

MENTAL FATIGUE AMONG JAMAICAN: POST COVID-19

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Abstract. Mental fatigue is a psychobiological state resulting from prolonged, demanding cognitive work that causes a subjective sense of exhaustion, diminished cognitive function, and altered brain activation. Mental fatigue can develop after a limited amount of cognitive exertion and increase the possibility of mistakes. The objective study is to determine if COVID-19 affects mental fatigue in the elderly, fifty-five years and older in Jamaica. Researchers used stratified multi-stage probability sampling to collect data from respondents across the 14 parishes in Jamaica. Researchers collected the data from Lars Rönnbäck and Birgitta Johansson's Mental Fatigue Scale (MFS). The data collection occurred between October to November, 2022; from 1122 respondents. Researchers performed descriptive analyses on the collected data. Sixty per cent of the respondents (n=672) were classified as not experiencing mental fatigue at the time of this study (i.e., 3 in every 5 Jamaicans 55+ years old). However, 40% were classified as having different levels of mental fatigue (i.e., 2 in every 5 Jamaicans 55+ years old; 67.3% of those 85+ years old, 44.1% of those 75-84 years old, 38.4% of those 65-74 years old, and 34.4% of those 55-64 years old), with 10% having serious mental fatigue (i.e., 1 in every 10 Jamaicans 55+ years old). The findings revealed that more of the female-sampled respondents had a higher level of mental fatigue (43.9%, n=258) compared to the male (35.6%, n=188). Most elderly 55 years and older did not experience Mental Fatigue during the COVID-19 Pandemic in Jamaica.

Keywords: *COVID-19, elderly, Jamaica, mental fatigue, post COVID-19, social gerontology*

Introduction

Ageing is a phenomenon that spans decades and pertains to the natural progression of individuals through an expected lifespan. Gerontology is described by Encyclopedia Britannica as the scientific study of the phenomenon of ageing, which includes the gradual changes that occur in a cell, a tissue, an organ system, a whole organism, or a collection of organisms over time (Comfort, 2021). Mental fatigue is a psychobiological state brought on by prolonged, demanding cognitive work that causes a subjective sense of exhaustion, diminished cognitive function, and/or altered brain activation (Bourne and Eldermire-Shearer, 2018). Mental fatigue can develop after only a limited amount of cognitive exertion, raising the possibility of mistakes. The rise in the perception of exertion rating is the alteration brought on by mental fatigue that is most consistent (Mosler, 2015). The purpose of this study is to determine how COVID-19 affects mental fatigue in the elderly (fifty-five years and older) in Jamaica. The older adult

population can be divided into three life-stage subgroups: the young-old (approximately 65-74), the middle-old (ages 75-84), and the old-old (over age 85) (Little, 2016).

Serious sickness is more likely to strike older persons and those with underlying medical illnesses including cancer, diabetes, cardiovascular disease, or chronic respiratory diseases (WHO, 2022). The SARS-CoV-2 virus is an infectious disease known as coronavirus disease (COVID-19). The COVID-19 pandemic has drastically changed Jamaicans' lives, including the elderly population. Older adults tend to experience loneliness, age discrimination, and excessive worry. It is therefore reasonable to anticipate that they would experience greater negative outcomes related to the COVID-19 pandemic and are at risk for complications than younger adults (Lebrasseur et al., 2021). The COVID-19 pandemic restrictions imposed additional barriers to social networks for older adults. This population experienced rapid restrictions to in-person gatherings, travel, visitations in long-term care facilities and nursing homes, recreation, and entertainment. Spiritual institutions closed their doors, exercise facilities shut down, and family gatherings were cancelled (Webb and Chen 2022).

There was heightened awareness in the medical community of the risk of mental health issues in older adults due to their predisposition to social isolation and increased risk of severe illness from SARS-CoV-2. One survey from July 2020 showed that 46% of adults 65 years and older felt that their mental health was negatively influenced by coronavirus-related worries. This had increased from 31% of older adults 2 months earlier (Koma et al., 2020). A cross-sectional study was conducted in Istanbul, Turkey, between March and June 2020, where a total of 4,700 persons were approached and 3,672 (78%) participants (64.4% male and 35.6% females) completed the Knowledge Attitude Practices (KAP) and Fatigue Assessment Scale (FAS) questionnaires. This study revealed that 64.1% of participants were categorized as psychologically fatigued and 35.9% as normal (Morgul et al., 2021). The results showed that there may be an increase in mental fatigue among the elderly 55 years and older during the COVID-19 pandemic in Jamaica.

Theoretical framework

The term "compassion fatigue" was used by Figley (1995) to describe the "natural subsequent behaviours and feelings following news about a traumatic incident suffered by a significant other-the stress resulting from assisting, or trying to help, a traumatized or suffering person" (*Figure 1*). According to researchers, the phenomenon is related to the therapeutic interaction between the patient and healthcare practitioner in that the patient's traumatic or painful experience sets off a myriad of responses in the provider (Chachula, 2022). Emotional tiredness, a diminished feeling of personal achievement or significance at work, mental exhaustion, social isolation, and physical exhaustion are common characteristics of both burnout and compassion fatigue (Dehghani and asoumi, 2020). Jean Watson's notion of human caring is the theoretical framework that underpins the concept of compassion fatigue. According to Sitzman and Watson, taking care of oneself is crucial to providing appropriate care for others and fostering a healing atmosphere (Academic Support for Nursing Students, 2022). Based on research, the Compassion Fatigue theory is used to describe those who provide care such as teachers, nurses, and doctors. This research applies the part of the theory that looks into mental exhaustion, emotional tiredness, and physical exhaustion which connects back to the Mental Fatigue Scale and our research.

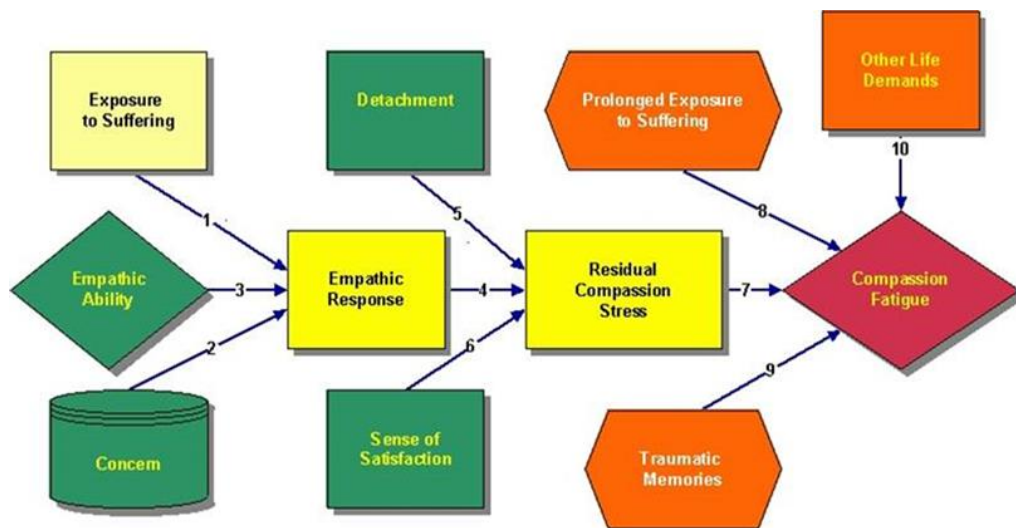


Figure 1. The compassion fatigue process.
Source: Figley (1995).

Materials and Methods

Researchers used a quantitative design to determine if COVID-19 affects mental fatigue in the elderly (fifty-five years and older) in Jamaica. Quantitative research generates statistics through the use of large-scale survey research, using methods such as questionnaires or structured interviews (Dawson, 2019). For the research, Jamaica's elderly population in 2018-2019 (i.e., 492,221 people 55+ years) determined the sample size. The probability sampling research method was used by utilizing a confidence interval of 95% and a margin of error of 2.924 per cent (Harvard Medical School, 2022) which calculated a sample size of 1121 (Charan and Biswas, 2013). Stratified multi-stage probability sampling was used to collect data from respondents across the 14 parishes in Jamaica: Manchester, Kingston & St. Andrew, Trelawny, Hanover, Westmorland, St. James, St. Ann, Hanover, St. Mary, Clarendon, St. Elizabeth, Portland, St. Thomas, and St Catherine. Data collection occurred between October 1, 2022, to December 1, 2022. A self-administered web-based survey was used to collect data from the respondents. The standardized instrument consists of 20 closed-ended questions and 1 open-ended question. The researchers obtained permission to use Johansson and Ronnback (2014) to assess the mental fatigue of the sampled respondents.

Johansson and Ronnback (2014) conducted a study and created the Mental Fatigue Scale (MFS) which is used to measure mental fatigue in persons. The MFS is accessible by downloading the mobile app. The MFS is a self-reported scale including 15 items of which 14 were used for this research. The items include fatigue, lack of initiative, mental fatigue, mental recovery, concentration difficulties, memory problems, slowness of thinking, sensitivity to stress, increased tendency to become emotional, irritability, sensitivity to light, sensitivity to noise, decreased sleep at night and increased sleep. The scale measures are: 0-normal, 0.5, 1-slight, 1.5, 2-fairly serious, 2.5, and 3-problems. A score of 0 corresponds to normal function and 1-3 indicates an increasing problem with mental fatigue. The study found a cut-off score of no mental fatigue is scored between 0-10, and above 10.5 signifies a problem. Participants were informed of the research

purpose, its confidentiality and anonymity with an invitation to Jamaican citizens 55 years or older to participate. To achieve the sample, target the survey was shared on multiple social media platforms (WhatsApp, Instagram, and Facebook). The researchers gathered a total of 1121 responses with 49 incomplete responses, 34 from persons ages 21-54 and 15 invalids in which persons placed their date of birth or placed a dot in place of their age. There were a total of 1072 successful responses from Jamaicans 55 and older. The data was retrieved and analyzed using the Statistical Package for Social Science (SPSS) database by IBM for Windows to evaluate and analyse the findings and determine the statistical significance. The data was analysed using frequencies, descriptive statistics, cross-tabulations, reliability and confirmatory factor analysis. A p-value of 5 per cent was used to determine the level of statistical significance.

One thousand, one hundred and twenty-one elderly Jamaicans (ages 55+ years) were used to assess the validity and reliability of the Mental Fatigue Scale (MFS). The 14 items scale had a reliability of 0.948, which is extremely good to assess mental fatigue among Jamaicans 55 years and older. The fourteen items' Likert-scale mental fatigue scale's (MFS) descriptive statistics lie between 0.51 and 0.75, with the inter-item correlation lying between 0.430 and 0.720 (of which 3 correlation coefficients were more than 0.69). The communalities value for the 14-item Likert scale construct lie between 0.556 and 0.760, with one value less than 0.6. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.963 and Bartlett's test was 10965.554 with a $P < 0.0001$ (Knight, 2021; Lebrasseur et al., 2021; Koma et al., 2020; Little, 2016; Marra et al., 2003). For the 14 items, the total variance explained was 67.128%, with two Eigenvalues being at least one. The Component Correlation Matrix value was 0.728. Hence, by way of the Principal Component Analysis (PCA), the 14 items are suitable and appropriate for measuring mental fatigue among those 55 years, and older in Jamaica. The MFS was computed by summing the 7-point Likert scale 14 items and higher scores indicate a greater level of mental fatigue among the sampled respondents. The scores were classified as no mental fatigue (i.e., scores from 0 - 10), slight mental fatigue (i.e., scores from 10.5 to 14.5), fairly serious mental fatigue (i.e., scores from 15-20), and serious mental fatigue (i.e., scores from 20.5 and beyond).

Table 1 presents the demographic characteristics of the sampled respondents (n=1120). The majority of the respondents were female (52.5%, n=588), between the ages group of Approaching Old (55-64 years) (46.4%, n= 520, and resided in Kingston and St. Andrew (24.1%, n=270). Most respondents were married (35.2%, n=395), and secondary education was the highest level of education completed (42.3%, n= 474).

Table 1. Sociodemographic characteristics.

| Category | Frequency [N] (Percentage, %) |
|-------------------------|-------------------------------|
| Age (years) | |
| Approaching old (55-64) | 520 (46.4) |
| Young old (65-74) | 334 (29.8) |
| Old-Old (75-84) | 166 (14.8) |
| Oldest old (85+) | 101 (9) |
| Gender | |
| Male | 528 (47.1) |
| Female | 588 (52.5) |
| Non-binary | 4 (0.4) |
| Area of residence | |
| Kingston/St. Andrew | 270 (24.1) |

| | |
|--------------------------------------|------------|
| St. Elizabeth | 60 (5.4) |
| Clarendon | 98 (8.7) |
| Manchester | 105 (9.4) |
| St. Catherine | 204 (18.2) |
| St. Thomas | 38 (3.4) |
| Hanover | 28 (2.5) |
| Westmoreland | 66 (5.9) |
| St. Mary | 43 (3.8) |
| Portland | 34 (3.0) |
| St. James | 75 (6.7) |
| Trelawny | 31 (2.8) |
| St. Ann | 68 (6.1) |
| <hr/> | |
| Highest level of education completed | |
| Tertiary | 371 (33.1) |
| Secondary | 474 (42.3) |
| Primary | 232 (20.7) |
| None | 43 (3.8) |
| <hr/> | |
| Marital status | |
| Single | 160 (14.3) |
| Married | 395 (35.2) |
| Widowed | 187 (16.7) |
| Divorced | 128 (11.4) |
| Common law union | 161 (14.4) |
| Separated | 89 (7.9) |
| <hr/> | |

Figure 2 shows a bar graph representing the percentage of each age group of sampled respondents (n=1120). Most of the respondents fall under the approaching old (55-64 years) age group (46.4%, n=520) and the least respondents are from the oldest old (85+ years) age group (9.0%, n=101). Of the sampled respondents (n=1121), 99.9% were used for assessing mental fatigue (n=1120). *Figure 2* depicts the categorization of the Mental Fatigue Scale (MFS) among Jamaicans 55+ years post-COVID-19. Sixty per cent of the respondents (n=672) were classified as not experiencing mental fatigue at the time of this study (i.e., 3 in every 5 Jamaicans 55+ years old). However, 40% were classified as having different levels of mental fatigue (i.e., 2 in every 5 Jamaicans 55+ years old), with 10% having serious mental fatigue (i.e., 1 in every 10 Jamaicans 55+ years old).

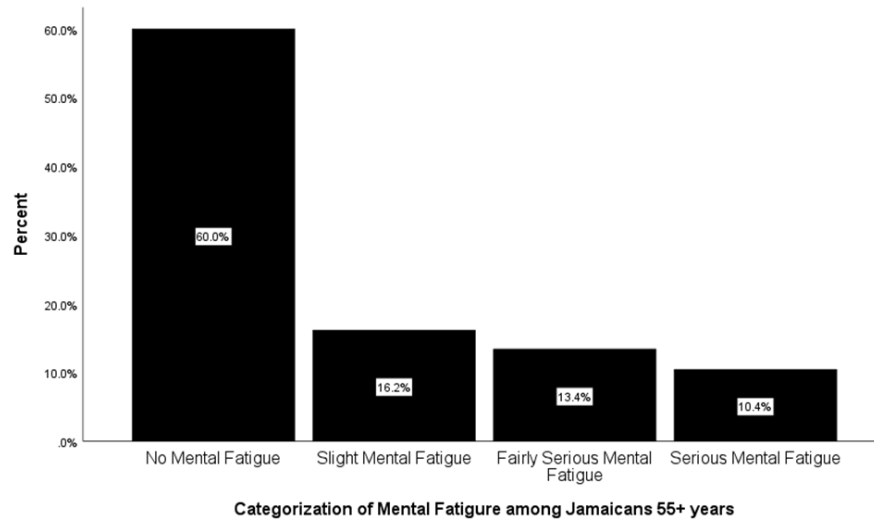


Figure 2. Mental fatigue scale (MFS) among Jamaicans 55+ years.

Table 2 presents a cross-tabulation between the Mental Fatigue Scale (MFS) and the gender of the sampled respondents. The findings revealed that more of the female-sampled respondents had a higher level of mental fatigue (43.9%, n=258) compared to the male (35.6%, n=188) and those who classify themselves as non-binary gender (50%, n=2), $\chi^2(df=6)=15.983$, $P=0.014$. Furthermore, 10.7% (n=63) of the female-sampled respondents were classified as having serious mental fatigue compared to 12.2% (n=54) of the male-sampled respondents, and none of those in the non-binary gender classification.

Table 2. A cross-tabulation between the mental fatigue scale and gender.

| Mental fatigue scale (MFS) | Gender | | | Total [N (%)] |
|-------------------------------|--------------|----------------|--------------------|------------------|
| | Male [N (%)] | Female [N (%)] | Non-binary [N (%)] | |
| No mental fatigue | 340 (64.4) | 330 (56.1) | 2 (50.0) | 672 (60.0) |
| Slight mental fatigue | 80 (15.2) | 101 (17.2) | 0 (0.0) | 181 (16.2) |
| Fairly serious mental fatigue | 54 (10.2) | 94 (16.0) | 2 (50.0) | 150 (13.4) |
| Serious mental fatigue | 54 (10.2) | 63 (10.7) | 0 (0.0) | 117 (10.4) |
| Total | 528 (100) | 588 (100) | 4 (100) | 1120 (100) |

Notes: N=Frequency; %=Percentage

Table 3 presents a cross-tabulation between the Mental Fatigue Scale (MFS) and the age cohort of the sampled respondents. The findings revealed that most of those in the oldest-old age cohort were classified with different levels of mental fatigue (67.3%, n=68) followed by those in the old-old age cohort (44.0%, n=73), those in the young-old age cohort (38.4%, n=128), and those approaching old age (34.4%, n=179), $\chi^2(df=9)=67.474$, $P<0.001$. Furthermore, 26.7% (n=27) of the oldest-old sampled respondents were classified as having serious mental fatigue compared to 15.7% (n=26) of those in the old-old age cohort, and so forth. Table 4 presents a cross-tabulation between the Mental Fatigue Scale (MFS) and the educational level of the sampled respondents. The findings revealed that most of those in primary-level education were classified with different levels of mental fatigue (55.6%, n=129) followed by those with secondary-level education (43.9%, n=208), $\chi^2(df=9)=65.339$, $P<0.001$. Furthermore, 16.8% (n=39) of those with primary-level education were classified as having serious mental fatigue compared to 14.0% (n=6) of those with no educational level, and so forth.

Table 3. A cross-tabulation between mental fatigue scale and age cohort.

| Mental fatigue scale (MFS) | Age cohort (years) | | | | Total [N (%)] |
|-------------------------------|---------------------------------------|---------------------------------|-------------------------------|--------------------------------|------------------|
| | Approaching old (55-64) [N (%)] | Young-old (65-74) [N (%)] | Old-old (75-84) [N (%)] | Oldest-old (85+) [N (%)] | |
| No mental fatigue | 341 (65.6) | 205 (61.6) | 93 (56.0) | 33 (32.7) | 672 (60.0) |
| Slight mental fatigue | 89 (17.1) | 53 (15.9) | 23 (13.9) | 16 (15.8) | 181 (16.2) |
| Fairly serious mental fatigue | 56 (10.8) | 45 (13.5) | 24 (14.5) | 25 (24.8) | 150 (13.4) |
| Serious mental fatigue | 34 (6.5) | 30 (9.0) | 26 (15.7) | 27 (26.7) | 117 (10.4) |
| Total | 520 (100) | 333 (100) | 166 (100) | 101 (100) | 1120 (100) |

Notes: N=Frequency; %=Percentage

Table 4. A cross-tabulation between mental fatigue scale and educational level.

| Mental fatigue scale (MFS) | Education level | | | | Total [N (%)] |
|-------------------------------|---------------------|----------------------|--------------------|-----------------|------------------|
| | Tertiary [N (%)] | Secondary [N (%)] | Primary [N (%)] | None [N (%)] | |
| No mental fatigue | 276 (74.4) | 266 (56.1) | 103 (44.4) | 27 (62.8) | 672 (60.0) |
| Slight mental fatigue | 37 (10.0) | 92 (19.4) | 45 (19.4) | 7 (16.3) | 181 (16.2) |
| Fairly serious mental fatigue | 32 (8.6) | 70 (14.8) | 45 (19.4) | 3 (7.0) | 150 (13.4) |
| Serious mental fatigue | 26 (7.0) | 46 (9.7) | 39 (16.8) | 6 (14.0) | 117 (10.4) |
| Total | 371 (100) | 474 (100) | 232 (100) | 43 (100) | 1120 (100) |

Notes: N=Frequency; %=Percentage

Table 5 presents a cross-tabulation between the Mental Fatigue Scale (MFS) and the union status of the sampled respondents. The findings revealed that most of the widowed sampled respondents were classified with different levels of mental fatigue (56.6%, n=106) followed by those in the separated union status (42.2%, n=54), and so forth, χ^2 (df=15)=62.136, $P<0.001$). Furthermore, 20.3% (n=38) of the widowed sampled respondents were classified as having serious mental fatigue compared to 11.80% (n=6) of those in common-law unions, and so forth. Table 6 presents an Ordinary Least Square (OLS) model of Mental Fatigue by selected socio-demographic variables. One thousand one hundred and twenty respondents were used to establish this OLS model. Based on the ANOVA test, OLS can be used for the mental fatigue estimators (i.e., $F[13, 1106]=13.940$, $P<0.001$). This study tests the hypothesis that mental fatigue is influenced by the age, gender, educational status, and marital status of respondents who are 55+ years old in Jamaica (Eq. (1):

$$MF=f(A, G, ED, MS) \quad \text{Eq. (1)}$$

Where; MF is mental fatigue by way of the Mental Fatigue Scale, A denotes the age cohorts, G represents the gender of the respondents, ED is the educational level/status, and MS is the marital status of the respondent. Based on the OLS estimator model (Table 6), mental fatigue among Jamaicans ages 55+ years old is influenced by A, G, and ED. The three estimates of mental fatigue for Jamaicans ages 55+ years account for 13.1% of the variability in mental fatigue (i.e., adjusted R squared value).

Table 5. A cross-tabulation between mental fatigue scale and union status.

| Mental fatigue scale (MFS) | Education level | | | | | | Total [N (%)] |
|-------------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | a [N (%)] | b [N (%)] | c [N (%)] | d [N (%)] | e [N (%)] | f [N (%)] | |
| No mental fatigue | 94 (58.8) | 263 (66.6) | 81 (43.3) | 74 (57.8) | 108 (67.1) | 52 (58.4) | 672 (60.0) |
| Slight mental fatigue | 37 (23.1) | 60 (15.2) | 26 (13.9) | 24 (18.8) | 21 (13.0) | 13 (14.6) | 181 (16.2) |
| Fairly serious mental fatigue | 18 (11.3) | 45 (11.4) | 42 (22.5) | 18 (14.1) | 13 (8.1) | 14 (15.7) | 150 (13.4) |

| | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Serious mental fatigue | 11 (6.9) | 27 (6.8) | 38 (20.3) | 12 (9.4) | 19 (11.8) | 10 (11.2) | 117 (10.4) |
| Total | 160 (100) | 395 (100) | 187 (100) | 128 (100) | 161 (100) | 89 (100) | 1120 (100) |

Notes: N=Frequency; %=Percentage; a=single; b=married; c=widowed; d=divorced; e=common law union; f=separated.

Table 6. Ordinary least square (OLS) model of mental fatigue by selected socio-demographic variables (n=1020).

| Model | Unstandardized coefficient | | Standardized coefficient | t | p-value | 95.0% CI | |
|---------------------------------|----------------------------|------------|--------------------------|--------|---------|-------------|-------------|
| | B | Std. Error | Beta | | | Lower bound | Upper bound |
| Constant | 5.952 | 1.389 | - | 4.284 | <0.001 | 3.226 | 8.678 |
| Female | 1.259 | 0.472 | 0.076 | 2.669 | 0.008 | 0.334 | 2.184 |
| Non-binary | 1.902 | 3.903 | 0.014 | 0.487 | 0.626 | -5.757 | 9.561 |
| Reference male | 1.000 | - | - | - | - | - | - |
| Young old | 0.670 | 0.551 | 0.037 | 1.214 | 0.225 | -0.412 | 1.752 |
| Old-old | 2.188 | 0.712 | 0.094 | 3.073 | 0.002 | 0.791 | 3.586 |
| Oldest old | 5.973 | 0.863 | 0.206 | 6.918 | <0.001 | 4.279 | 7.667 |
| Reference (approaching old) | 1.000 | - | - | - | - | - | - |
| Tertiary | -1.232 | 1.273 | -0.070 | -0.968 | 0.333 | -3.729 | 1.265 |
| Secondary | 1.431 | 1.249 | 0.085 | 1.146 | 0.252 | -1.019 | 3.882 |
| Primary | 3.652 | 1.291 | 0.178 | 2.828 | 0.005 | 1.118 | 6.186 |
| Reference (No formal education) | 1.000 | - | - | - | - | - | - |
| Married | -0.647 | 0.733 | -0.037 | -0.882 | 0.378 | -2.086 | 0.792 |
| Widowed | 2.963 | 0.849 | 0.133 | 3.489 | <0.001 | 1.297 | 4.629 |
| Divorced | 0.908 | 0.926 | 0.035 | 0.980 | 0.327 | -0.910 | 2.726 |
| Common law | 0.181 | 0.873 | 0.008 | 0.208 | 0.836 | -1.532 | 1.895 |
| Separated | 0.456 | 1.028 | 0.015 | 0.444 | 0.657 | -1.561 | 2.474 |
| Reference (single) | 1.000 | - | - | - | - | - | - |

The Coronavirus disease 2019 (COVID-19) was a biological disease (Knight, 2021; Dehghani and Masoumi, 2020; WHO, 2020; Zhang et al., 2020; Marra et al., 2003), with psychosocial components (Hosseini-Nezhad et al., 2022; Kelly, 2021; Pereira et al., 2020; Saladino et al., 2020; Raza et al., 2020; Zou et al., 2020); with little emphasis placed on the latter at the onset of the outbreak. Hosseini-Nezhad et al (2022) noted, “The pandemic has had an overall detrimental effect on everyone to some extent, with a disproportionate impact on more vulnerable populations” (Hosseini-Nezhad et al., 2022), which is the rationale for the current study. The present study examines those 55+ years old which is a vulnerable population within all contemporary societies, the elderly. This cohort is frequently studied in the area of gerontology. Gerontology is described by Encyclopedia Britannica as the scientific study of the phenomenon of ageing, which includes the gradual changes that occur in a cell, a tissue, an organ system, a whole organism, or a collection of organisms over time (Britannica, 2021). Researchers focused on developing a broad understanding of the experiences of people at specific ages, such as mental and physical well-being. The older adult population can be divided into three life-stage subgroups: the young-old (approximately 65-74), the middle-old (ages 75-84), and the old-old (over age 85). Today’s young-old age group is generally happier, healthier, and financially better off than the young-old of previous generations (Little, 2016). The present study examines a vulnerable population from a psychological perspective, mental fatigue more so post COVID-19.

Using statistics for 2018, 13.0% of the population in Jamaica are 60+ years old (i.e., 355,574/2,727,503*100), 18.0% are 55+ years old (492,221/2,727,503*100), and 9.2% are 65+ years (249,789/2,727,503*100) (Statistical Institute of Jamaica, 2018). The researchers of this current study included persons 55 years and older simply because those 55-64 years are approaching young old age and will be classified into the elderly

population (65+ years) in less than a decade and some in 12 months. Sabharwal et al. (2015) opined, “Although persons who are 65 years of age were commonly described as elderly, this accounted for less than half of the studies we examined. Furthermore, there is considerable heterogeneity amongst these definitions of elderly age with a range of 50-80 years of age observed within the observed orthopaedic studies” (Sabharwal et al., 2015), which provides a context for studying those 55 years and older in Jamaica. Data was collected via a Google Document form for an online survey, which was developed through the use of the Mental Fatigue Scale by Johansson and Ronnback (2014), who created the original survey (Johansson and Ronnback, 2014) and permitted use in this current research. The Mental Fatigue Scale aids in investigating if the elderly experienced having a hard time paying attention to information, understanding new information, making decisions and plans, solving problems, focusing their thoughts, and remembering things (Dhakal and Bobrin, 2023; NYC Langone Hospitals, 2023; Harvard Medical School, 2022; Howieson, 2015; Alhola and Polo-Kantola, 2007; Glisky, 2007). The current study will provide some context of the challenges experienced by those 55+ years in Jamaica post COVID-19 by examining their mental fatigue.

Of the sampled respondents in the present research, 40% of them experienced some level of mental fatigue during the post COVID-19 era (i.e., October 1, 2022, to December 1, 2022). On reviewing the literature, no studies emerged that examined mental fatigue during COVID-19 and post-COVID-19 in Jamaica, which means there can be no comparison of the findings in this study and others. However, a study conducted by Morgul et al. (2021) and Zou et al. (2020) between May 22 to July 15, 2020, in four outpatient geriatric psychiatry facilities in China (i.e., Beijing Anding Hospital, Guangji Hospital, Lanzhou University Second Hospital, and Xiamen Xianyue Hospital) found that 47.1% of the 1063 patients experienced mental fatigue. Furthermore, 67.3% of those 85+ years old in Jamaica experienced some degree of fatigue compared to 44.1% of those 75-84 years old, 38.4% of those 65-74 years old, and 34.4% of those 55-64 years old. The mental fatigue of those 85+ years old in Jamaica is 1.4 times more than elderly psychiatric outpatients in four locations in China. Although a high per cent of Jamaicans 55+ years old experienced some degree of mental fatigue a study in Istanbul, Turkey, between March and June 2020 found that 64.1% of 4,700 sampled respondents experienced some degree of mental fatigue (Morgul et al., 2021). Although the per cent of those who experienced mental fatigue was extremely high among those 85+ years in Jamaica this is in keeping with a study conducted by Moreh et al. (2010). In a Jerusalem, Longitudinal Cohort Study, Moreh et al. (2010) found that 68% of those 85+ years experienced mental fatigue, which is similar to the results of the current study.

Conclusion

The purpose of this study was to determine how COVID-19 affects mental fatigue in the elderly, fifty-five years and older in Jamaica. The Mental Fatigue Scale constructed by Lars Rönnbäck and Birgitta Johansson was used to create the survey that was sent out. Most of the elderly 55 years and older did not experience Mental Fatigue post-COVID-19 era; but those 85+ years and older substantially experienced mental fatigue (67.1%). The vast majority of respondents said they did not feel mentally fatigued by COVID-19, while a small percentage said they were. Individuals could practice some of

these activities to help reduce the likelihood of mental fatigue in the elderly during future pandemics: spending time in nature, discovering and engaging in a hobby, limiting screen time, taking breaks when jobs or tasks become too demanding, organizing with friends and family group sessions for bonding time, either online or in person and reducing the amount of noise you are exposed to. The Government of Jamaica (GOJ) is committed to making sure that the elderly populations live in a society that upholds their rights and supports their health and safety. As result, the GOJ offers a wide range of assistance services to Jamaica's senior citizens through the National Council for Senior Citizens (NCSC), Golden Age Home, and MOHW's Mental Health Unit. Therefore, the offering of seminars, outreach, or meetings to educate the elderly about these services and what they can do to reduce their chance of experiencing mental fatigue may be beneficial.

Acknowledgement

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Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research.

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