UNIVERSITI PUTRA MALAYSIA

VALIDITY AND RELIABILITY OF KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) QUESTIONNAIRE ON FRAILTY SYNDROME AND ITS PREVENTION AMONG ELDERLY RESIDENTS IN PPR FLATS, KUALA LUMPUR.

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BY

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A project submitted as a partial fulfillment of the requirement for the degree of Bachelor of Science (Nutrition and Community Health) from the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia.

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VALIDITY AND RELIABILITY OF KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) QUESTIONNAIRE ON FRAILTY SYNDROME AND ITS PREVENTION AMONG ELDERLY RESIDENTS IN PPR FLATS, KUALA LUMPUR

Nur Adilah binti Mohd Zawawi

Frailty syndrome is a common clinical syndrome in older adults that have a high risk for poor health outcomes including falls, incident disability, hospitalization, and mortality. In Malaysia, frailty syndrome is expected to be a common problem among senior citizen. Frailty syndrome can be prevent by nutrition and exercise intervention. An intervention had been developed in order to reduce the prevalence of frailty syndrome in Malaysia. In order to assess the effectiveness of this intervention, a KAP had been developed. The aim of this study to determine the validity and reliability of KAP questionnaire on frailty syndrome and its prevention among elderly residents in PPR flats, Kuala Lumpur. A cross sectional design was conducted among elderly (≥60 years old) which were randomly recruited in this study. Socio-demographic background, content validity, face validity and internal consistency were analysed. Content validity index (CVI) and Cronbach's alpha was used in order to determine the validity and reliability of the KAP. The result that shows good content validity is knowledge and practice section is (CVI>0.9.) while attitude section is (CVI=0.7). Cronbach's alpha for knowledge, attitude and practice were 0.528, 0.574 and 0.383, respectively. The results of the validation study suggested that the KAP scales on frailty syndrome and its prevention need to be further revised so it can be used to assess the effectiveness of the intervention

ABSTRAK

KESAHAN DAN KEBOLEHPERCAYAAN SOAL SELIDIK SOAL SELIDIK KAP MENGENAI SINDROM KEUZURAN DAN PENCEGAHANNYA DI KALANGAN WARGA TUA DI FLAT PPR, KUALA LUMPUR

Nur Adilah binti Mohd Zawawi

Sindrom keuzuran adalah sindrom klinikal yang biasa terjadi dalam kalangan warga emas yang berisiko tinggi untuk jatuh, mengalami kecacatan, dimasukkan ke hospital, dan juga kematian. Di Malaysia, sindrom keuzuran dijangka menjadi kebiasaan dalam kalangan warga emas. Sindrom keuzuran boleh dicegah melalui intervensi pemakanan dan senaman. Sebuah intervensi telah dilaksanakan untuk mengurangkan peratus sindrom keuzuran di Malaysia. Untuk menilai impak intervensi ini, satu soal selidik KAP telah dihasilkan. Tujuan kajian ini untuk menentukan kesahan dan kebolehpercayaan soal selidik KAP mengenai sindrom keuzuran dan pencegahannya di kalangan warga tua di flat PPR, Kuala Lumpur. Keratan rentas telah dijalankan di kalangan orang tua (≥60 tahun) yang secara rawak direkrut dalam kajian ini. Latar belakang sosio-demografi, kesahan kandungan, kesahan muka dan konsistensi dalaman dianalisis. Nisbah kesahan kandungan (CVR) dan alpha Cronbach digunakan untuk menentukan kesahan dan kebolehpercayaan KAP. Keputusan yang menunjukkan kesahan kandungan yang baik adalah bahagian pengetahuan dan amalan (CVR> 0.9.) Manakala bahagian sikap (CVR = 0.7). Alfa Cronbach untuk pengetahuan, sikap dan amalan adalah 0.528, 0.574 dan 0.383. Keputusan kajian pengesahan mencadangkan bahawa skala KAP terhadap sindrom keuzuran dan pencegahannya perlu disemak selanjutnya supaya dapat digunakan untuk menilai keberkesanan intervensi.

CHAPTER 1

INTRODUCTION

1.1 Background

Frailty syndrome is a common clinical syndrome in older adults that have a high risk for poor health outcomes including falls, incident disability, hospitalization, and mortality (Xue, 2012). According to Fried et al., (1991), frailty syndrome was defined as a clinical syndrome if there are three or more criteria were present: unintentional weight loss, self-reported exhaustion, weak grip strength, slow walking speed, and low physical activity. A pre-frail stage is when elderly have one or two out of five criteria and it has a high risk of progressing to frailty. According to a study that conducted by Sousa-Santos et al., (2018), the prevalence of frail in Portuguese elderly is one fifth whereas half are pre-frail. In Malaysia, frailty syndrome is expected to be a common problem among senior citizen. The prevalence of frailty among community-dwelling elderly in East Coast of Peninsular Malaysia is 18.3% (Fairus Asma et al., 2018). According to Sathasivam, Kamaruzzaman, Hairi, Ng, & Chinna (2015), the prevalence of frailty in an Urban District in Malaysia was 5.7%, and 61.8% of the respondents were pre-frail. Some of the professionals had some misconceptions that frailty is an irreversible process. People who

are pre-frail are more common to get fall, institutionalization, and mortality compared to non-frail but lower risk than frail (Conroy & Elliott, 2016).

According to Takano et al., (2016), the frail syndrome can be prevented in pre-frail by using physical activity intervention. A few studies show that physical activity can prevent the progression of pre-frailty and frailty. A study by Apóstolo et al., (2018) found that physical activity is generally effective in reducing or postponing frailty but when only group or classes intervention is used. This finding also states that any type of exercise was effective in reducing the level of frailty in individuals.

Besides focusing on physical activity intervention to prevent or postpone the frailty syndrome, studies also proved that nutrition plays an important role. Finding from a study identify that nutritional intervention is effective on reversing or delaying the progression of frailty (Gray & Argaez, 2018). In addition, a randomized controlled trial study by Gray & Argaez (2018) conclude that physical, nutritional and cognitive intervention was effective in reversing frailty among the elderly.

In Malaysia, more intervention is needed to educate the elderly about frailty syndrome focusing on nutrition and exercise education. An intervention module had been developed to educate pre-frail elderly about the importance of nutrition and exercise to prevent or postponing frailty syndrome. Hence, to assess the effectiveness of this module, a KAP Questionnaire on frailty syndrome may suitable to evaluate this particular intervention. KAP questionnaire also can act as a baseline for use in the future assessment. Therefore, the purpose of this study is to test the validity and reliability of knowledge, attitude and practice (KAP) Questionnaire on frailty syndrome and its prevention among elderly residents in PPR flats, Kuala Lumpur.

1.2 Problem statement

Frailty syndrome is a global issue and it becomes more worried in Malaysia. Older adults are the common group that facing this syndrome. According to Sathasivam, Kamaruzzaman, Hairi, Ng, & Chinna (2015), the prevalence of frailty in an Urban District in Malaysia was 5.7%, and 61.8% of the respondents were pre-frail. The increasing prevalence shows that people is still lacking knowledge about the frailty syndrome. This study is a part of main intervention module entitled "Modul Senaman dan Pemakanan bagi mencegah sindrom keuzuran dalam kalangan warga emas di Malaysia". The aim of this this module is to educate elderly about the prevention of frailty syndrome as well as references for health professionals in overcoming frailty syndrome among elderly. Basically, elderly from PPR flats, Kuala Lumpur were involved in this intervention. In this intervention, participants were involve on few talk session about frailty, exercise and also nutrition. Elderly involved in exercise training that was conducted by physiotherapist based on the module once for every two weeks. One session required about one hour. On alternate week, elderly will join a group diet counselling conducted by dietitian of facilitator using learning aid such as poster, flip chart and also slides that had been made based on the intervention module.

Before the implementation of the intervention module, a knowledge, attitude and practice questionnaire was developed. The validity and reliability of the questionnaire was tested among elderly which have similar characteristics to the elderly in the main study. In order to assess the effectiveness of the intervention, elderly need to complete the KAP at four points in the study. The first point is before the intervention to act as baseline data. Second point is in the middle of the intervention. Third point is after of the intervention

and the fourth point is three months after the intervention. The aim of this process is to assess the understanding of the participants along the intervention.

Elderly in PPR was chosen because in the previous study, elderly who lives in rural area probably having an economical disadvantages. These population have high risk of malnutrition thus it also increase the risk of frailty syndrome. However, there was less study about frailty syndrome in urban area such as in PPR. PPR is a low cost flat that had been subsidized by government and to help providing house to low income people. Hence, elderly in PPR also have high risk of getting frailty syndrome.

Most of existing instrument were developed to measure effectiveness of certain intervention. One of existing instrument is malnutrition knowledge, attitude and practice (M-KAP) which is to identify current knowledge, attitude and practice of staff. However, knowledge, attitude and practice questionnaire on frailty syndrome was limited in Malaysia. Therefore, it is needed to develop validate and reliable KAP on frailty syndrome and its prevention.

The purpose of this study is to test the validity and reliability of KAP questionnaire on frailty syndrome and its prevention so that it can be a useful instrument in future research. KAP questionnaire also can be used to measure the effectiveness of an intervention.

1.3 Research question

Research question below was addressed:-

Is KAP questionnaire on frailty syndrome prevention questionnaire among elderly residents in PPR flats, Kuala Lumpur valid and reliable?

1.4 Significance of study

This study was undertaken to test the validity and reliability of KAP questionnaire on frailty syndrome and its prevention questionnaire. The outcome of this study is to ensure the questionnaire is valid and reliable hence it can be an easy-to-use, quick, reliable and valid questionnaire to assess the knowledge, attitude and practice on frailty prevention syndrome among elderly. The result obtain will help researcher to help to know deeper about frailty syndrome hence can help elderly to improve their practice toward frailty syndrome and to measure the effectiveness of an intervention. It also can serve as guideline for health intervention planner and also as a base to compare with other studies in the future. Other than that, the finding from this study is to ensure the questionnaire can be used in future study.

1.5 Objectives

1.5.1 General Objective

To determine the validity and reliability of KAP questionnaire on frailty syndrome and its prevention in PPR flats, Kuala Lumpur.

1.5.2 Specific Objectives

To determine the content and face validity of the KAP questionnaire.

To determine the internal consistency reliability of the KAP questionnaire.

1.6 Research hypothesis

The KAP questionnaire is valid and reliable to measure the knowledge, attitude and practice on frailty syndrome prevention among elderly in PPR flats, Kuala Lumpur.

1.7 Conceptual framework

This study is to develop and to test the validity and reliability of KAP questionnaire on frailty syndrome and its prevention. Figure 1 shows the conceptual framework of the study. Content and face validity will be used to determine the validity while internal consistency reliability will be used to determine the reliability.

The development of KAP on frailty syndrome questionnaire is developed after an extensive literature search using keywords such as KAP questionnaire, KAP study, validity and reliability. The literature search is acquired from Science Direct, Pub Med and also SAGE Journal Search. This questionnaire focus about the knowledge, attitude and practice on frailty syndrome and its prevention. Each of the question in the questionnaire is subjected for it content validity. Content validity is most often measured by relying on the experts with the construct being measured. The experts give feedback and the feedback then will be analyzed. Content validity usually being measured by seven or more experts. Whereas for face validity, it is a subjective assessment whether the questionnaire measures what it supposed to measure. The reviewers will look at the items and decide either agree or not that the test is valid to measure the concept which is being measured just on the face of it. Face validity will be pre-test to few respondents (n=11) to assess the validity. To test the internal consistency reliability of the KAP questionnaire, 110 participants will be involved. Internal consistency reliability is measured using Cronbach's Alpha ($\alpha > 0.7$).

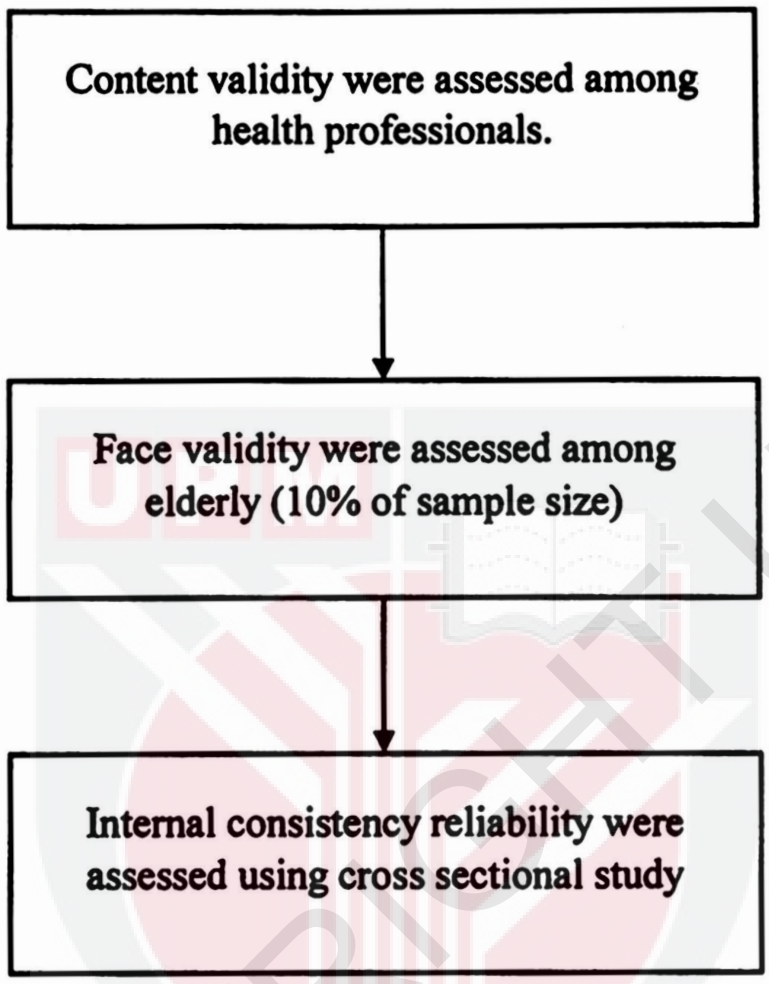

Figure 1.1: Conceptual framework of this study

CHAPTER 2

LITERATURE REVIEW

2.1 Frailty syndrome

2.1.1 Definition

Frailty is a multidimensional syndrome that may affect the elderly and cause implications that might cause important care for them. Generally, frailty syndrome is known as increasing in vulnerability that cause by aging (Xue, 2012). However, according to Conroy & Elliott (2016), there are two ways on how to define frailty. First, frailty can be describe through rule-based definition which it is a pre-list that content component that had been designed to assess individual patients. Based on Fried et.al, there are five criteria that can be assess to recognized frailty syndrome which are loss of weight, weakness, exhaustion, slowness and low activity. A person is categorized as frail if have more than three criteria while pre-fail when a person have two or one from five criteria. The second way on how to describe frailty is through Frailty Index (FI). Frailty Index is a scale that rely on principles of accumulation of deficits and their relation with frailty. If they a person

have more deficits hence they have high risk to be frail. However, by a study conducted by Parish et al, (2018), the knowledge and awareness of frailty syndrome among elderly is still not essential and rarely addressed.

2.1.2 Prevalence of frailty syndrome

Many studies have been conducted to examine the prevalence of frailty syndrome among elderly. A study shows that the overall prevalence of frailty in community-dwelling in United States which is adults age 65 years old and above is ranges 7-12% (Xue, 2012). In the Cardiovascular Health Study also proves that prevalence of frailty syndrome is higher in female (8%) compared to male which is 5%. (Linda P Fried et al., 1991). Next, based on a study that had been conducted by Siriwardhana et al. (2018) which is a review research on prevalence of pre-frailty and frailty among community dwelling in low middle income countries (LMIC), the result shows that there is higher prevalence of pre-frailty and frailty in community-dwelling in lower middle-income countries compared to high income countries. In Malaysia, the prevalence of frailty syndrome among community-dwelling elderly in East-Coast of Peninsular Malaysia is 18.3%. This study involves 279 older adults aged 60 years and above and they were randomly selected (Fairus Asma et al., 2018). According to Badrasawi, Shahar, & Kaur Ajit Singh (2017), the prevalence of frailty among multi-ethnic community dwelling for older adults in Malaysia was 8.9% and pre-frailty was 61.7%.

2.1.3 Risk factors of frailty syndrome

There are few risk factors that can lead to frailty syndrome. A longitudinal quantitative study that involved 262 older adults which age 65 years old and above shows that older people who lives without partner have an association with frailty. Other than that, increasing in age and low educational level among elderly can lead to frailty. As a person become older, they will having decreasing in functional capacity throughout the time. This study also shows that female (M: 61.35) have higher prevalence to get frailty compared to male (M–38.7%) (Roberto, Fhon, Aparecida, Rodrigues, & Ferreira, 2018). Next, a study conducted by Pegorari & Tavares (2014) to recognize the development and elements associated with pre-failed and frailty among elderly. This study is a cross-sectional, observational and analytical household survey and involves 958 elderly lives in urban. This study discover that being 80 years and above have high risk to get frailty syndrome. Furthermore, the higher usage of medicine and also negative perception of life are also associated with frailty syndrome. This study also support that absence of partner associated with pre-frailty.

2.2 Intervention for frailty syndrome prevention

2.2.1 Exercise intervention

Frailty syndrome associated with decrease in physical activity level, poor exercise tolerance and also lose of lean body and muscle mass. Aerobic endurance and resistance training were significantly found can improve peak oxygen consumption and also increase muscle strength and muscle mass (Aguirre & Villareal, 2016). According to L. P. Fried et

al., (2001), exercise can be an effective strategy to prevent frailty as it target four out of five criteria: weakness, low physical activity, slowed motor performance and poor exercise tolerance. Based on Lifestyle Intervention and Independence for Elders (Life) pilot study, it was reported that a 12 months program of walking, resistance exercise and flexibility training can improve the physical performance (Pahor, 2006). The Frailty Intervention Trial (FIT) which also assess whether a multifactorial intervention can reduce frailty and improve mobility found that after 12 months of intervention there were low prevalence of frailty in the intervention group compared to the control group (Fairhall et al., 2008). Thus, multicomponent training have positive effect on functional ability and adverse health consequences (Aguirre & Villareal, 2016).

2.2.2 Nutritional intervention

Apart from exercise, few studies found that nutrition also associated with frailty syndrome. A study conducted by Bartali et al., (2006) which is to examine whether low nutrient and energy intake associated with frailty involves data from 802 persons aged 65 years and above were used. The result shows that elderly which consume less than 21 kcal/kg/day was associated with frailty. This study also found that low nutritional status can lead to exhaustion and low muscle strength which both of them are frailty criteria. Other study found that there is association between frailty syndrome and nutritional status in elderly (Bollwein et al., 2013). Results shows that 90% of those who at risk of malnutrition were either pre-frail or frail. Other than that, a study conducted by Dorner et al., (2014) which is cross sectional study involves 133 men, revealed that there is relationship between nutritional status and frailty. This is because there is strong

association between frailty criteria (SHARE-FI) and MNA-SF items. This study also found that about 36% to 57% of the frail persons were malnourished or at risk of malnutrition.

2.2.3 Combination of nutrition and exercise intervention

There are a lot of intervention that focus on exercise and nutrition to prevent frailty syndrome among elderly. Few studies have proven that these two components can decrease the frailty syndrome. A study conducted by Cameron et al., (2015) shows that increased in physical activity can increase or improve physical function such as strength, mobility and endurance and also intervention that focus on nutrition supplement along with exercise can improves someone's strength and also increased their energy intake. The intervention group have lower prevalence toward frailty syndrome compared to control group. This results also supported by a systematic review done by Lee, Lee, and Chan (2012). It shows that exercise can improve physical, psychosocial, social and role function. However, from this study they had broaden the knowledge that exercise also can decrease the fear of falling. Other scoping review done showed that physical activity with any type of combination of intervention reduce the amount of frailty syndrome markers (Uts et al., 2017). Other than physical activity, nutrition also important in preventing frailty syndrome. As stated by Wleklik, Lisiak, and Gobbens (2018), a complex or mixture components such as nutrition and exercise are likely to be more impactful compare to others. This findings also supported by a study conducted by Nascimento, Ingles, Salvador-pascual, Cominetti, and Gomez-cabrera (2018) which they conclude that combination of exercise and nutrition is more effective in the management of frailty.

2.3 Validation of KAP questionnaire

Two types of validation test are used which are content validity and face validity. Validity basically means "measure what is intended to be measured" (Field, 2005). Content validity is the extent of the items measured assess the same content. (Hiew et al., 2015). As stated by Zamanzadeh, Ghahramanian, Rassouli, Abbaszadeh, abd Alavi (2015), content validity is a two-stage process where the first stage is where the instrument is designed and the second stage is the instrument is assess by experts such as professionals between theoretical and operational definitions. Content validity is also to measure or assess the quality of the items in a questionnaire or survey (Markus, Smith, & Salkind, 2018).Whereas, face validity is use to determine the perception of the respondents to assess the appropriateness of a questionnaire or survey (Hiew et al., 2015). Face validity refers to researchers' subjective assessments of the presentation and relevance of the measuring instrument as to whether the items in the instrument appear to be relevant, reasonable, unambiguous and clear. It evaluates the appearance of the questionnaire in terms of feasibility, readability, consistency of style and formatting, and the clarity of the language used. (Oluwatayo, 2012). Face validity were assessed by potential examines (Chen, Soo, Rahman, Rostenberghe, & Harith, 2013).

2.4 Reliability of KAP questionnaire

Reliability is when an instrument produce the same result when a test is done repeatedly under same condition. Internal consistency reliability aims to determine the similarity of items or set of items to each other (Hiew et al., 2015). To measure internal consistency reliability, researcher used Cronbach's Alpha (Taherdoost & Group, 2017). The acceptable value for Cronbach's Alpha is $\alpha \geq 0.7$ (Cronbach, 1951).

CHAPTER 3

METHODOLOGY

This study contain of three phase. The first phase was to determine the content validity, second phase was to determine the face validity and the third phase was to determine internal consistency reliability (Figure 3.1).

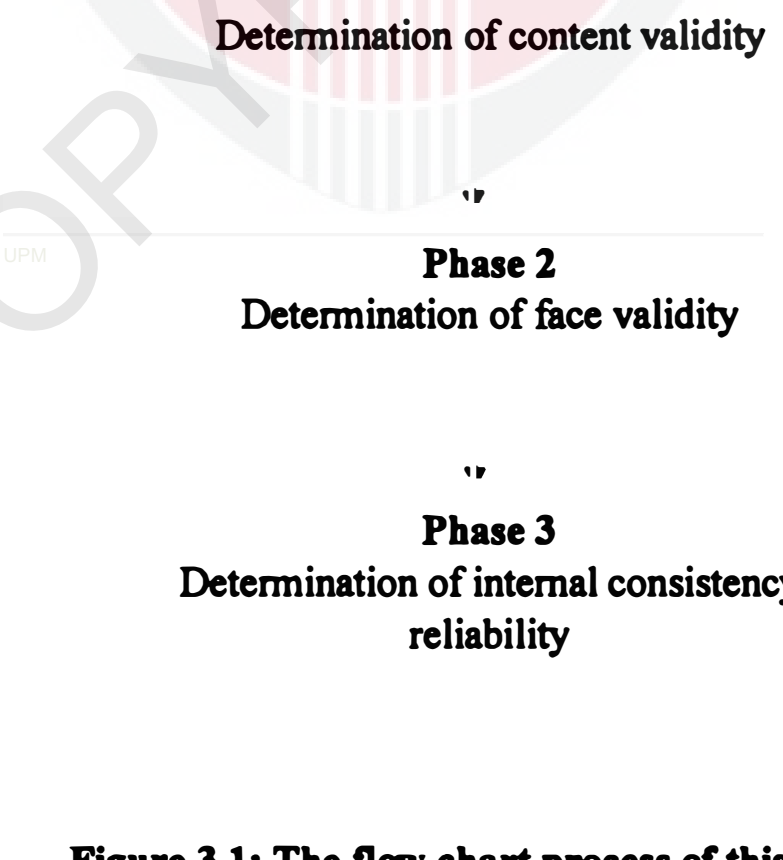

Figure 3.1: The flow chart process of this study

3. 1 Phase 1: Content Validity

The first phase of this study was to determine the content validity of the questionnaire. Content validity was assessed right after the KAP had been developed. The aim of this phase is to measure the ability of the selected items to reflect the variables of the construct in the measure. Content validity was reviewed by a team of expert which comprising of two dietitians and two nutritionist. Content validity was rated based on four categories: content relevance, clarity, simplicity and ambiguity (Chen et al., 2013). The experts will rated each item in the KAP as "essential", "useful", and "not necessary". The content validity ratio (CVR) were then calculated using formula below:

$$\text{CVR}_i = \frac{n - \frac{N}{2}}{\frac{N}{2}}$$

where,

CVR_i = value of an item of the test

n = number of experts indicating that item essential

N = total number of experts in the panel

Miller, Lovler and McIntire (2013) state that a CVR rating by five or less experts should be at least 0.99 when accepting or retaining specific item. Content validity index (CVI) is the average of CVR for every section.

3.2 Phase 2: Face Validity

The aim of this phase was to determine the perception of respondents on the appropriateness of a test. On the other hand, face validity is known as pre-testing. Other than to measure the perception of respondents, face validity is also to test the language and also to identify any terms that cannot be understood by the elderly hence it can be modified after received the feedback. Face validity was pre-tested among elderly which have the same characteristics as the selection criteria. 10% from the sample size (n= 11) will be chosen. In this study, face validity was pre-tested at PPR Seri Kembangan.

3.3 Phase 3 : Construct Validity

The third phase was to determine the internal consistency reliability of the questionnaire. The aim of this phase was to determine the similarity of items or set of items to each other.

3.3.1 Study design

This was a cross-sectional study that aims was to test the internal consistency reliability of KAP questionnaire on frailty syndrome and its prevention in Projek Perumahan Rakyat (PPR) flats, Kuala Lumpur.

3.3.2 Study location

This study was conducted among elderly in PPR flats, Kuala Lumpur. Kuala Lumpur is the largest city of Malaysia. The estimated area is 243.65 sq km. Kuala Lumpur have 31 PPR flats in total. Six PPR flats out of 31 will be chosen.

3.3.3 Sample size determination

For the sample size calculation, a ten respondents to one variable ratio was used for the calculation of respondents needed (Hair, Black, Babin, & Anderson, n.d.) In other words, the number of respondents required for the study is equivalent to the number of items in the questionnaire multiply by ten (Hair et al., 2009). Since all section contain same number of items (10 items), the sample size required is 100 respondents. Considered non response rate, 10% from sample size is added.

$10 \times 10 = 100$ respondents

$\frac{10}{100} \times 100 = 10$ respondents (consider 10% non-response rate)

$100 + 10 = 110$ respondents

Hence, the sample size required was 110 respondents.

3.3.4 Sampling design

PPR selection

For PPR selection, PPR Intan Baiduri, PPR Sg Bonus, PPR Sri Alam, PPR Seri Semarak, PPR Pekan Batu and PPR Kg Batu Air Panas were chosen from 31 PPR flats using simple random sampling.

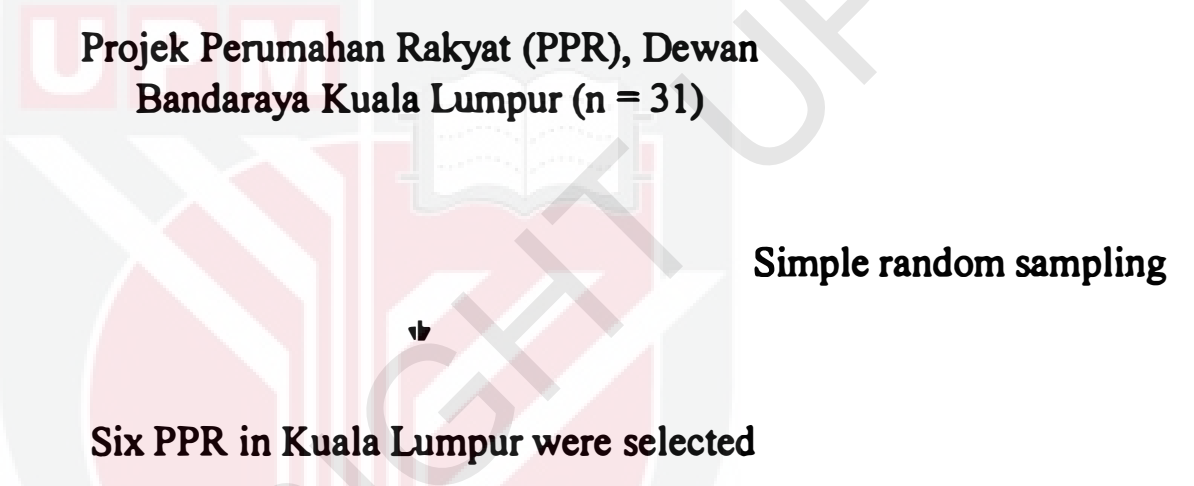

Figure 3.2: Process of PPR selection

Respondent selection

For respondent selection, a list name of elderly was obtained from the community leader. Twenty respondents were chosen using simple random sampling. Hence, total of 120 respondents were obtained from six PPR.

List names of elderly were obtained from community leader

Simple random sampling

At least 20 respondents were selected from each PPR

Total of 120 were obtained from six PPR.

Figure 3.4: Process of respondents selection

3.4 Subjects

The subjects involved in this study was elderly aged 60 and above. Respondents were selected based on the inclusion and exclusion criteria as stated in Table 1. Elderly was divided into two group. The first group consist of 11 elderly which was pre-tested to determine the face validity. The second group of elderly which consist of 110 elderly was selected to determine the internal consistency reliability.

Table 3.1 Inclusion and exclusion criteria of the respondents

Inclusion	Exclusion
60 years old and above	Critically ill respondents (intensive care such as ventilated or sedated)
Able to communicate	Having cognitive impairment
Male or female	

3.5 Research Instruments

A face-to-face interview was used in this study. The questionnaire consisted of four components which are socio-demographic background, knowledge, attitude and practice.

3.6 The development of KAP

The KAP questionnaire consist of three section which are knowledge, attitude and practice related to frailty syndrome which focus on nutrition and exercise. This KAP was used to assess the knowledge, attitude and practice on frailty syndrome as well as to determine specific focus for future intervention. This KAP was tailored based on the intervention module for elderly lives in PPR so that it can ensure the scopes is relevant and can be evaluate among the target group before and after the intervention program. This KAP questionnaire was developed in national language (Malay) so that it can be easily understand.

3.6.1 Socio-demographic background

This section contained subject's personal information which are location, sex, age, ethnicity, marital status, education and household income.

3.6.2 Development of knowledge in KAP

This section aimed to assess the knowledge on frailty syndrome and its prevention. This section was derived from the intervention module. Items developed in knowledge section comprised frailty syndrome elements with reference to the "Kempen Cara Hidup Sihat", 2004. This section was used to assess the knowledge about frailty syndrome and its prevention. This sections consist of 10 items. This section was developed in the form of multiple choice questions with four choices and only one correct answer. One point was given to the correct answer while zero point is given to incorrect answer. A higher total score indicates a better knowledge about the frailty syndrome and its prevention. Hence, the possible score range for knowledge section is 0 to 10 points.

3.6.3 Development of attitude in KAP

Items developed in this attitude section focused on the attitudes towards the prevention of frailty syndrome. These items were derived from the intervention module. This section consists of 10 items. Each items were rated on a 4-point Likert scale, which includes "strongly disagree", "disagree", "agree" and "strongly agree". Points were given in ascending order which one point given to "strongly disagree: and four point given to "strongly agree" for seven positive items. Reverse scoring applied to 3 negatively structured items. The total scores were added and higher scores indicated more positive attitude towards frailty syndrome prevention. The possible score range for attitude section is 10 to 40.

3.6.4 Development of practice in KAP

Items include in practice is section is about daily practices in prevent frailty syndrome focusing on exercise and nutrition, based on the intervention module implemented. A total of 10 items were developed in this section. Each item was developed in frequency scale. Choices of response given are "never", "sometimes", "frequent" and "very frequent". One point was given to the lowest frequency and four point was given to highest frequency. Points are summed and higher score in this section indicate a healthier lifestyle in prevention of frailty syndrome. Hence the possible total scores for practice section is 10 to 40.

3.7 Study Approval

Ethical approval was obtained from the Ethics Committee for Research Involving Human Subjects Universiti Putra Malaysia and Dewan Bandaraya Kuala Lumpur prior to data collection.

3.8 Data collection

Data collection was conducted within January to February 2019. Prior to data collection, approval for the study protocol were obtained from UPM's Ethics Committee for Research Involving Human Subjects, JKEUPM and Dean of Faculties involved in this study. Data collection was start once the approval have been gained.

3.9 Data analysis

All the data was be analyzed using IBM SPSS Version 22. Descriptive statistics were reported. KR-20 and Cronbach's Alpha were analyzed for internal consistency reliability where $\alpha \geq 0.7$.

CHAPTER 4

RESULTS & DISCUSSION

4.1 Phase 1: Content validity

Reviewers were comprise of four professional experts which are dietitians and nutritionists. Two experts have a background in Dietetics and another two experts have a background in Nutrition. The first and second reviewer has 15 and 12-year experience in Dietetics field while the third and fourth reviewer have nine and 10-year experience in Nutritional Science. Of the 10 items developed in the knowledge section, the CVI of the knowledge items was 0.9 which met the recommended cut-off point of 0.90 (Polit et al., 2007). Of 9 items in the attitudes section, the CVI of attitude items was 0.7. Of the 10 items in the practice section, the CVI of the practice section item was 0.9 which also met the recommended cut-off point of 0.90.

Table 4.1. Content validity testing knowledge, attitude and practice items in the questionnaire

Section	No of items	
Knowledge	10	0.9
Attitude	9	0.7
Practice	10	0.9

This current study has the same finding with the previous study. A study done by Zaini et al. (2017), shows a similar result the with current study which the CVI for knowledge and practice section exceed the recommended cut off point which is 0.9. For the attitude section which did not meet the recommended cut of point (CVI=0.7), the finding was similar with previous study by Hiew et al. (2015) that shows the knowledge section did not meet the recommended cut off point. A good content validity (CVI=0.9) also obtained in a study by Jiang et al., (2017) that reflects a good content validity of KAP.

For the qualitative assessment, half of the reviewers stated some the words used in the questionnaire were too technical and maybe cannot be understand by the elderly such as "intensti". One of the reviewers also comment on the type of answers which use negative and positive type of answer and may directly give the answer to the participants right away. (Table 4.2)

4.2: Qualitative assessment of content validity

Description	Action taken
Some questions use negative and positive type of answers and may directly give the answer to the questions.	The questions were revised to enhance clarity.
Some words are too technical and inappropriate.	Improved on wordings.

According to Zaini et al. (2017), the low CVI may affected by the qualitative assessment. This is because the comments generated by the experts may influence the CVI score.

4.2 Phase 2: Face validity

After content validity, the revised version of KAP was used to determine the face validity. Face validity was held in PPR Kerinchi and was answered by 20 elderly. Time spent to complete this KAP was approximately thirty minutes to one hour. Few respondents complained the questionnaire took longer time to answer since they are elderly and easily felt tired to answer the questions. Few respondents also could not understood Malay language hence few translator is needed to translate the questions. From the face validation, respondents commented that some of the items in the KAP cannot be understand because of the words used is too technical. For examples, "intensiti" and "sindrom". Similar finding was found in previous study. Few terms cannot be fully understood by respondents such as "aktiviti berintensiti rendah, sederhana dan tinggi" (Hiew et al. 2015). A previous study by Centres et al. (2013) states that a lengthy question may cause the respondents to feel boring while answering the questions.

4.3 Phase 3: Internal Consistency Reliability

4.3.1 Socio-demographic

The distribution of respondents by socio-demographic background was described in Table 4.3. The total number of respondents after calculated were 110 but we managed to obtain 160 respondents. The response rate was 100% and the highest percentage of respondents were from PPR Sri Alam (21.3%) and least respondents were from PPR Intan Baiduri which is 13.1%. Respondents were consisted of 59.4% female and 40.6% male

with an average age of 67 years (*SD*=5.90 years) ranging from 60 to 90 years old. Majority of the respondents were Malay (66.3%), married (53.8%) and have education level until primary school lower form (36.9%). Most of the respondents received household income range from RM500-RM1499 (50.6%).

Table 4.3: Socio-demographic background of the respondents

Characteristics	Mean ± SD	n(%)
Location		
PPR Intan Baiduri		21(13.1)
PPR Sg Bonus		24(15.0)
PPR Sri Alam		34(21.3)
PPR Seri Semarak		28(18.2)
PPR Pekan Batu		22(13.8)
PPR Kg Baru Air Panas		30(18.8)
Sex		
Male		65(40.6)
Female		95(59.4)
Age	67 ± 5.90	
51-60		13(8.1)
61-70		105(65.6)
71-80		37(23.1)
81-90		5(3.1)
Ethnicity		
Malay		108(66.3)
Chinese		17(10.6)
Indian		34(21.3)
Others		3(1.9)
Marital status		
Single		7(4.4)
Married		86(53.8)

Table 4.3: Socio-demographic background of the respondents (Cont.)

Characteristics	Mean ± SD	n(%)
Divorced		5(3.1)
Widow		62(38.8)
Education level		
No formal education		19(11.9)
Religious school		9(5.6)
Primary school (lower form)		59(36.9)
Secondary school (lower form)		37(23.1)
Secondary school (upper form)		28(17.5)
Diploma/Degree/Master/PhD		8(5.0)
Household income		
<RM500		51(32.7)
RM500-1499		79(50.6)
>RM1500		26(16.7)

4.3.2 Knowledge section

Cronbach's alpha was the main outcome of this finding. Cronbach's alpha for knowledge section is 0.528. The Cronbach's alpha is would be increase from 0.528 to 0.543, 0.539 and 0.538 if all the items below were deleted:

1*) Antara berikut, faktor yang manakah boleh meningkatkan risiko mendapat sindrom keuzuran*

2) *Antara yang berikut, makanan yang manakah yang tinggi kandungan kalsium*

3) *Berdasarkan piramid makanan, kumpulan makanan yang tinggi dengan vitamin dan garam mineral adalah*

The mean inter-item correlation also will increase from **0.2** to **0.3** if three items were deleted. The acceptable range of mean inter item correlation is >0.3 (Cristobal et al. 2007).

Table 4.4: Corrected item total correlation & Cronbach's Alpha value if items were deleted from the 10-item index in knowledge section

Items	Corrected-item total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
1. *Sindrom keuzuran mempunyai beberapa peringkat iaitu*	0.284	0.486	0.528
2. *Antara berikut, yang manakah yang merupakan ciri-ciri sindrom pra-uzur dan uzur?*	0.312	0.474	
3. *Antara berikut, faktor yang manakah boleh meningkatkan risiko mendapat sindrom keuzuran?*	0.050	**0.543**	
4. *Kesan-kesan sindrom keuzuran adalah seperti berikut kecuali*	0.259	0.494	
5. *Aktiviti seperti aerobik, berjalan, berjoging, berenang dan mengayuh basikal merupakan contoh untuk jenis senaman*	0.218	0.506	
6. *Apakah faedah aktiviti fizikal bagi warga emas?*	0.373	0.455	
7. *Intensiti senaman yang rendah boleh ditentukan melalui*	0.281	0.484	
8. *Antara yang berikut, yang manakah akibat kepada masalah penyusutan berat badan bagi warga emas?*	0.284	0.483	
9. *Antara yang berikut, makanan yang manakah yang tinggi kandungan kalsium?*	0.105	**0.539**	

Table 4.4: Corrected item total correlation & Cronbach's Alpha value if items were deleted from the 10-item index in knowledge section (Cont.)

Items	Corrected-item total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
10. *Berdasarkan piramid makanan, kumpulan makanan yang tinggi dengan vitamin dan garam mineral adalah*	0.060	**0.538**	

4.3.3 Attitude section

The Cronbach's alpha value for attitude section is 0.574. Coefficient Cronbach's alpha would increase from **0.574** to **0.584** if all items below were deleted:

1) *saya rasa melakukan aktiviti fizikal dan amalkan pemakanan yang sihat dapat mencegah sindrom keuzuran*

The mean inter-item correlation also will increase from 0.2 to 0.3 if one item was deleted.

Table 4.5: Corrected item total correlation & Cronbach's Alpha value if items were deleted from the 10-item index in attitude section

Items	Corrected-item total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
1. *saya rasa penting untuk memahami apa itu sindrom keuzuran*	0.182	0.565	0.574
2. *saya rasa saya boleh mengenal pasti akan tanda-tanda sindrom keuzuran*	0.341	0.526	
3. *saya rasa adalah penting untuk cuba mengelak daripada mempunyai faktor risiko sindrom keuzuran*	0.318	0.531	
4. *saya rasa melakukan aktiviti fizikal dan amalkan*	0.139	**0.584**	

Table 4.4: Corrected item total correlation & Cronbach's Alpha value if items were deleted from the 10-item index in knowledge section (Cont.)

Items	Corrected-item total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
5. *saya selalu melakukan aktiviti pemanasan dan penyejukan badan, sebelum dan selepas bersenam*	0.231	0.556	
6. *saya rasa saya perlu melakukan senaman sekurang-kurangnya 30 minit sehari, dan 5 kali seminggu*	0.194	0.565	
7. *saya rasa tidak perlu mengamalkan kaedah suku suku separuh pada setiap kali makan*	0.266	0.547	
8. *saya rasa tiada masalah jika kita makan tanpa mengira waktu dan pada bila bila masa*	0.394	0.506	
9. *semasa memilih makanan, saya lebih cenderung mengutamakan selera dan nafsu makan*	0.367	0.515	

4.3.4 Practice section

Cronbach alpha's coefficient for practice section is 0.383. The Cronbach's alpha will increase from **0.383** to **0.570** if all items below were deleted:

1) *Adakah anda cuba mencegah sindrom keuzuran*

2) *Adakah anda mengambil susu atau produk tenusu seperti keju atau yogurt sekurang-kurangnya satu hidangan)*

The mean inter-item correlation also will increase from **0.2** to **0.3** if one item was deleted.

Table 4.6: Corrected item total correlation & Cronbach's Alpha value if items were deleted from the 10-item index in practice section

Items	Corrected-item total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
1. *adakah anda cuba mencegah sindrom keuzuran?*	0.055	**0.384**	0.383
2. *adakah anda melakukan senaman aerobik dan daya ketahanan seperti berjogging dan bermain badminton?*	0.373	0.297	
3. *adakah anda melakukan senaman kekuatan seperti mengangkat berat dan push up?*	0.465	0.280	
4. *adakah anda melakukan senaman fleksibilti seperti senaman regangan?*	0.452	0.305	
5. *adakah anda melakukan senaman keseimbangan seperti berdiri dengan sebelah kaki atau melakukan tai chi?*	0.431	0.288	
6. *adakah makanan yang anda ambil seimbang dan lengkap iaitu terdiri daripada sumber kabohidrat, protein, lemak dan serat?*	0.093	0.382	
7. *adakah anda mengambil snek di antara waktu makan utama sebagai pengalas perut?*	0.186	0.340	
8. *adakah anda kerap mengambil makanan segera seperti hot dog, burger, pizza, ayam goreng dan sebagainya?*	0.143	0.364	
9. *adakah anda mengambil susu atau produk tenusu seperti keju atau yogurt sekurang-kurangnya satu hidangan?*	-0.144	**0.564**	
10. *adakah anda minum air kosong, 6-8 gelas sehari?*	0.174	0.356	

Recent study shows low coefficient Cronbach's alpha for the internal consistency reliability. Low coefficient Cronbach's alpha may also cause by the basis development of the KAP. Development of KAP need to be guide from the beginning so that it reflects the module. This also include all phases which are content validity, face validity and internal consistency reliability. According to Zaini et al. (2017), content validity indicate how well an item represent the concept under investigation. Content validity consist of two stage which are namely development and also judgment quantification. The KAP in this recent study may not well developed maybe because of the development of KAP itself. The developer of the KAP need to have some guidance on how to develop KAP hence it will reflect the module. Other than that, at least five experts are recommended in order to assess content validity (Zamanzadeh et al., 2015).

CHAPTER 5

CONCLUSION, LIMITATION AND RECOMMENDATION

5.1 Conclusion

This study found the KAP is useful to assess the effectiveness of intervention. However, the KAP need to be further revised hence the KAP is valid and reliable for assessing the frailty syndrome among elderly in Malaysia. Further validation is suggested in order to determine the validity and reliability of the KAP. This is because there was no previous KAP that had been develop to assess the effectiveness of intervention to prevent frailty syndrome in Malaysia.

5.2 Limitation

There are some limitations on this study that may affect the accuracy of the result. First, the developer of the KAP maybe don't have guidance in order to develop the hence the KAP not really reflect the module. Other than that, this study only focus in PPR thus the result cannot be generalized for another population plus the KAP is in Bahasa Melayu

hence it only suitable for Malaysian. The words use in this KAP also cannot be fully understood by the elderly. This study also found that lengthy question will cause the respondents to feel tired while answering the questionnaire. Lastly, the expert revision were recommended to perform twice instead of once.

5.3 Recommendation

There are some recommendation that could be suggested in order to improve the study. First, the development of KAP need to be further revised and the developer need to have some guidance in order to develop the KAP hence it will reflect the module. Other than that, further study is recommended to conduct this study in other places besides PPR so that the finding can be generalized. The KAP also need to have some improvement on wordings and lengthiness so that it can be fully understood by elderly. Lastly, further validation such as criterion and construct validity were recommended in order to improve the validity and reliability of this study.

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APPENDICES

SENARAI PA/PPR DI DBKL

ZON 1	KAWASAN	BILANGAN BLOK
Pengurus Zon : Encik Mohd Syawal bin Yatim **Alamat Zon :** Kompleks Belia Bandaraya Jalan Cheras, Kuala Lumpur **No Telefon** : 03-9200 2261	1. Seri Sabah 3A	4
	2. Seri Sabah 3B	5
	3. Seri Pulau Pinang	16
	4. Taman Ikan Emas	10
	5. Seri Johor 4A/B	10/6
	6. Seri Johor 4C	11
	7. Seri Melaka	14
	8. Seri Kota	6
	9. Seri Labuan	8
	10. PPR Taman Mulia	2
	11. PPR Desa Tun Razak	4
	12. PPR Pudu Ulu	3
	13. PPR Laksamana	4
	14. PPR Perkasa	3
	15. PPR Seri Malaysia	2
	16. PPR Raya Permai	4
	17. PPR Desa Petaling	2
ZON 2	**KAWASAN**	**BILANGAN BLOK**
Pengurus Zon : Encik Shahrin bin Sulaiman **Alamat Zon :** Blok 2 PPR Seri Alam Jalan Sungai Besi 57100 Kuala Lumpur **No Telefon** : 03-92238137	1. Seri Sarawak	3
	2. Loke Yew	5
	3. Jalan Hang Tuah	2
	4. PPR Kg Limau	2
	5. Seri Pahang	5
	6. Seri Selangor	6
	7. PPR Pantai Ria	2
	8. Bukit Kerinchi 1A	1
	9. Putra Ria	3
	10. PPR Seri Pantai	2
	11. PPR Salak Selatan	2
	12. PPR Kerinchi	6
	13. PPR Kg Muhibbah	9
	14. PPR Seri Anggerik	1
	15. PPR Seri Cempaka	2
	16. PPR Seri Alam	12
	17. PPR Bukit Jalil	11

ZON 3	KAWASAN	BILANGAN BLOK
Pengurus Zon : Puan Saadiah binti Hashim **Alamat Zon :** Blok 39 P.A Seri Perak Bandar Baru Sentul, Kuala Lumpur **No Telefon** : 03-40420340	1. Seri Perak	7
	2. Seri Terengganu/Fasa 3	1
	3. Seri Kelantan/Seri Pangkor	3/2
	4. Seri N. Sembilan/Sentul Fasa 8&9	8
	5. Sentul Utara	2
	6. PPR Beringin	6
	7. PPR Wahyu	3
	8. PPR Intan Baiduri	6
	9. PPR Kepong	3
	10. PPR Pekan Batu	2
	11. PPR Batu Muda	7
ZON 4	**KAWASAN**	**BILANGAN BLOK**
Pengurus Zon : Encik Mohamad Suwairi bin Deraman **Alamat Zon :** Persiaran Rejang, Setapak Jaya, 53300 Setapak K.L **No Telefon** : 03-41435058	1. Seri Kedah	5
	2. Seri Tioman	3
	3. Seri Perlis 1/2	3
	4. PPR Gombak Setia	2
	5. Setapak Jaya 1A	10
	6. PPR Jelatek	2
	7. PPR Sg Bonus	2
	8. Desa Rejang	12
	9. PPR Seri Semarak	5
	10. PPR Hiliran Ampang	3
	11. PPR Kg Baru Air Panas	8
	12. PPR Wangsa Sari	1
	13. Gombak Fasa 2	5
	14. Seri Langkawi	12

Rujukan Kami : (cc)DBKL/JPPPK/UP/2/12

KEBENARAN MENJALANKAN PENYELIDIKAN DAN MENDAPATKAN MAKLUMAT BERKAITAN FLAT PROGRAM PERUMAHAN RAKYAT (PPR) DI KUALA LUMPUR

s.k

Pengarah
Jabatan Pembangunan Komuniti
dan Kesejahteraan Bandar

Timbalan Pengarah Kanan
Jabatan Pembangunan Komuniti
dan Kesejahteraan Bandar
(u/p : Encik Mohd Yunus bin Haji Jalaludin)

Timbalan Pengarah Kanan
Jabatan Pembangunan Komuniti
dan Kesejahteraan Bandar
(u/p : Encik Nasri bin Ahmad)

Timbalan Pengarah
Bahagian Perumahan dan Zon

Timbalan Pengarah
Bahagian Pentadbiran dan Pembangunan

Timbalan Pengarah
Bahagian Pendidikan dan Komuniti

Timbalan Pengarah
Bahagian Kewangan dan Akaun

Penolong Pengarah
Unit Pengurusan Zon

} Untuk makluman tuan/puan

Pengurus Perumahan Zon 1

Pengurus Perumahan Zon 2

Pengurus Perumahan Zon 3

Pengurus Perumahan Zon 4

} Mohon pihak tuan/puan memberi kerjasama kepada pelajar

BAHAGIAN N: PENGETAHUAN

Arahan: **Tandakan** (√) pada jawapan yang paling sesuai bagi setiap kenyataan yang berikut (pilih satu jawapan sahaja).

1. Sindrom keuzuran mempunyai beberapa peringkat iaitu:

- ☐ Uzur → Pra-uzur → Tidak uzur
- ☐ Pra-uzur → Tidak uzur → Uzur
- ☐ Tidak uzur → Pra-uzur → Uzur
- ☐ Uzur → Tidak uzur → Pra-uzur

2. Antara berikut, yang manakah yang merupakan ciri-ciri sindrom pra-uzur dan uzur?

- ☐ Kehilangan / penyusutan berat badan
- ☐ Mampu berjalan pantas
- ☐ Sentiasa bertenaga
- ☐ Mampu melakukan aktiviti fizikal yang berintensiti tinggi

3. Antara berikut, faktor yang manakah boleh meningkatkan risiko mendapat sindrom keuzuran?

- ☐ Status sosio – ekonomi yang tinggi
- ☐ Berkahwin
- ☐ Golongan lelaki
- ☐ Memiliki penyakit kronik

4. Kesan – kesan sindrom keuzuran adalah seperti berikut KECUALI

- ☐ Meningkatkan risiko kematian
- ☐ Kemurungan
- ☐ Risiko kemasukan hospital meningkat
- ☐ Pengurangan kos pengurusan kesihatan

5. Aktiviti seperti aerobik, berjalan, berjogging, berenang dan mengayuh basikal merupakan contoh untuk jenis senaman _____

- ☐ Fleksibiliti
- ☐ Aerobik dan daya ketahanan
- ☐ Keseimbangan
- ☐ Kekuatan dan rintangan

6. Apakah faedah aktiviti fizikal bagi warga emas?

- ☐ Meningkatkan risiko masalah obesiti
- ☐ Mengurangkan keupayaan menguruskan diri
- ☐ Mencegah sindrom keuzuran
- ☐ Tiada faedah

7. Intensiti senaman yang RENDAH boleh ditentukan melalui ujian percakapan sekiranya individu

- ☐ Tidak boleh berbual dengan lancar
- ☐ Masih boleh bercakap tetapi dengan sedikit cungap
- ☐ Tidak boleh bercakap dan rasa ingin muntah
- ☐ Boleh berbual dan ketawa semasa bersenam

8. Antara yang berikut, yang manakah akibat kepada masalah penyusutan berat badan bagi warga emas?

- ☐ Sistem imuniti semakin lemah
- ☐ Risiko kematian berkurang
- ☐ Sukar dijangkiti penyakit
- ☐ Tidak mudah terjatuh dan dan kurang risiko

9. Antara yang berikut, makanan yang manakah yang tinggi kandungan kalsium?

- ☐ Nasi
- ☐ Susu
- ☐ Ikan
- ☐ Sayuran hijau

10. Berdasarkan piramid makanan, kumpulan makanan yang tinggi dengan vitamin dan garam mineral adalah

- ☐ Kumpulan sayur – sayuran dan buah – buahan
- ☐ Kumpulan nasi & produk bijiran
- ☐ Kumpulan ikan, ayam, daging, telur & kekacang
- ☐ Kumpulan susu & hasil tenusu

Sikap

Arahan: Sila tandakan (√) pada jawapan yang paling sesuai bagi setiap kenyataan yang berikut (pilih satu jawapan sahaja)

bill.	Kenyataan	Sangat tidak setuju	Tidak setuju	Kadang kala setuju/kadang kala tidak setuju	Setuju	Sangat setuju
1.	Saya rasa penting untuk memahami apa itu sindrom keuzuran	☐	☐	☐	☐	☐
2.	Saya rasa saya boleh mengenal pasti akan tanda – tanda sindrom keuzuran	☐	☐	☐	☐	☐
3.	Saya rasa adalah penting untuk cuba mengelak daripada mempunyai faktor risiko sindrom keuzuran	☐	☐	☐	☐	☐
4.	Saya rasa melakukan aktiviti fizikal dan amalkan pemakanan yang sihat dapat mencegah sindrom keuzuran	☐	☐	☐	☐	☐

5.	Saya selalu melakukan aktiviti pemanasan dan penyejukan badan, sebelum dan selepas bersenam	☐	☐	☐	☐	☐
6.	Saya rasa saya perlu melakukan senaman sekurang – kurangnya 30 minit sehari, dan 5 kali seminggu.	☐	☐	☐	☐	☐
7.	Saya rasa tidak perlu mengamalkan kaedah Suku Suku Separuh pada setiap kali makan.	☐	☐	☐	☐	☐
8.	Saya rasa tiada masalah jika kita makan tanpa mengira waktu dan pada bila bila masa	☐	☐	☐	☐	☐
9.	Semasa memilih makan, saya lebih cenderung mengutamakan selera dan nafsu makan	☐	☐	☐	☐	☐

Amalan

Arhan: tandakan (√) pada jawapan yang paling sesuai bagi setiap kenyataan berikut (pilih satu jawapan sahaja)

bill.	Kenyataan	Tidak pernah	Jarang (sehari/seminggu)	Kadang – kadang (1-2 hari/seminggu)	Kerap (3-4 hari/seminggu)	Selalu (5-7 hari/seminggu)
1.	Adakah anda cuba mencegah sindrom keuzuran?	☐	☐	☐	☐	☐
2.	Adakah anda melakukan senaman aerobik dan daya ketahanan seperti berjogging dan bermain badminton?	☐	☐	☐	☐	☐
3.	Adakah anda melakukan senaman kekuatan seperti mengangkat berat dan *push up*?	☐	☐	☐	☐	☐
4.	Adakah anda melakukan senaman fleksibiliti seperti senaman regangan?	☐	☐	☐	☐	☐

5.	Adakah anda melakukan senaman keseimbangan seperti berdiri dengan sebelah kaki atau melakukan tai chi?	☐	☐	☐	☐	☐
6.	Adakah makanan yang anda ambil seimbang dan lengkap iaitu terdiri daripada sumber karbohidrat, protein, lemak dan serat?	☐	☐	☐	☐	☐
7.	Adakah anda mengambil snek di antara waktu makan utama sebagai pengalas perut?	☐	☐	☐	☐	☐
8.	Adakah anda kerap mengambil makanan segera seperti *hot dog, burger, pizza*, ayam goreng dan sebagainya?	☐	☐	☐	☐	☐
9.	Adakah anda mengambil susu atau produk tenusu seperti keju atau yogurt) sekurang – kurangnya satu hidangan?	☐	☐	☐	☐	☐
10.	Adakah anda minum air kosong, 6-8 gelas sehari?	☐	☐	☐	☐	☐

***Diadaptasi daripada kempen cara hidup sihat, 2004**

BAHAGIAN N: PENGETAHUAN

Arahan: **Tandakan (√)** pada jawapan yang paling sesuai bagi setiap kenyataan yang berikut (pilih satu jawapan sahaja).

1. Sindrom keuzuran mempunyai beberapa peringkat iaitu:

- ☐ Uzur → Pra-uzur → Tidak uzur
- ☐ Pra-uzur → Tidak uzur → Uzur
- ☐ Tidak uzur → Pra-uzur → Uzur
- ☐ Uzur → Tidak uzur → Pra-uzur

2. Antara berikut, yang manakah yang merupakan ciri-ciri sindrom pra-uzur dan uzur?

- ☐ Kehilangan / penyusutan berat badan
- ☐ Mampu berjalan pantas
- ☐ Sentiasa bertenaga
- ☐ Mampu melakukan aktiviti fizikal yang berintensiti tinggi

3. Antara berikut, faktor yang manakah boleh meningkatkan risiko mendapat sindrom keuzuran?

- ☐ Status sosio – ekonomi yang tinggi
- ☐ Berkahwin
- ☐ Golongan lelaki
- ☐ Memiliki penyakit kronik

4. Kesan – kesan sindrom keuzuran adalah seperti berikut KECUALI

- ☐ Meningkatkan risiko kematian
- ☐ Kemurungan
- ☐ Risiko kemasukan hospital meningkat
- ☐ Pengurangan kos pengurusan kesihatan

5. Aktiviti seperti aerobik, berjalan, berjogging, berenang dan mengayuh basikal merupakan contoh untuk jenis senaman _____

- ☐ Fleksibiliti
- ☐ Aerobik dan daya ketahanan
- ☐ Keseimbangan
- ☐ Kekuatan dan rintangan

6. Apakah faedah aktiviti fizikal bagi warga emas?

- ☐ Meningkatkan risiko masalah obesiti
- ☐ Mengurangkan keupayaan menguruskan diri
- ☐ Mencegah sindrom keuzuran
- ☐ Tiada faedah

7. Intensiti senaman yang RENDAH boleh ditentukan melalui ujian percakapan sekiranya individu

- ☐ Tidak boleh berbual dengan lancar
- ☐ Masih boleh bercakap tetapi dengan sedikit cungap
- ☐ Tidak boleh bercakap dan rasa ingin muntah
- ☐ Boleh berbual dan ketawa semasa bersenam

8. Antara yang berikut, yang manakah akibat kepada masalah penyusutan berat badan bagi warga emas?

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- ☐ Risiko kematian berkurang
- ☐ Sukar dijangkiti penyakit
- ☐ Tidak mudah terjatuh dan dan kurang risiko

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10. Berdasarkan piramid makanan, kumpulan makanan yang tinggi dengan vitamin dan garam mineral adalah

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- ☐ Kumpulan nasi & produk bijiran
- ☐ Kumpulan ikan, ayam, daging, telur & kekacang
- ☐ Kumpulan susu & hasil tenusu

Sikap

Arahan: Sila tandakan (√) pada jawapan yang paling sesuai bagi setiap kenyataan yang berikut (pilih satu jawapan sahaja)

bill.	Kenyataan	Sangat tidak setuju	Tidak setuju	Kadang kala setuju/kadang kala tidak setuju	Setuju	Sangat setuju
1.	Saya rasa penting untuk memahami apa itu sindrom keuzuran	☐	☐	☐	☐	☐
2.	Saya rasa saya boleh mengenal pasti akan tanda – tanda sindrom keuzuran	☐	☐	☐	☐	☐
3.	Saya rasa adalah penting untuk cuba mengelak daripada mempunyai faktor risiko sindrom keuzuran	☐	☐	☐	☐	☐
4.	Saya rasa melakukan aktiviti fizikal dan amalkan pemakanan yang sihat dapat mencegah sindrom keuzuran	☐	☐	☐	☐	☐

5.	Saya selalu melakukan aktiviti pemanasan dan penyejukan badan, sebelum dan selepas bersenam	☐	☐	☐	☐	☐
6.	Saya rasa saya perlu melakukan senaman sekurang – kurangnya 30 minit sehari, dan 5 kali seminggu.	☐	☐	☐	☐	☐
7.	Saya rasa tidak perlu mengamalkan kaedah Suku Suku Separuh pada setiap kali makan.	☐	☐	☐	☐	☐
8.	Saya rasa tiada masalah jika kita makan tanpa mengira waktu dan pada bila bila masa	☐	☐	☐	☐	☐
9.	Semasa memilih makan, saya lebih cenderung mengutamakan selera dan nafsu makan	☐	☐	☐	☐	☐

Amalan

Arhan: **tandakan (√)** pada jawapan yang paling sesuai bagi setiap kenyataan berikut (pilih satu jawapan sahaja)

bill.	Kenyataan	Tidak pernah	Jarang (sehari/seminggu)	Kadang – kadang (1-2 hari/seminggu)	Kerap (3-4 hari/seminggu)	Selalu (5-7 hari/seminggu)
1.	Adakah anda cuba mencegah sindrom keuzuran?	☐	☐	☐	☐	☐
2.	Adakah anda melakukan senaman aerobik dan daya ketahanan seperti berjogging dan bermain badminton?	☐	☐	☐	☐	☐
3.	Adakah anda melakukan senaman kekuatan seperti mengangkat berat dan *push up*?	☐	☐	☐	☐	☐
4.	Adakah anda melakukan senaman fleksibiliti seperti senaman regangan?	☐	☐	☐	☐	☐

5.	Adakah anda melakukan senaman keseimbangan seperti berdiri dengan sebelah kaki atau melakukan tai chi?	☐	☐	☐	☐	☐
6.	Adakah makanan yang anda ambil seimbang dan lengkap iaitu terdiri daripada sumber karbohidrat, protein, lemak dan serat?	☐	☐	☐	☐	☐
7.	Adakah anda mengambil snek di antara waktu makan utama sebagai pengalas perut?	☐	☐	☐	☐	☐
8.	Adakah anda kerap mengambil makanan segera seperti *hot dog, burger, pizza*, ayam goreng dan sebagainya?	☐	☐	☐	☐	☐
9.	Adakah anda mengambil susu atau produk tenusu seperti keju atau yogurt) sekurang – kurangnya satu hidangan?	☐	☐	☐	☐	☐
10.	Adakah anda minum air kosong, 6-8 gelas sehari?	☐	☐	☐	☐	☐

*Diadaptasi daripada kempen cara hidup sihat, 2004