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Assessing Socio-Demographic Factors Affecting Fatigue Level among Community-Dwelling Older People

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ABSTRACT

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This study examines the link between fatigue level and socio-demographic profiles of community-dwelling older people attending the Elderly Activity Center. The influence of medical conditions (Type-2 diabetes, hypertension, heart disease, hyperlipidemia, and asthma) on fatigue levels were also explored. A cross-sectional study with purposive sampling was conducted on 180 community-dwelling older people aged 65 years and above in Selangor. Based on statistical analyses, it was found that Physical Fatigue has the highest fatigue level among community-dwelling older people. There was a significant difference between age and Reduced Motivation, education level and Reduced Activity, and the number of illnesses and General Fatigue. Type 2 diabetes mellitus added significantly with Mental Fatigue, and asthma was significant with all fatigue scales except Mental Fatigue. The study suggested that physical fatigue is the most prominent among older people compared to other fatigue dimensions and has some association with socio-demographic factors. Therefore, effective fatigue management considering all cohabiting factors should be encouraged in treating fatigue among community-dwelling older people.

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1. INTRODUCTION

Fatigue is a common complaint among older people and can be defined as exhaustion or a sense of weariness from physical work or mental stress (Yu et al., 2020). It refers to the symptoms of subjective discomfort and disruption of activity or performance characterised by lack of energy, muscle weakness, and slow movement. Fatigue is a pathological feature of many medical conditions, including heart disease, cancer, and depression, and it can also be a side effect of any treatment (Watt et al., 2000). As we grow older, the level of fatigue increases (Yu et al., 2020). Several studies have documented fatigue among older people (Yu et al., 2020; Barak et al., 2020). Soyuer and Senol (2011) opined that fatigue is a significant geriatric syndrome affecting family life, work performance, and social life. The perspective of fatigue could be different from one person to another. Fatigue could be due to physical, mental, emotional, or any combination of these. Older people may often have difficulty engaging in regular daily activities such as eating, bathing, dressing, serving, ambulating, continuing, or merely doing so to a lower level which depends on the level of fatigue (Bahgat et al., 2016; McPhee et al., 2016).

However, studies on fatigue among older people in the Malaysian population are still limited. Previous studies reported assessing fatigue levels among older people from Western countries (Yu et al., 2020; Watt et al., 2000). To add to this pool of knowledge, this study will report the findings on multiple dimensions of fatigue levels among older Malaysians. A previous study has found that fatigue has been proven to interfere with the functional status of older people (Jing et al., 2015) and its association with socio-demographic factors (Fritschi & Quinn, 2010; Mohamed Abd-Rabouh et al., 2017; Seo et al., 2015). Impairment of the functional status includes the dependency level in tasks related to activities of daily living (ADL) and instrumental activities of daily living (IADL).

As people get older, many diseases, such as diabetes mellitus, high blood pressure, cancers, and joint and back pains, may often lead to impairment in the human body's musculoskeletal system, which may interfere with older people's human system (Mugo, 2019). Torossian and Jacelon (2021) mentioned that a frequent situation among older people was fatigue becoming more severe and restricting when there is a gap between medical conditions. Thus, knowing how medical conditions have influenced fatigue levels may improve fatigue management in community-dwelling older people. Thus, this study analysed fatigue levels and associated demographic factors among community-dwelling older people. The influence of medical conditions (Type-2 diabetes, hypertension, heart disease, hyperlipidemia, and asthma) on fatigue levels were also explored.

2. LITERATURE REVIEW

The number of people over the age of 60 is expected to rise from 841 million in 2013 to over 2 billion in 2050 (Rashid et al., 2016). Malaysia's aging population is also growing at a comparable rate. In 1995, the senior population in Malaysia was only 5.8%, but by 2005, it had climbed to 7.0 %. Malaysia's older people population recently increased to 9.2 % in 2015, with a projected growth to 14.4 % by 2030 (Foong et al., 2016). The term "elderly" has traditionally been defined as someone who is 65 years old or older, with those 65 to 74 years old being referred to as "early elderly" and those above 75 years old being referred to as "late elderly" (Orimo et al., 2006).

Feeling fatigued may be the first sign that something is wrong with the human body. Fatigue is a commonly experienced situation by older people related to age factors, and often, the definition is misinterpreted (Sullivan, 2015). Many studies showed that fatigue increases with

age, although not all report this relationship (Murphy & Niemiec, 2014). According to Soyuer and Şenol (2011), fatigue is a significant geriatric syndrome that is recently defined for the older population and can negatively affect their family life, work performance, and social life.

Findings from previous studies reported that fatigued older people might present with a lower physical capacity (Trendall, 2001; Egerton et al., 2016), cognitive impairment (Li et al., 2020) and diminished social functioning (Egerton et al., 2016). Fatigue also leads to a lack of participation in daily occupation, which causes interference in performing daily tasks (Shorts et al., 2015). Older people with diabetes are reported to have fatigue and distressing complaints (Fritschi & Quinn, 2010). However, with a wide variety of conceptual understandings of fatigue definition and how it affects general wellness, there was little attention paid to fatigue management (Yu et al., 2020). Most studies described fatigue as multidimensional symptoms, lack of energy, simply tired (Lin et al., 2013; Romine et al., 2017), and persistently tired (Moreh et al., 2010). Therefore, in this study, the Multidimensional Fatigue Inventory (MFI-20) is used to measure fatigue following general fatigue, physical fatigue, reduced activity, mental fatigue, and reduced motivation.

General fatigue includes general statements about fatigue and decreased functioning and was designed to encompass physical and psychological aspects of fatigue. Physical fatigue concerns physical sensations related to fatigue. Mental fatigue pertains to cognitive functioning, including difficulty concentrating. Reduced activity is not doing useful activities that influence physical and psychological factors. Finally, reduced motivation relates to a lack of motivation to start any activity. All of these dimensions were identified from the interview with the respondents. Numerous research has revealed that woman experiences higher fatigue than males, but the fundamental causes of these discrepancies between gender are still unknown (Jing et al., 2015). Women may experience more stress than men because of their unique physiological nature and societal roles (Herrero et al., 2012), making them more prone to fatigue. Moreover, an association was found between higher education and physical activities (Romine et al., 2017). More information is needed on the association between fatigue with age, sex, and the use of common compensatory interventions for older people (Norberg et al., 2010).

The causes of fatigue are often observed in specific medical diseases (e.g., cancer, neurodegenerative disorders, rheumatologic disease, heart failure, stroke, and hormonal disorders) (Zengarini et al., 2015). The development of fatigue management interventions applicable to more than one chronic disease may result from understanding risk factors for fatigue that are common across multiple chronic diseases (Torossian & Jacelon, 2021). This will benefit a broader range of older people with various chronic diseases while making them aware of disease-specific triggers that call for tailored interventions.

3. METHODOLOGY

3.1 Study Design and Sampling

A cross-sectional study was employed among 180 community-dwelling older people. The participants were recruited using the purposive sampling method from seven Elderly Activity Centres in Selangor (Pusat Aktiviti Warga Emas (PAWE) Sungai Buloh, Jenjarom, Sabak Bernam, Kg. Kenanga, Kg. Sri Langkas Tambahan, Felda Bukit Cerakah, and Taman Sri Kantan, Kajang).

3.2 Inclusion and Exclusion Criteria

The participants were community-dwelling older people aged 65 years and above and literate with good command of the English language. Older people will be excluded from this study if they have a physical impairment and are dependent or need assistance in daily living or instrumental activities.

3.3 Research Instruments

3.3.1 Socio-demographic profile

A socio-demographic profile was used to identify participant characteristics. Participants were asked for information on their age (65 to 74, 75 to 84, or more than 85 years), gender (male, female), types of living (living with a family member, living alone), educational level (no education, primary education, secondary education, tertiary education), working status (workers, non-workers), number of medical illness (at least 1, at least 2, more than 2 illnesses).

3.3.2 Multidimensional Fatigue Inventory (MFI) – 20

The MFI-20 is a self-report, paper and pencil measuring instrument requiring between 5 to 10-minute to measure fatigue. It consists of five dimensions: General Fatigue, Physical Fatigue, Mental Fatigue, Reduced Motivation, and Reduced Activity. Each domain consists of four items Likert Scale with possible answers on a five-point (1 = "yes, that is true"; 5 = "no, that is not true"). The total score ranges from 4 to 20 on each subscale and 20 to 100 for the total fatigue score, with a higher score indicating higher fatigue levels. In an initial psychometric evaluation (Smets et al, 1995), developers reported an internal consistency ranging from 0.53 to 0.93. The scale was also sensitive to differences between the participant groups.

3.4 Data Collection Procedures

This study was approved by the UiTM Research Ethics Committee (REC/330/19), the Social Welfare Department (JKMM 100/12/5/2:2019/263), and each Elderly Activity Center in Selangor. Prior to data collection, the older people were screened based on inclusion and exclusion criteria. Next, the researcher obtained consent from the participants. Afterwards, participants were asked to fill up the socio-demographic profile and the MFI-20 to measure their fatigue levels. Instructions to fill up the forms were given following the test instructions. The assessment was carried out from May 2019 to July 2019 at seven Elderly Activity Centres in Selangor.

3.5 Sample Size

Raosoft Sample Size Calculator, an online software, calculates the sample size. The margin error used in this calculator is 5%, followed by a confidence level of 95% of the response distribution. Currently, there are 250 older people actively involved in the 7 PAWE centres in Selangor (Ali, Pegawai JKM-Personal communication, 30 Mac 2019). Therefore, the minimum sample size needed is 152. However, this study managed to get a sample of 180 participants.

3.6 Data Analysis

Statistical analysis was conducted using the Statistical Package for Social Sciences (SPSS) software for Windows 27.0. Descriptive analyses (i.e., mean, standard deviation (SD), frequency, and percentage) were performed to characterise the study sample's socio-

demographic variables and the various dimensions of fatigue. Means and SD were shown for continuous variables, while frequency and percentage were reported for categorical variables. In addition, a descriptive analysis for fatigue scores using the MFI-20 was also presented in the table for means and SD.

Group differences in fatigue scores across various socio-demographic variables were analysed by comparing the mean scores of each subscale; either using an independent t-test and one-way ANOVA for parametric analysis (normally distributed data) or Mann-Whitney U test and Kruskal Wallis test for nonparametric analysis (non-normal data), subjected to the normality of the data. The logistic regression analysis tested the associations between fatigue and medical conditions among older people. All analyses were considered statistically significant at a p-value of <0.05.

4. RESULTS

4.1 Socio-Demographic Characteristic

A hundred and eighty (180) older people were the participants in this study. The majority were between 65 to 74 years old (80.6%), and mainly amongst women (59.4%). There were about 89.4% of participants who are unemployed and had at least a secondary school education (39.4%), at least two types of illnesses (33.9%) and living with family members (88.9%). Table 1 shows the demographic characteristic of participants.

Table 1 Demographic Characteristic of Participants (N = 180)

Participants	Frequency (n = 180)	Percentage (%)
Age		
Age group: 65 to 74 years	145	80.6
Age group: 75 to 84 years	31	38.8
Age group: 85 and above	4	2.2
Men	73	40.6
Women	107	59.4
Living with a family member	160	88.9
Living alone	20	11.1
No education	28	15.6
Primary education	56	31.1
Secondary education	71	39.4
Tertiary education	25	13.9
Unemployed	161	89.4
Workers	19	10.6
At least 1 chronic condition	59	32.8
At least 2 chronic condition	61	33.9
More than 2 chronic conditions	60	33.3

4.2 Fatigue Level based on the MFI-20

The results of the fatigue score are presented in Table 2. By referring to the value of Mean and Standard Deviation, SD, it can be said that most participants rated higher scores in Physical Fatigue, mean ±SD (11.39±1.90). It was followed by Reduced Activity, mean ±SD (11.21±2.04), and Mental Fatigue, mean ±SD (10.34±2.28). Reduced Motivation, mean ±SD (9.88±2.46); and General Fatigue, mean ±SD (9.74±2.19). Refer to Table 2 for the fatigue score using the MFI-20.

Table 2 Score of Fatigue using the MFI-20

Type Fatigue Level	Mean	Standard Deviation
Total Fatigue Score	52.48	6.95
General Fatigue	9.74	2.19
Physical Fatigue	11.39	1.90
Reduced Activity	11.21	2.04
Reduced Motivation	9.88	2.46
Mental Fatigue	10.34	2.28

4.3 Differences in Fatigue between the Socio-Demographic Variables

The association between fatigue and socio-demographic characteristics, such as age, gender, working status, living with family members and various illnesses, for older people were identified. There is an association between Reduced Motivation and age ($p = 0.03$), and Reduced Activity and education level ($p = 0.03$), and General Fatigue and chronic conditions ($p = 0.04$). Table 3 shows the respondents' distribution of five fatigue scales and socio-demographics.

4.4 Logistic Regression

Binomial logistic regression was performed to ascertain the effects of medical conditions, including Type 2 Diabetes Mellitus, Hypertension, Heart Disease, Hyperlipidemia, and Asthma, on the likelihood that the person had fatigue. From the results, Type 2 Diabetes Mellitus added significantly with Mental Fatigue ($p = 0.05$), and Asthma was significantly with all fatigue scales; Total Fatigue ($p = 0.01$), General Fatigue ($p = 0.02$), Physical Fatigue ($p = 0.02$), Reduced Motivation ($p = 0.01$) and Reduced Action ($p = 0.04$) except Mental Fatigue. Refer to Table 4.

Table 3 The Distribution of Five Fatigue Scales and Socio-Demographics among the Respondents (N=180)

	Total Fatigue		**General Fatigue**		**Physical Fatigue**		**Mental Fatigue**		**Reduced Motivation**		**Reduced Activity**	
	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*	Mean (SD)	*p*
Age 65-74 (n=145)	52.82 (6.85)	0.42	9.82 (2.17)	0.59	11.45 (1.86)	0.44	10.29 (2.30)	0.60	10.02 (2.38)	0.03*	11.35 (1.98)	0.14
Age 75-84 (n=31)	51.10 (7.62)		9.42 (2.33)		11.29 (2.12)		10.68 (2.27)		8.97 (2.69)		10.65 (2.24)	
Age 85 and above (n=4)	51.00 (4.08)		9.25 (1.89)		10.25 (1.50)		9.75 (1.26)		11.75 (1.50)		10.25 (2.06)	
Men (n=73)	53.03 (6.93)	0.39	9.96 (2.16)	0.27	11.41 (1.71)	0.92	10.34 (2.24)	0.99	10.05 (2.28)	0.43	11.48 (1.98)	0.14
Women (n=107)	52.11 (6.97)		9.59 (2.20)		11.38 (2.03)		10.35 (2.31)		9.76 (2.57)		11.02 (2.07)	
Living with a family member (n=160)	52.79 (6.79)	0.56	9.94 (2.09)	0.67	11.34 (1.86)	0.56	10.42 (2.28)	0.70	9.98 (2.38)	0.22	11.23 (1.99)	0.51
Living alone (n=20)	50.05 (7.84)		8.15 (2.30)		11.85 (2.21)		9.75 (2.20)		9.10 (2.93)		11.00 (2.41)	
No education (n=28)	50.00 (6.23)	0.22	9.36 (2.23)	0.63	10.89 (1.71)	0.44	10.64 (2.30)	0.25	9.07 (2.36)	0.31	10.14 (2.09)	0.02*
Primary education (n=56)	52.61 (7.16)		9.63 (2.48)		11.57 (1.99)		9.96 (2.26)		9.98 (2.74)		11.45 (1.82)	
Secondary education (n=71)	53.20 (7.24)		9.87 (1.98)		11.38 (1.98)		10.66 (2.26)		10.06 (2.34)		11.30 (2.10)	
Tertiary education (n=25)	52.96 (6.08)		10.04 (2.05)		11.60 (1.68)		9.96 (1.95)		10.04 (2.17)		11.60 (2.00)	
Unemployed (n=161)	52.36 (6.97)	0.49	9.67 (2.20)	0.82	11.40 (1.95)	0.22	10.29 (2.19)	0.09	9.88 (2.43)	0.39	11.19 (2.05)	0.91
Workers (n=19)	53.53 (6.85)		10.32 (1.97)		11.37 (1.50)		10.79 (2.89)		9.89 (2.66)		11.32 (2.00)	
At least 1 chronic condition (n=59)	51.68 (6.70)	0.41	9.15 (2.36)	0.04*	11.34 (2.03)	0.83	10.02 (2.17)	0.32	10.02 (2.38)	0.42	11.34 (2.09)	0.81
At least 2 chronic conditions (n=61)	52.38 (7.06)		9.93 (1.92)		11.33 (1.84)		10.36 (2.03)		9.54 (2.51)		11.18 (2.06)	
More than 2 chronic conditions (n=60)	53.38 (7.08)		10.12 (2.17)		11.52 (1.86)		10.65 (2.59)		10.08 (2.48)		11.10 (1.99)	

*Statistically significant ($p<0.05$)

Table 4 Hierarchical Binary Logistic Regression Models for Medical Conditions (Type 2 Diabetes Mellitus, Hypertension, Heart Disease, Hyperlipidemia, and Asthma) and All Fatigue Scales

	Total Fatigue		**General Fatigue**		**Physical Fatigue**		**Mental Fatigue**		**Reduced Motivation**		**Reduced Activity**	
	Sig	Exp (B) with 95% CI	Sig	Exp (B) with 95% CI	Sig	Exp (B) with 95% CI	Sig	Exp (B) with 95% CI	Sig	Exp (B) with 95% CI	Sig	Exp (B) with 95% CI
Type 2 Diabetes Mellitus (Yes = 150, No = 30)	0.14	0.74 (0.49, 1.10)	0.18	1.30 (0.88, 2.00)	0.25	1.29 (0.84, 2.00)	0.05*	1.60 (1.00, 2.54)	0.15	1.36 (0.90, 2.06)	0.31	1.29 (0.79, 2.10)
Hypertension (Yes = 96, No = 84)	0.45	1.11 (0.86, 1.44)	0.52	0.92 (0.70, 1.20)	0.96	0.99 (0.74, 1.33)	0.40	0.88 (0.66, 1.17)	0.62	0.93 (0.70, 1.24)	0.46	0.88 (0.63, 1.23)
Heart Disease (Yes = 159, No = 21)	0.30	1.25 (0.82, 1.90)	0.92	0.98 (0.63, 1.51)	0.24	0.74 (0.45, 1.22)	0.98	1.00 (0.64, 1.59)	0.10	0.68 (0.43, 1.07)	0.42	0.80 (0.47, 1.37)
Hyperlipidemia (Yes = 59, No = 129)	0.85	0.97 (0.74, 1.28)	0.08	1.30 (0.97, 1.75)	0.90	0.98 (0.71, 1.35)	0.98	0.99 (0.74, 1.35)	0.65	1.07 (0.79, 1.46)	0.13	0.75 (0.52, 1.09)
Asthma (Yes = 11, No = 169)	0.01*	2.30 (1.25, 4.27)	0.02*	0.46 (0.24, 0.87)	0.02*	0.46 (0.23, 0.90)	0.07	0.54 (0.28, 1.05)	0.01*	0.44 (0.24, 0.81)	0.04*	0.45 (0.21, 0.97)

*Statistically significant ($p<0.05$)

5. DISCUSSION

The current study analysed the fatigue levels and their associated demographic factors among community-dwelling older people attending Elderly Activity Center (PAWE). The influence of medical conditions (Type-2 diabetes, hypertension, heart disease, hyperlipidemia, and asthma) on fatigue levels were also explored.

Consistent with our current findings, the previous study also has shown that community-dwelling older people have the highest Physical Fatigue score (Hardy & Studenski, 2010). The physical fatigue qualities common among older people were sleepiness, low energy, and weakness (Sullivan, 2015). By using the MFI-20, the older people have been asked questions including Question 2: *"Physically, I am able to do little"*, Question 8: *"Physically, I can take on a lot",* Question 14: *"Physically, I feel I am in bad condition"*, and Question 20: *"Physically, I feel I am in excellent condition"*. Most have been physically fatigued lately by reporting little activities and feeling lousy. A previous study reported an association between fatigue and physical activity and the level of older people (Egerton et al., 2016). It is encouraged that more senior people engage in activities that strengthen or stabilize muscles to prevent disabilities and disorders caused by loss of muscle mass which can lead to loss of muscle strength (Murphy & Niemiec, 2014).

The current study found a significant association between age and Reduced Motivation, as in the previous study (Phillips et al., 2004). According to Minhat and Mohd Amin (2011), community-dwelling older people engaged in leisure and recreational activities such as watching television and playing sports, followed by related cognitive activities, such as reading books, Quran, writing or drawing, social participation activities such as meeting or visiting friends or other family members and work-related activities such as cooking, gardening and making crafts. The older people were motivated to participate in physical activity if they perceived enjoyment, improved health, mood, and independence and reduced falls (de Groot & Fagerström, 2010). Lack of motivation was found to be one of the barriers to engagement in physical activities among older people, as well as reduced health status, unpleasant experiences, and environmental factors (Yarmohammadi et al., 2019). Therefore, clinicians and other health professionals should encourage older people to initiate and stay motivated to continue physical activities to maintain their body health and improve psychosocial well-being.

Other than that, our findings show a significant difference between Reduce Activity and the educational level of older people. Educated people have better occupational engagement at an older age than those with a low level of education (Shaw et al., 2007). This study supported the preliminary insight of the previous study, which reported the difference in physical activity between high and low-educational-level older people. Educated older people who worked commonly not associated with physical activity will seek many physical activities after leaving the workforce (Shaw et al., 2007). They further explained that it contrasts with low educated older people who rely on their physical afford, such as farmers, carpenters and fishermen, and tend to decline physical activity as they transition out of the workforce.

Moreover, this study also found an association between the number of illnesses and General Fatigue. The current study highlighted that combining more than two illnesses may influence fatigue among community-dwelling older people. Fritschi et al. (2012) explained that chronic fatigue is most associated with cancer, chronic obstructive pulmonary disease, rheumatoid arthritis, depression, fibromyalgia, and diabetes. The present illness may interfere with older people's activities of daily living performance and affect their quality of life.

In line with a former research finding, older people who suffer from Type 2 Diabetes Mellitus have significant Mental Fatigue (Fritschi & Quinn, 2010). The term "diabetes emotional distress" was used to represent the related work of managing and living with diabetes (Fritschi & Quinn, 2010). The regime of insulin therapy influenced physical symptoms, mood states, and general well-being, including fatigue. In diabetes patients, the reason for fatigue is an alteration of blood glucose levels and may result in acute and chronic hyperglycemic episodes, hypoglycemia or blood glucose fluctuations. Other than that, older people with asthma were significantly associated with all fatigue scales except Mental Fatigue. The current study suggested that older people with asthma generally have multiple fatigue dimensions. According to Pasha et al. (2017), compared to younger asthmatics, senior asthmatics have worse quality of life, higher rates of morbidity, worse overall health, signs of depression, and greater restrictions on daily activities.

6. CONCLUSION

In conclusion, the present study suggested that physical fatigue is the most prominent in older people among other fatigue dimensions. This study highlighted the relationship between socio-demographic factors and fatigue levels among older people. An increase in age was related to Reduced Motivation, a higher education level was related to Reduced Activity, and the more significant number of illnesses present was associated with General Fatigue. Chronic diseases such as Type 2 Diabetes Mellitus and Asthma potentially impact fatigue among older people. Therefore, effective fatigue management considering all cohabiting factors should be encouraged in treating fatigue among community-dwelling older people. The limitation of the present study is that no screening test was done to determine the cognitive level of the respondents. The respondents answered based on self-declaration. For future research, the symptoms of fatigue among Type 2 Diabetes Mellitus older people should be linked with physical performance or activity to get more significant findings in the study.

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AUTHOR CONTRIBUTION STATEMENT

NSB, SST, and MAA wrote the introduction and literature review sections. NFMR collected and refined the data. NFMR and NSB performed the data analysis using statistical analysis. NSB, AZCD, and HAA also wrote the data methodology and the discussion sections. All authors read and approved the final manuscript.

DECLARATION OF CONFLICTING INTERESTS

The authors declare that they have no conflict of interest.

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APPENDIX

Appendix 1. Survey Instrument: Multidimensional Fatigue Inventory (MFI) – 20

Responses	Items	Sources
Yes, that is true 1,2,3,4,5 No, that is not true	1. I feel fit	
Yes, that is true 1,2,3,4,5 No, that is not true	2. Physically, I feel only able to do little	
Yes, that is true 1,2,3,4,5 No, that is not true	3. I feel very active	
Yes, that is true 1,2,3,4,5 No, that is not true	4. I feel like doing all sorts of nice things	
Yes, that is true 1,2,3,4,5 No, that is not true	5. I feel tired.	
Yes, that is true 1,2,3,4,5 No, that is not true	6. I think I do a lot in a day.	
Yes, that is true 1,2,3,4,5 No, that is not true	7. When I am doing something. I can keep my thought on it.	
Yes, that is true 1,2,3,4,5 No, that is not true	8. Physically, I can take on a lot	
Yes, that is true 1,2,3,4,5 No, that is not true	9. I dread having to do things.	
Yes, that is true 1,2,3,4,5 No, that is not true	10. I think I do a little in a day.	Smets et al. (1995)
Yes, that is true 1,2,3,4,5 No, that is not true	11. I can concentrate well	
Yes, that is true 1,2,3,4,5 No, that is not true	12. I am rested	
Yes, that is true 1,2,3,4,5 No, that is not true	13. It takes a lot of effort to concentrate on things	
Yes, that is true 1,2,3,4,5 No, that is not true	14. Physically, I feel I am in bad condition	
Yes, that is true 1,2,3,4,5 No, that is not true	15. I have a lot of plans	
Yes, that is true 1,2,3,4,5 No, that is not true	16. I tired easily	
Yes, that is true 1,2,3,4,5 No, that is not true	17. I get little done	
Yes, that is true 1,2,3,4,5 No, that is not true	18. I don't feel like doing anything	
Yes, that is true 1,2,3,4,5 No, that is not true	19. My thoughts easily wander	
Yes, that is true 1,2,3,4,5 No, that is not true	20. Physically, I feel I am in excellent condition	

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