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# The Prevalence of Depression in Jamaican Women: Post-COVID-19

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## Abstract

The COVID-19 pandemic has presented many challenges related to the varied aspects of human life; these challenges have micro and macro effects. Some have been very pervasive while others are very specific. One very pervasive effect of the pandemic is its impact on mental health, particularly depression. Undoubtedly, these global statistics have not exempted our little island-Jamaica, but in some way reflect our reality. To this extent, this research will seek to examine the prevalence of depression in Jamaican women during the COVID-19 pandemic. This study utilizes the cross-sectional research design where a survey consisting of 17 closed-ended questions was developed. The use of an online questionnaire via google form was used to collect primary data from participants 18 years and older living in the 14 parishes of Jamaica. A multi-stage purposive sampling research method was used by utilizing a 95% confidence interval and 2.845% margin of error that calculated a sample size of 1186. The data collection was from October 1, 2022, to November 1, 2022.The Montgomery and Asberg Depression Rating Scale (MADRS) was self-administered by the sampled women in Jamaica. The MADRS consists of 10 items, which is a 7-point Likert scale response from 0 to 6.The results, therefore, indicated that all Jamaican women ages 18 years and older suffer from some degree of depression. Furthermore, 22.8% of Jamaican women were classified as having severe depression, and 0.4% suffered very severe depression, with the majority being mildly depressed (68.9%).There is an abnormally high prevalence of depression affecting women in the Jamaican population from all socioeconomic groups throughout the recent pandemic. Jamaican women affected by depression

have profoundly expressed their thoughts of being weary of life and having frequent suicidal thoughts.

**Keywords**: Depression, Women, Jamaica

## Introduction

The COVID-19 pandemic has presented many challenges related to the varied aspects of human life; these challenges have micro and macro effects. Some have been very pervasive while others are very specific. One very pervasive effect of the pandemic is its impact on mental health, particularly depression [1-5]. This is especially important as the Centers for Disease Control and Prevention (CDC) estimates that at least 50% of individuals will be diagnosed with a mental illness or disorder at some point. [1] Further statistics have revealed that at least 5% of the global population struggle with depression [5]. The World Health Organization (WHO) have been urging countries to enhance and enforce mental health services and support as a direct response to the pandemic [3]. As individuals attempt to adjust to life during the pandemic, the prevalence of depression increased by twenty-five per cent with the greatest impact being on young people and women [3]. Undoubtedly, these global statistics have not exempted our little island- Jamaica, but in some way reflect our reality. To this extent, this research will seek to examine the prevalence of depression in Jamaican women during the COVID-19 pandemic.

## Theoretical framework

Psychologists and Behavioral Therapists have suggested several theoretical frameworks which provide varied explanations for depression. One such framework is Operant Conditioning-which states that depression is caused by the removal of positive reinforcement from the environment.[6] The theory postulates that certain events such as losing a loved one, a job, a business, etc, induce depression, as there is a reduction in positive reinforcement from others. In essence, when an individual starts experiencing events that do not attract positive feedback from others it begets feelings of depression in them. Subsequently, they become socially distant and inactive which inadvertently causes others to sympathize with them. This ultimately leads to maladaptive behaviours which don't aid in helping the individual escape the depressive cycle.[2] [6]

## Literature review

Plethoras of research have been conducted surrounding the relationship between the COVID-19 pandemic and the mental health of women. The World Health Organization (WHO) has reported that research revealed the pandemic has triggered a 25% increase in the prevalence of anxiety and depression worldwide. [3] Though this number is representative of both genders, the percentage of women represented in this statistics outnumbers that of men as women are said to be twice as likely as men to experience depression and other mental issues. [7] It is against this background that this research will seek to curate studies that have been executed, to inform on the relationship between the COVID-19 pandemic and depression in women.

Research conducted by the National Library of Medicine stated that evidence at the end of 2020 indicated that women in the general population and especially those who are front-line workers are at the greatest risk of adverse mental effects. The research was supported by arguments such as the fact that 77% of healthcare workers are women and are the ones who are most likely to be at the bedsides of sick and dying patients, notwithstanding the reality that most are still caregivers for their families. Thus, after the high demands of their jobs and of their personal lives, these women experience burnout which often leads to depression, anxiety and other adverse mental effects. This has undoubtedly contributed to the statistics which echo the pervasive effects of the pandemic on these women and how it has contributed to depression.

Another study which focused on the prevalence of depression symptoms before and during the pandemic revealed that depression symptoms ranging from moderate to severe were 3-fold higher during the COVID-19 pandemic. This information was recorded with the use of standardized ratings such as the PHQ2/PHQ9 and the GAD-7. [8] The increase in depression levels was again attributed to greater exposure to stressors and fewer economic resources. Reports coming out of China, where SARS-CoV-2 was first contracted by a human, postulate that being a woman in front-line healthcare is associated with a great risk of anxiety and depression. To add even more credibility a comparison of the psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers revealed that the vulnerability to depression and anxiety among women during the COVID-19 pandemic is like that reported for previous viral epidemics, including MERS, Ebola, and SARS. [9]

The implementation of measures geared towards preventing the spread of the virus has also been a major contributor to the depression levels of women during the pandemic. Measures such as the enforcement of social distancing, reduction of religious activities and tourism have all contributed to the spike in depression rates among women. [10] This is noteworthy as other research has revealed that social interactions have a great influence on women's mental health. The effect of the influence during COVID-19 pandemic has been affected by factors such as the increase in domestic violence which directly results in spending more time at home. Certainly, this is one of the contributing factors to the rise of depression levels within the women's population. Studies conducted on women who have experienced domestic violence unveiled that they experience psychiatric disorders including depression, stress and post-traumatic stress disorders. [11], [12]

The spikes in depression among women can also be attributed to the increased pregnancy and birth rate during the pandemic. Though this is not true for all countries, before the pandemic many developed countries such as the United States of America were experiencing a decline in birth rates. However, during COVID-19 a lot more women conceived. [13] The restrictions and conditions introduced by the COVID-19 pandemic have created a surge in post-partum depression which has contributed to the overall spike in depression rates amongst women during the pandemic. [14]

The evidence from the works of other scholars and researchers has suggested that depression rates among women have spiked during the COVID-19 pandemic. This spike is attributed to several factors including added workload and stressors, economic hardships, enforcement of

social distancing, increased domestic violence and a surge in pregnancy which is directly related to post-partum depression. To further add to the evidence, this research will seek to examine whether or not COVID-19 has affected the depression rates among women in Jamaica. The evidence will most definitely be compared to the findings curated in this literature review.

## Materials and methods

Quantitative research was done to determine the Depression prevalence in Jamaican women post-COVID-19. Quantitative research generates statistics through the use of large-scale survey research, using methods such as questionnaires or structured interviews[15-17]. Quantitative research involves the process of objectively collecting and analyzing numerical data to describe, predict, or control variables of interest. Its primary goal is to get a representative sample or a small collection of units from a larger collection or population [15]. This study utilizes the cross-sectional research design where a survey consisting of 17 closed-ended questions was developed. The use of an online questionnaire via google form was used to collect primary data from participants 18 years and older living in the 14 parishes of Jamaica.

The research was conducted using Jamaica's 2018 estimated female adult population of 1,023,356 (18+ years) published by the Statistical Institute of Jamaica [18]. A multi-stage purposive sampling research method was used by utilizing a 95% confidence interval and 2.845% margin of error that calculated a sample size of 1186. The collection of data took place between October 1, 2022, to November 1, 2022. This research had a total of 1186 (100%) successful responses from Jamaicans 18 years and older. To achieve the sample target of 1186 Jamaicans the survey was distributed via telecommunication methods such as Whatsapp, Facebook, Messenger and Instagram were utilized. The survey was self-administered by all respondents, with there being no personal identifier other than age, marital status, educational level, and parish of residents. The survey was done anonymously, therefore participants were not required to disclose any personal information.

Data was stored, retrieved and analyzed using the Statistical Packages for the Social Sciences (SPSS) for Windows, Version 29.0. The findings were presented using frequency distribution tables, cross-tabulations, and descriptive statistics. A p-value of 5% was used to determine the level of significance at a two-tailed level. Confirmatory factor analysis was used to examine the suitability and appropriateness of the Montgomery and Asberg Depression Rating Scale (MADRS).

The Montgomery and Asberg Depression Rating Scale (MADRS) was self-administered by the sampled women in Jamaica. The MADRS consists of 10 items, which is a 7-point Likert scale response from 0 to 6.The rating of the MADRS is such that it can assess the severity of depression because the items ranged from broadly phrased questions to the precise rating of severity. The 10-question 7-point Likert scale items cover apparent Sadness, reported sadness, inner tension, reduced sleep, reduced appetite, concentration difficulties, lassitude, inability to feel, pessimistic thoughts, and suicidal thoughts. The MADRS is the summation of all 10 questions, with higher scores indicating greater depression and vice versa. The raw scores are then classified into no depression (normal range, 0-6), mild depression (7-19), moderate

depression (20-34), severe depression (35-59), and very severe depression (60+). Montgomery and Asberg [19] opined, “Scores on the scale correlated significantly with scores on a standard rating scale for depression, the Hamilton Rating Scale (HRS), indicating its validity as a general severity estimate. Its capacity to differentiate between responders and non-responders to antidepressant treatment was better than the HRS.”According to Huijbrechts, "Considering the ease of scoring both scales in one interview and the wider international use of the HRSD, scoring both the HRSD and the MADRS to measure the severity of a depression seems to be an acceptable covenant” [20]

## Findings

Table 1 presents the socio-demographic characteristics of the sampled Jamaican women. Of the sampled Jamaican women (n=1186), the majority of them were aged 21-29 years old (43.5%), in the working class (53.3%), single (33.0%), and have collect/university level education (37.4%).

**Table 1: Socio-demographic characteristics of the sampled respondents, n=1186**

| **Details** | **% (n)** |
|---|---|
| **Age cohort** | |
| 18-20 years old | 17.1 (203) |
| 21-29 years old | 43.5 (515) |
| 30-39 years old | 23.7 (23.7) |
| 40+ years old | 15.7 (186) |
| **Subjective social class** | |
| Working (or lower) class | 53.3 (622) |
| Middle class | 19.0 (222) |
| Upper Class | 27.6 (322) |
| **Marital status** | |
| Common-law | 12.4 (147) |
| Divorced | 11.6 (138) |
| Married | 19.3 (229) |
| Separated | 15.2 (180) |
| Single | 33.0 (391) |
| Widowed | 8.5 (101) |
| **Area of residence** | |
| Clarendon | 8.3 (99) |
| Hanover | 3.1 (37) |
| Kingston | 11.0 (131) |
| Manchester | 6.3 (75) |
| Portland | 2.7 (32) |
| St. Andrew | 11.0 (131) |
| St. Ann | 5.7 (68) |
| St. Catherine | 25.0 (296) |
| St. Elizabeth | 5.1 (61) |
| St. James | 6.2 (73) |

| | |
|---|---|
| St. Mary | 3.8 (45) |
| St. Thomas | 4.1 (49) |
| Trelawny | 2.5 (30) |
| Westmoreland | 5.0 (59) |
| **Educational level** | |
| None | 2.3 (27) |
| Primary/Elementary | 27.7 (328) |
| High school/secondary | 32.6 (387) |
| College/University | 37.4 (444) |

Validation of Montgomery and Asberg Depression Rating Scale (MADRS)

Cronbach alpha was performed on the 10-item Montgomery and Asberg Depression Rating Scale (MADRS). To validate this index, a sample of 1,186 Jamaican women ages 18 years and older were used, indicating that this needs all required minimum number of cases by the recommendation of Tabachnick & Fidell [21, 22].

The Cronbach alpha was 0.837, which measures that the items for the Montgomery and Asberg Depression Rating Scale (MADRS) are suitable for factor analysis. Normality tests were done on all the items, and items were found to be normally distributed ($P < 0.0001$). All the mean values for the 10 items lie between 3.10 and 3.40.

Examination of inter-item correlations of the 10 items from the Montgomery and Asberg Depression Rating Scale (MADRS) revealed that only one of the bivariate correlations had a value over 0.5. This denotes that all of the bivariate associations were very weak to weak. With no bivariate correlation being moderate to strong, which means that the factors are good construct the MADRS.

The Kaiser-Myer-Oklin value was 0.895, exceeding the recommended value of 0.6 [23, 24] and Bartlett's Test of Sphericity [25] reached statistical significance (<0.0001), supporting the factorability of the correlation matrix. It follows, therefore, that 10-item MADRS are suitable for PCA.

On examination of the total Variance Explained, the findings revealed the presence of the first three components' eigen values exceeding 1, explaining 43.57% of the variance. The Scree plot revealed a clear break after the third component, after which the graph flattens. This means the items that fall below this break can be discarded or approached with caution in the analysis. The components table shows the loading of each factor on the component, suggesting that one component should be extracted.

Communalities show the number of variables accounted for in the component captured by each variable. The table of Communalities for this analysis shows commonalities for seven variables below 0.50.Higher communalities are desirable. In that case, it is a candidate for exclusion from the analysis because the factor solution contains less than half of the variance in the original

variable, and the individual variable might better represent the explanatory power of that variable.

The findings from the rotation show the factor loadings that result from Promax rotation for one component. The rotated factors are just as good as the initial factors in explaining and reproducing the observed correlation matrix in the Total Variance Explained. Also, the cumulative percentages are the same. The reliability statistics revealed an alpha coefficient of 0.9 which is beyond Nunnally's 0.7 threshold [26]. This is acceptable based on the reliability statistics reported in reviewed journals. As such the Montgomery and Asberg Depression Rating Scale (MADRS) is suitable and appropriate for assessing depression in Jamaican women ages 18 years old and older.

Of the sampled Jamaican women (n=1186), none of them was classified into the no depression classification. The results, therefore, indicated that all Jamaican women ages 18 years and older suffer from some degree of depression. Furthermore, 22.8% of Jamaican women were classified as having severe depression, and 0.4% suffered very severe depression, with the majority being mildly depressed (68.9%).

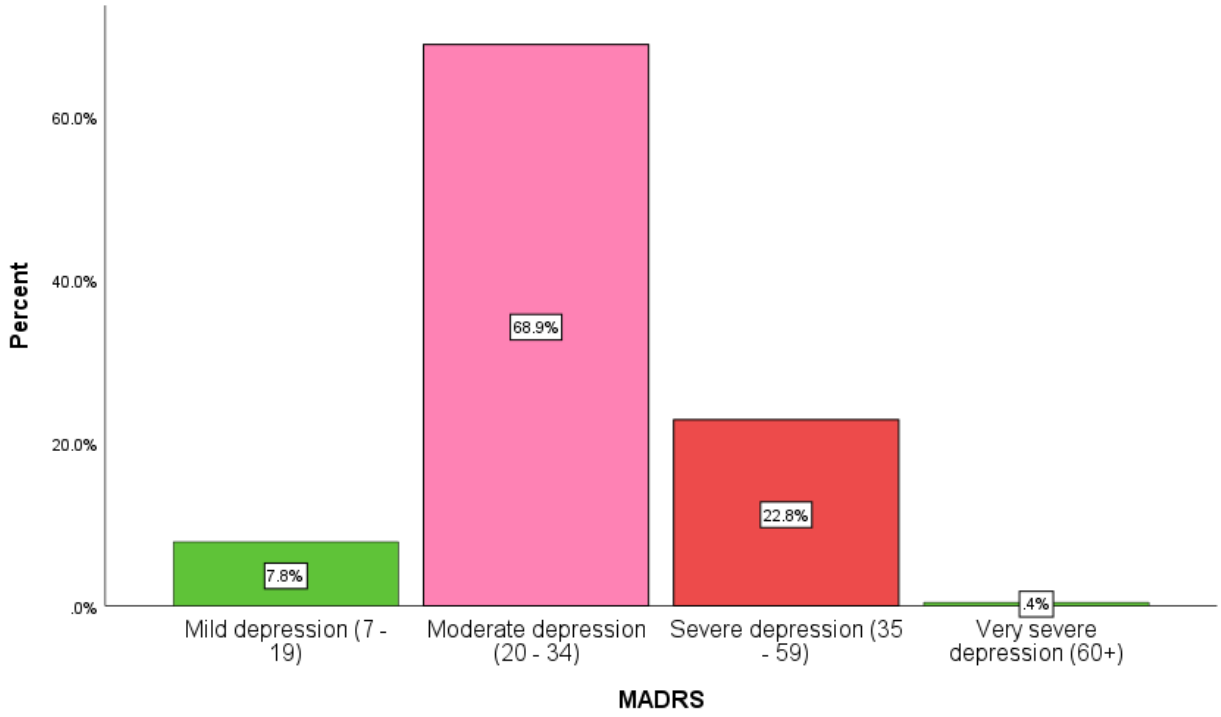


**Figure 1: Montgomery and Asberg Depression Rating Scale (MADRS) for assessing depression in Jamaican women ages 18 years old and older**

Table 2 presents a cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and the age cohort. Using chi-square tests, a significant statistical relationship emerged for the previously mentioned variables ($\chi^2(9)=19.372$, $P = 0.022$). Jamaican women ages 40 years old and older experienced the highest level of severe depression (30.1%) compared to 26.0% of those 30-39 years old, 24.6% of those 18-20 years, and 17.7% of those 21-29 years old.

**Table 2: A cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and Age cohort**

| Details | Age | | | | Total |
|---|---|---|---|---|---|
| | 18-20 | 21-29 | 30-39 | 40+ | |
| | % (n) | % (n) | % (n) | % (n) | % (n) |
| MADRS | | | | | |
| Mild depression | 10.3 (21) | 8.0 (41) | 6.0 (17) | 7.5 (14) | 7.8 (93) |
| Moderate depression | 64.5 (131) | 73.8 (380) | 67.6 (190) | 62.4 (116) | 68.9 (817) |
| Severe depression | 24.6 (50) | 17.7 (91) | 26.0 (73) | 30.1 (56) | 22.8 (270) |
| Very severe depression | 0.5 (1) | 0.6 (3) | 0.4 (1) | 0.0 (0) | 0.4 (5) |
| **Total** | **203** | **515** | **281** | **186** | **1185** |

Table 3 presents a cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and the age cohort. Using chi-square tests, a significant statistical relationship emerged for the previously mentioned variables ($\chi^2$ (6)= 76.954, *P*< 0.0001). Jamaican women who classify themselves as being in the working class experienced the highest level of severe depression (29.3%) compared to those in the self-reported middle class (27.3) and 17.7% of those in the self-reported upper class.

**Table 3: A cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and Subjective Social Class**

| Details | Age | | | Total |
|---|---|---|---|---|
| | Working class | Middle | Upper | |
| | % (n) | % (n) | % (n) | % (n) |
| MADRS | | | | |
| Mild depression | 4.7 (29) | 19.4 (43) | 6.5 (21) | 8.0 (93) |
| Moderate depression | 50.9 (113) | 65.8 (212) | 77.2 (480) | 69.0 (805) |
| Severe depression | 29.3 (65) | 27.3 (88) | 17.7 (110) | 22.6 (263) |
| Very severe depression | 0.5 (1) | 0.3 (1) | 0.5 (3) | 0.4 (5) |
| **Total** | **222** | **322** | **622** | **1166** |

Table 4 presents a cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and marital status. Using chi-square tests, a significant statistical relationship emerged for the previously mentioned variables ($\chi^2$ (15) = 55.166, *P*< 0.0001). The findings revealed that single Jamaican women (17.9%) have the lowest level of severe depression followed by married women (19.2%). On the other hand, Jamaican women who are widowed had the highest level of severe depression (32.7%) followed by those who are separated (31.7%), and so on.

**Table 4: A cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and Marital Status**

| Details | Marital status | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Common-law | Divorced | Married | Separated | Single | Widowed | |
| | % (n) | % (n) | % (n) | | | % (n) | % (n) |
| MADRS | | | | | | | |
| Mild depression | 12.2 (18) | 1.4 (2) | 9.6 (22) | 1.1 (2) | 11.8 (46) | 3.0 (3) | 7.8 (93) |
| Moderate depression | 63.3 (93) | 76.1 (105) | 70.7 (162) | 67.2 (121) | 69.6 (272) | 63.4 (64) | 68.9 (817) |
| Severe depression | 24.5 (36) | 22.5 (31) | 19.2 (44) | 31.7 (57) | 17.9 (70) | 32.7 (33) | 22.8 (271) |
| Very severe depression | 0.0 (0) | 0.0 (0) | 0.4 (1) | 0.0 (0) | 0.8 (3) | 1.0 (1) | 0.4 (5) |
| **Total** | **147** | **138** | **229** | **180** | **391** | **101** | **1186** |

Table 5 presents a cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and educational level. Using chi-square tests, a significant statistical relationship emerged for the previously mentioned variables ($\chi^2$ (9) =70.525, $P$< 0.0001). The findings revealed that Jamaican women who do not have any education had the highest level of severe depression (37.0%) followed by those with primary-level education (32.6%). On the other hand, Jamaican women who had college-level education had the lowest level of severe depression (14.6%) compared to 23.0% of those with secondary-level education.

**Table 5: A cross-tabulation between Montgomery and Asberg Depression Rating Scale (MADRS) and Educational level**

| Details | Educational level | | | | Total |
|---|---|---|---|---|---|
| | None | Primary | Secondary | College | |
| | % (n) | % (n) | % (n) | | % (n) |
| MADRS | | | | | |
| Mild depression | 3.7 (1) | 0.6 (2) | 8.3 (32) | 13.1 (58) | 7.8 (93) |
| Moderate depression | 59.3 (16) | 66.8 (219) | 68.2 (264) | 71.6 (318) | 68.9 (817) |
| Severe depression | 37.0 (10) | 32.6 (107) | 23.0 (89) | 14.6 (65) | 22.8 (271) |
| Very severe depression | 0.0 (0) | 0.0 (0) | 0.5 (2) | 0.7 (3) | 0.4 (5) |
| **Total** | **27** | **328** | **387** | **444** | **1186** |

Table 6 presents a cross-tabulation between the Montgomery and Asberg Depression Rating Scale (MADRS) and the parish of residence. Using chi-square tests, a significant statistical relationship emerged for the previously mentioned variables ($\chi^2$ (39) = 225.349, $P$< 0.0001). The findings revealed that Jamaican women who dwelled in St. James had the highest level of severe depression (53.4%) followed by those who lived in Kingston (47.3%), Hanover (35.1%), Portland (31.3%), and St. Catherine (23.0%). On the other hand, Jamaican women who dwelled in Clarendon had the lowest level of severe depression (1.0%) compared to those who resided in Trelawny (6.7%), and those in Westmoreland (8.5%).

**Table 6: A cross-tabulation between the Montgomery and Asberg Depression Rating Scale (MADRS) and the Parish of Residence**

| MADRS | Parish of Residence | | | | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Clarendon | Hanover | Kingston | Manchester | Portland | St. Andrew | St. Ann | St. Catherine | St. Elizabeth | St. James | St. Mary | St. Thomas | Trelawny | Westmoreland | |
| Mild depression (7-19) | 5.1 (5) | 32.4 (12) | 3.1 (4) | 17.3 (13) | 6.3 (2) | 2.3 (3) | 0.0 (0) | 11.1 (33) | 6.6 (4) | 5.5 (4) | 0.0 (0) | 12.2 (6) | 6.7 (2) | 8.5 (5) | 7.8 (93) |
| Moderate depression (20-34) | 93.9 (93) | 32.4 (12) | 49.6 (65) | 62.7 (47) | 62.5 (20) | 80.9 (106) | 86.8 (59) | 65.2 (193) | 75.4 (46) | 39.7 (29) | 86.7 (39) | 69.4 (34) | 83.3 (25) | 83.1 (49) | 68.9 (817) |
| Severe depression (35-59) | 1.0 (1) | 35.1 (13) | 47.3 (62) | 20.0 (15) | 31.3 (10) | 16.8 (22) | 11.8 (8) | 23.0 (68) | 18.0 (11) | 53.4 (39) | 13.3 (6) | 18.4 (9) | 6.7 (2) | 8.5 (5) | 22.8 (271) |
| Very severe depression (60+) | 0.0 (0) | 0.0 (0) | 0.0 (0) | 0.0 (0) | 0.0 (0) | 0.0 (0) | 1.5 (1) | 0.7 (2) | 0.0 (0) | 1.4 (1) | 0.0 (0) | 0.0 (0) | 3.3 (1) | 0.0 (0) | 0.4 (5) |
| Total | 99 | 37 | 131 | 75 | 32 | 131 | 68 | 296 | 61 | 73 | 45 | 49 | 30 | 59 | 1186 |

Figure 2 depicts a bar graph of the sampled respondents' views on suicidal thoughts. Of the sampled respondents (n=1186), 61.6% of them indicated 'Weary of life or only fleeting suicidal thoughts' 9.8% indicated 'Probably better off dead or suicidal thoughts are common, and suicide is considered as a possible solution, but without specific plans or intention' and 5.1% indicated 'Explicit plans for suicide when there is an opportunity or active preparations for suicide'.

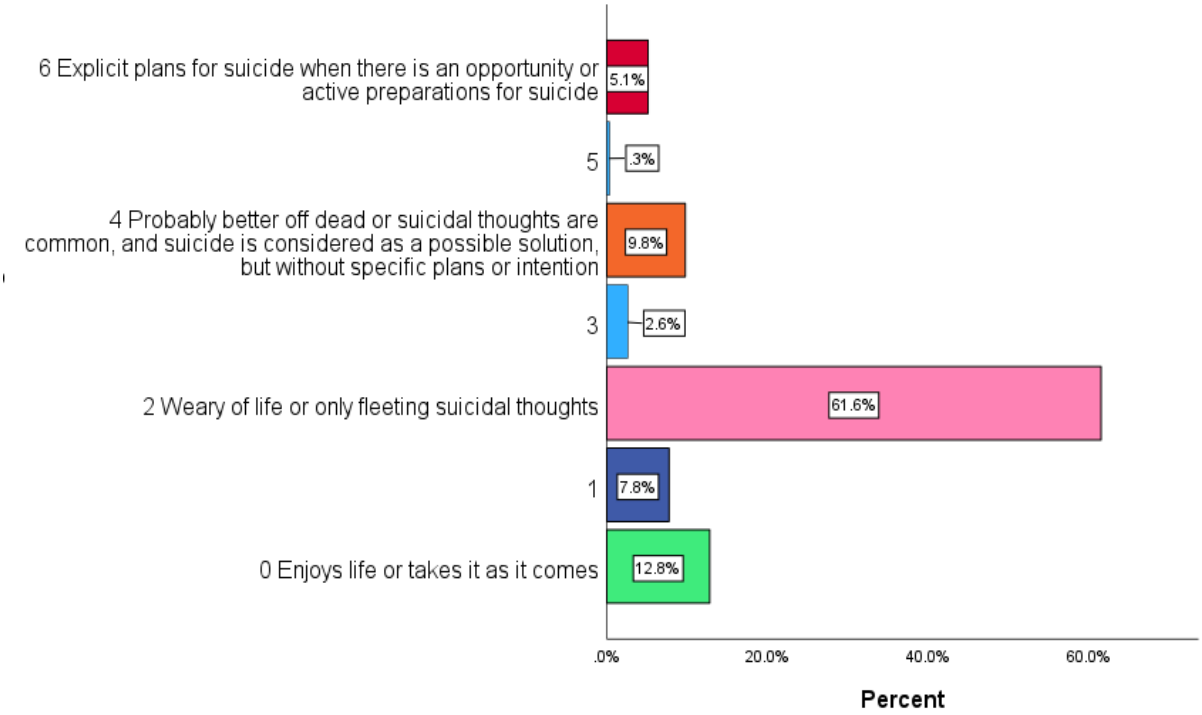


**Figure 2: The Sampled Jamaican Women's perspective on suicidal thought**

## Discussion

The World Health Organization [5] indicated that 3.8% of the global human population suffers from depression, 5.0% of adults are depressed and 5.7% of the elderly population (ages 60 years and older). The WHO opined, "Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in everyday life. Especially when recurrent and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family. At its worst, depression can lead to suicide. Over 700 000 people die due to suicide every year. Suicide is the fourth leading cause of death in 15-29-year-olds." The current study revealed that 22.8% of Jamaican women ages 18 years and older were severely depressed during the Post-COVID-19 pandemic. Sixty-nine per cent of the current sampled Jamaican women were moderately depressed and 0.4% experienced very severe depression. To understand the extent of the level of depression among Jamaican women, one must bring into the discourse the causes of this phenomenon. The WHO postulated, "The causes of depression include complex interactions between social, psychological and biological factors. Life events such as childhood adversity, loss and unemployment contribute to and may catalyse the development of depression" [4], which excludes a health pandemic which in the present era is COVID-19.

This study revealed that all the Jamaican women ages 18 years and older were experiencing different levels of depression. The National Institute of Mental Health (NIMH) [27] articulated that "Depression is more common among women than men, likely due to certain biological, hormonal, and social factors that are unique to women." An unanswered question that must be examined in the current literature is whether depression is greater in Jamaican women than men. In another national cross-sectional survey, Bourne et al. [28] found that 52.7% of Jamaican males had various levels of loneliness with 3.6% having severe depression. The current study revealed that 100% of Jamaican women experienced various levels of depression, with 23.2% having at least severe depression. The level of depression is greater in Jamaican women than men, which concurs with the literature on the matter [4, 5, 27]. In 1999, a study done by Bhatia and Bhatia [29] found that depression in American women was twice as in men, which is also the case in Canada, France, Puerto Rico, Lebanon, Korea, Italy, West Germany, Taiwan, and New Zealand [30]. This research goes further to examine the severity of depression in women and compare it with a study by Bourne et al on men [28].

Currently, severe depression in Jamaican women is 6.4 times that in Jamaican men, and this encapsulates that the depression epidemic is a gendered phenomenon. An additional finding from the current study is that 9.8% of Jamaican women ages 18 years and older indicated that they probably would be better off dead. Bourne et al's study, on the other hand, found that 5.1% of Jamaican men ages 18 years and older indicated they probably would be better off dead [28]. Thinking that one is probably better off dead is an indication of the precursor to suicide, which Abel et al. [31] noted should be a public health concern in Jamaica. Although women are twice more likely to have suicidal thoughts, Jamaican men are more likely to commit suicide than women [32].

The findings of depression in Jamaican women are clearly at an epidemic stage and clearly, COVID-19 has created a national public health challenge that requires immediate resolution. The WHO [33] aptly summarized the mental health epidemic following COVID-19 this way, "Plenty of us became more anxious, but for some COVID-19 has sparked or amplified much more serious mental health problems". During the post-COVID-19 pandemic era, many Jamaicans are suffering from mental health issues and this is even worse for women, which according to the WHO has increased by 25% globally [3]. If the mental health issues experienced by Jamaicans are not interrupted this may become a national mental health pandemic including an increase in suicides and murder-suicides.

## Conclusion

There is an abnormally high prevalence of depression affecting women in the Jamaican population from all socioeconomic groups throughout the recent pandemic. Jamaican women affected by depression have profoundly expressed their thoughts of being weary of life and having frequent suicidal thoughts. Burnout in women aged 18 years and above is directly linked to a decrease in intellectual output and social operation resulting in a diminished capacity to function and a thwarting of the will to survive. However, severe depression is most impacting on women over 40 years old. Jamaican women in the working class are experiencing the highest level of hopelessness, as they see no way out of their sorrows. Women that have suffered the loss

of a loved one are the least effective in bouncing back from post-traumatic stress disorder. Women with the lowest level of exposure to formal education showed the highest limitation in their capacity to cope with life stressors. Women that dwell in urban areas were most incapable of coping and were most pessimistic in their thoughts.

## Recommendations

1. Encourage women over 40 years old to join soil groups via social media and face-to-face.
2. Organize training programmes to empower women into employment, self-employment, business and investment.
3. Set up online programs that allow for women to access formal primary and secondary education through Online training or mail-in of documents.

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