	I have little control over the things that happen to me	1	2	3	4	5	6
52	I know what I need to do to reach my goals	1	2	3	4	5	6

How often in the past 4 weeks have you felt...

		Never or very rarely	Rarely	Sometimes	Often	Very often or always
53	Calm	1	2	3	4	5
54	Happy	1	2	3	4	5
55	Peaceful	1	2	3	4	5
56	Relaxed	1	2	3	4	5
57	Enthusiastic	1	2	3	4	5

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Positive Mental Health Instrument

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Vaingankar JA, Subramaniam M, Chong SA, Abdin E, Orlando Edelen M, Picco L, Lim YW, Phua MY, Chua BY, Tee JYS, Sherbourne C. The Positive Mental Health Instrument: Development and validation of a culturally relevant scale in a multi-ethnic Asian population. *Health and Quality of Life Outcomes* 2011, 9:92
- 7) you will provide a copy of your published article to Dr Mythily Subramaniam

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Dr Mythily Subramaniam
Research Division
Institute of Mental Health, Singapore
Tel +65 63893633
Fax +65 63892795
Email mythily@imh.com.sg

SECTION B : POSITIVE MENTAL HEALTH INSTRUMENT (MALAY VERSION)

Seseorang melakukan banyak perkara apabila tertekan.

Senarai di bawah ini menunjukkan perkara- perkara yang seseorang lakukan.

Sila bulatkan nombor yang menunjukkan sejauh manakah kenyataan tersebut menerangkan tentang diri anda.

	Apabila saya rasa tertekan	Langsung tidak	Sangat sedikit	Sedikit	Sederhana	Sangat	Benar- benar
1	Saya cuba meneruskan kehidupan	1	2	3	4	5	6
2	Saya cuba memastikan tekanan itu tidak mengganggu saya	1	2	3	4	5	6
3	Saya memberitahu diri saya bahawa keadaan akan menjadi lebih baik	1	2	3	4	5	6
4	Saya mengkritik diri saya	1	2	3	4	5	6
5	Saya cuba bertenang	1	2	3	4	5	6
6	Saya cuba tidak mengambilnya secara terlalu serius	1	2	3	4	5	6
7	Saya membuat sesuatu untuk melupakan keadaan itu buat seketika	1	2	3	4	5	6
8	Saya terganggu	1	2	3	4	5	6
9	Saya cuba melihatnya dari sudut positif	1	2	3	4	5	6
10	Saya cuba mencari aspek lucu dalam keadaan tersebut	1	2	3	4	5	6
11	Saya cuba menyelesaikan masalah selangkah demi selangkah	1	2	3	4	5	6

	Secara amnya..	Langsung tidak	Sangat sedikit	Sedikit	Sederhana	Sangat	Benar- benar
12	Saya meluangkan masa dengan orang yang saya suka	1	2	3	4	5	6

	Secara amnya..	Langsung tidak	Sangat sedikit	Sedikit	Sederhana	Sangat	Benar- benar
13	Saya cuba mendapatkan sokongan emosi daripada keluarga dan kawan-kawan	1	2	3	4	5	6
14	Saya mendapatkan ketenangan melalui kepercayaan agama atau kerohanian	1	2	3	4	5	6
15	Saya jarang-jarang sekali mengharapkan perkara berpihak dengan diri saya	1	2	3	4	5	6
16	Saya mudah bergaul dengan orang lain	1	2	3	4	5	6
17	Ada orang dalam kehidupan saya yang memberikan sokongan	1	2	3	4	5	6
18	Tiada sesiapa yang boleh saya harapkan pada masa kesusahan	1	2	3	4	5	6
19	Keluarga saya rapat antara satu sama lain	1	2	3	4	5	6
20	Apabila bermasalah,saya boleh mendapatkan nasihat daripada seseorang	1	2	3	4	5	6
21	Ada orang yang boleh menceriakan saya jika saya mengalami kesusahan	1	2	3	4	5	6
22	Apabila berada dalam kesusahan,ada orang yang boleh saya harapkan	1	2	3	4	5	6
23	Saya mudah berkawan	1	2	3	4	5	6
24	Saya berusaha untuk membantu orang lain	1	2	3	4	5	6
25	Saya cuba menerima orang lain seadanya	1	2	3	4	5	6

	Secara amnya..	Langsung tidak	Sangat sedikit	Sedikit	Sederhana	Sangat	Benar- benar
26	Saya bukan seorang yang beragama/berjiwa kerohanian	1	2	3	4	5	6
27	Saya bersedia bertolak ansur dengan orang lain	1	2	3	4	5	6
28	Saya cuba bersabar dengan orang lain	1	2	3	4	5	6
29	Saya suka keluar bersendirian	1	2	3	4	5	6
30	Saya sanggup mengorbankan sesuatu jika ia menggembirakan keluarga atau kawan saya	1	2	3	4	5	6
31	Saya tiada masalah untuk mengekalkan persahabatan	1	2	3	4	5	6
32	Saya sanggup berkongsi masa saya dengan orang lain	1	2	3	4	5	6
33	Saya berasa keberatan untuk meminta pertolongan daripada orang lain	1	2	3	4	5	6
34	Saya percaya Tuhan ada rancangan untuk saya	1	2	3	4	5	6
35	Saya meluangkan masa untuk bertafakur atau sembahyang	1	2	3	4	5	6
36	Saya yakin ada Tuhan/kewujudan lebih berkuasa yang menjaga saya	1	2	3	4	5	6
37	Saya rasakan kehadiran Tuhan di dalam kehidupan saya	1	2	3	4	5	6
38	Saya hanya bergantung kepada diri sendir	1	2	3	4	5	6
39	Saya mendapat kekuatan kerohanian melalui kepercayaan agama saya	1	2	3	4	5	6

	Secara amnya..	Langsung tidak	Sangat sedikit	Sedikit	Sederhana	Sangat	Benar- benar
40	Kepercayaan agama mempengaruhi cara saya menjalani kehidupan	1	2	3	4	5	6
41	Saya mempunyai keyakinan dengan keputusan yang saya buat	1	2	3	4	5	6
42	Saya selesa menyatakan pendapat saya	1	2	3	4	5	6
43	Saya dapat mengawal banyak situasi di sekeliling saya	1	2	3	4	5	6
44	Saya mempunyai kebebasan untuk membuat pilihan yang berkaitan masa depan saya	1	2	3	4	5	6
45	Tiada apa-apa yang boleh saya harapkan untuk masa depan	1	2	3	4	5	6
46	Saya rasa saya boleh mengawal kehidupan saya	1	2	3	4	5	6
47	Saya berkerja keras untuk mencapai matlamat saya	1	2	3	4	5	6
48	Saya jelas tentang perkara yang saya mahukan dalam kehidupan	1	2	3	4	5	6
49	Saya dapat menyelesaikan masalah saya sendiri	1	2	3	4	5	6
50	Saya fokus tentang perkara yang ingin saya lakukan dalam kehidupan	1	2	3	4	5	6
51	Saya mempunyai sedikit kawalan terhadap perkara-perkara yang berlaku ke atas diri saya	1	2	3	4	5	6
52	Saya tahu perkara yang perlu dilakukan untuk mencapai matlamat saya	1	2	3	4	5	6

Dalam masa 4 minggu yang lalu, berapa kerapkah anda berasa...						
		Tidak pernah atau sangat jarang	Jarang- jarang sekali	Kadang-kadang	Kerap	Sangat kerap atau sentiasa
53	Tenang	1	2	3	4	5
54	Gembira	1	2	3	4	5
55	Tenteram	1	2	3	4	5
56	Relaks	1	2	3	4	5
57	Bersemangat	1	2	3	4	5

Dalam masa 4 minggu yang lalu, berapa kerapkah anda berasa...						
		Tidak pernah atau sangat jarang	Jarang- jarang sekali	Kadang-kadang	Kerap	Sangat kerap atau sentiasa
53	Tenang	1	2	3	4	5
54	Gembira	1	2	3	4	5
55	Tenteram	1	2	3	4	5
56	Relaks	1	2	3	4	5
57	Bersemangat	1	2	3	4	5

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APPENDIX E

Stages of Research	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT
Proposal preparation							
Submission of proposal							
Proposal presentation							
Preparation of ethical approval to organisation							
Data collection and analysis							
Presentation of analysed data							
Report writing							
Poster Submission							
Final presentation							
Final report submission							

APPENDIX F

Item	Cost (RM)
Printing	100.00
Binding	5.00
Total	105.00



APPENDIX G



Positive Mental Health B40 <bpositivementalhealth@gmail.com>

Letter Seeking Permission to Use Positive Mental Health Instrument

Vaingankar Janhavi Ajit (IMH) <janhavi_vaingankar@imh.com.sg>
To: Positive Mental Health B40 <bpositivementalhealth@gmail.com>

Wed, May 13, 2020 at 2:03 PM

Message Classification: Restricted

Dear Shazza,

Glad to know of your interest in the PMH instrument. It is available free of cost for non-commercial use. You can use it for your study. However, I just need some information for my records. Could you please provide me the below?

Affiliation (eg University):

Study title:

Broad aims of the study:

Study sample size:

Study population:

Study site:

Estimated start date:

Study duration:

Scale version: PMHI-47 items / Short PMHI (19 items) / Rapid PMI (6 items, uni-dimensional)

Language: English/ Malay/ Chinese/ Tamil

I shall email the scale and scoring information once I hear back from you.

Thanks.

Best wishes,

Janhavi



Positive Mental Health B40 <bpositivementalhealth@gmail.com>

Letter Seeking Permission to Use Positive Mental Health Instrument

Vaingankar Janhavi Ajit (IMH) <janhavi_vaingankar@imh.com.sg>
To: Positive Mental Health B40 <bpositivementalhealth@gmail.com>

Mon, May 18, 2020 at 8:45 AM

Message Classification: Restricted

Dear Shazza,

Thanks for the information. Here are the scales as requested.

Would be good for us if you could let us know of your experience of using the scale in your population.

Thanks.

Regards,

[Quoted text hidden]

4 attachments

-  **PMHI_Malay.pdf**
347K
 -  **Positive Mental Health Instrument - English.pdf**
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