SEXUAL DYSFUNCTION EXPERIENCED BY JAMAICAN ADULT MALE: POST COVID-19

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Abstract. This study was conducted to determine sexual dysfunctions among Jamaican adult male during the COVID-19 pandemic. A quantitative research design was utilized to gather data among 1067 respondents aged 18 years and above sampled from a population of 1,242,775 Jamaican male living across the 14 parishes. The data collection was done by using a standardized web-based survey. That Statistical Packages for Social Sciences (SPSS) was used to analyze the data retrieved from the participating respondents. Of the sampled group, the largest percentage of respondents (25.6% or 273), were aged 18 to 28 years of age, 31.2% or 333 of the participants in this research were confident that they could not only achieve an erection but also maintain it. 24.6% stated that they were able to achieve an erection and 24.7% said that this achieved erection was hard enough for penetration. 29.1% of respondents reported very high sex drives, 32.6% high sex drives, 27.1% moderate sex drives, and 6.3% low sex drives. It can be concluded from the findings of this research that, while the mental health of Jamaican men has been impacted by the COVID-19 pandemic, their sexual desires and functioning were not.

Keywords: *sexual dysfunction, mental health, Jamaican male, post COVID-19*

Introduction

Sexual dysfunction is a global public health phenomenon (Hsieh et al., 2022; Katz et al., 2022; Masoudi et al., 2022; Szuster et al., 2022; Salama and Blgozah, 2021; Kloner, 2008; Kloner and Padma-Nathan, 2005; Kloner et al., 2003). According to Mollaioli et al. (2021), "The COVID-19–related lockdown has profoundly changed human behaviours and habits, impairing general and psychological well-being. Along with psychosocial consequences, it is possible that sexual behaviour was also affected". Erectile dysfunction is the inability to achieve or sustain an erection or to initiate the penile stiffness needed for sexual intercourse (Bilal and Abbasi, 2020). It is also described as the inability to reach completion during sexual activity for six months in a row. According to Mollaioli et al. (2020), the COVID-19 lockdown dramatically impacted the psychological, relational, and sexual health of the population. The research was done and found that subjects who could maintain sexual activity throughout the lockdown had significantly lower psychological distress, than those who had no sexual activity due to lockdown policies, with the level of anxiety and depression being significantly lower in subjects sexually active during lockdown (Mollaioli et al., 2020).

While erectile dysfunction as a topic may be able to stand on its own, it may also be connected to a decline or change in mental health in male and occasionally results from depression and increased anxiety (American Urology Association, 2023; University of California San Francisco, 2023; Sheng, 2021; Yafi et al., 2016). Conversely, men with erectile dysfunction or those at risk for developing it can experience depression as a result of their intense anxiety over failing to meet their sexual needs (Cleveland Clinic, 2023; Xiao, et al., 2023; Velurajah et al., 2022; Bilal and Abbasi, 2020; Yafi et al., 2016). The International Index of Erectile Functioning, which facilitates the collection of pertinent and accurate data from a specific population, is the most widely used assessment instrument for the diagnosis of erectile dysfunction. To accurately determine how much the pandemic has affected male sexual functioning and how they are adjusting to these changes, we as researchers intend to analyze male sexual dysfunction and mental health during COVID-19 (*Figure 1*). Because of the ongoing quarantine and additional information, we may see how the COVID-19 epidemic affects men by sending digital surveys out to gather all the necessary information.

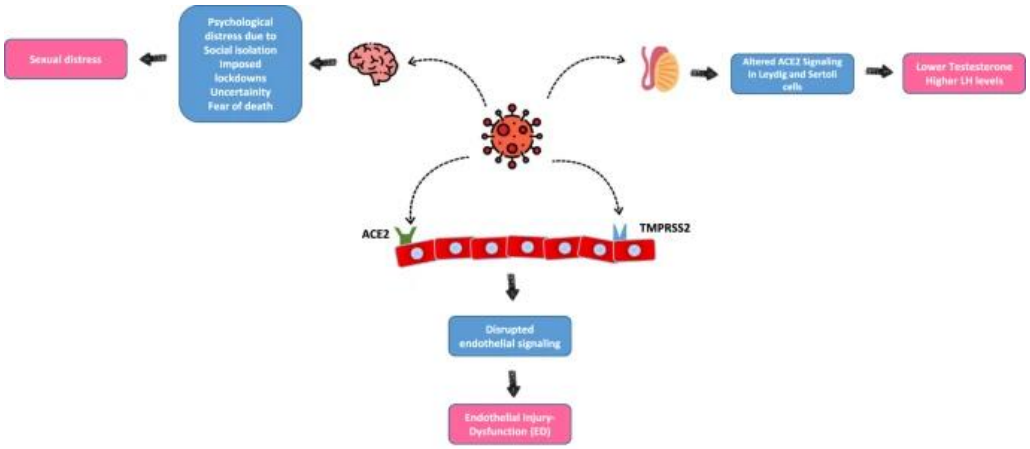

Figure 1. *Mental health and sexual dysfunction of male during COVID-19. Source: Kaynar et al. (2022).*

The researchers, having done extensive research, perused the survey index entitled "International Index of Erectile Functioning. “To be used for their research. This Index was chosen for its connection to the topic and the researchers have chosen to examine it because it is an important tool that is used to measure various aspects of erectile performance across a male population. The theory chosen by the researchers is the social cognitive theory by Albert Bandura, which describes individuals as active agents who can both influence and are influenced by their environment (Villani et al., 2021). Bandura argued that we learn through observation and imitation of others' behaviour, the mental process also plays a significant role in the way that we learn from others in our environment. Bandura included five constructs in the social cognitive theory, self-efficacy was later added as a part of the constructs when the theory evolved from social learning theory to social cognitive theory; it seeks to explore how an individual regulates a particular behaviour utilizing control and reinforcement to a behaviour that is maintained over time (Villani et al., 2021).

Materials and Methods

This research employed a cross-sectional probability self-administered survey to collect data from Jamaican male ages 18 years and older across the fourteen (14) parishes of Jamaica. A list of Jamaica's total population is kept by the Statistical Institute of Jamaica (STATIN). Statistics from STATIN for 2018 revealed that there were 1,350,633 male ages 0+ in Jamaica, which represents 49.5% of the total human population (2,727,503 Jamaicans) (Statistic Institute of Jamaica, 2017). Of the total male population, there were 1,242,775 male ages 18+ years. The figure for 2018 was the latest statistics on Jamaica's human population at the time of this study (Statistic Institute of Jamaica, 2017). Using the adult male population of 1,242,775, a 95% confidence interval, and a 3% margin of error, the calculated sample size was 1067 (*Table 1*). The population distribution of Jamaica based on parish was used to determine the sample distribution of the male population for this study. A stratified random sample was used to select Jamaican adult male across the 14 parishes. A research team was trained in research methods and each person had to complete a course in ethics in clinical and social research before he/she was used in the data collection exercise. The research commenced on October 1, 2022, and ended on November 30, 2022.

Table 1. *The mid-year population and sample size of Jamaica.*

Parish	2018	Probability	Percentage (%)	Sample size
Kingston and St. Andrew	669 978	0.2456	24.56	262
St Thomas	94 968	0.0348	3.48	37
Portland	82 669	0.0303	3.03	32
St Mary	114 902	0.0421	4.21	45
St Ann	174 256	0.0639	6.39	68
Trelawny	76 005	0.0279	2.79	30
St James	185 753	0.0681	6.81	73
Hanover	70 287	0.0258	2.58	27
Westmoreland	145 673	0.0534	5.34	57
St Elizabeth	151 885	0.0557	5.57	59
Manchester	191 940	0.0704	7.04	75
Clarendon	247 778	0.0908	9.08	97
St Catherine	521 409	0.1912	19.12	204
Total	2 727 503	1.0000	100	1 067

Source: Statistic Institute of Jamaica (2017)

A self-administered instrument was used to collect data from each identified male. The research team sought and obtained permission to use a survey developed by a group of researchers from Pfizer (Cappelleri and Stecher, 2008; Cappelleri et al., 1999). The current study adopted Pfizer's 15-item questionnaire and added two demographic questions to form an 18-item survey to collect data from 1067 Jamaican adult male ages 18+ years. The demographic questions are age and parish lived in of respondents. Using a sample of male, Rosen et al. (1997) validated the suitability and appropriateness of the International Index of Erectile Function (IIEF). The scoring for the Erectile Function Questionnaire is Erectile function (Q1-Q5, Q15); Orgasmic function (Q9, Q10); Sexual desire (Q11, Q12); Intercourse satisfaction (Q6, Q7, Q8), and Overall satisfaction (Q13, Q14). Each item of the 15 questions was coded from 1-5, except those in the erectile function domain (coded 1-6). The index is the summation of items in each domain, which means the maximum value for the erectile function is 36, orgasmic function, 10; sexual desire, 10; intercourse satisfaction, 15, and overall satisfaction, 10.

The statistical tool used was the web-based approach, sent to individuals via WhatsApp broadcasted on all Social Media applications. The following ethical

considerations were utilized in this research: Participants received information regarding the study's objectives. There was no way for each participant to be identified specifically in the study. There was always the opportunity to withdraw from participation. The data were converted from Google Forms into Statistical Packages for the Social Sciences (SPSS) for Windows, Version 29.0. The collection of data was analyzed utilizing SPSS. The data were analyzed using percentages, presented using tables, a pie chart and a bar graph, and a p-value of 5% was used to determine the significance between cross-tabulated variables.

Results and Discussion

Table 2 depicts the demographic characteristics of the 1067 responders and their responses. The questionnaire was distributed to the male population over a short period received 1067 responses altogether. According to *Table 2*, the category Age Cohort with a 25.6 per cent response rate for 273 responses, the majority of respondents were between the ages of 18 and 28. The second-highest responders, with 271 responses and a response rate of 25.4%, were between the ages of 40 and 49. Ages 29 to 39 ranked third with 211 responses at a 19.8% rate. Ages 50 to 60 follow in fourth with 199 replies at a rate of 18.7%. The fifth-ranked age group, 61-70 years old, received 77 replies, with a response rate of 7.2%. The group with the fewest replies, aged 71 and older, had 36 responses, for a response rate of 3.4%. *Table 3* presents the self-reported views of the sampled Jamaican adult male. Of the sampled Jamaican adult male (n=1067), 39.1% of them had some difficulty in having an erection on demand. *Table 4* presents the views of Jamaican adult male on erectile dysfunction and sexual stimulation (orgasm). Of the sampled Jamaican adult male (n=1067), 38.8% of them indicated at most sometimes being able to ejaculate on having sexual intercourse. *Table 5* presents the views of the sampled Jamaican adult male on sexual desire matters. Of the sampled Jamaican adult male (n=1067), 35.5% of them indicated at most sometimes having sexual desire, with 4.1% stating they rarely have sexual desires. *Table 6* presents the views of the sampled Jamaican adult male on sexual satisfaction matters. Of the sampled Jamaican adult male (n=1067), 39.7% of them indicated at most sometimes experiencing satisfaction on having sexual intercourse. *Table 7* presents the views of the sampled Jamaican adult male on their sexual behaviour. Of the sampled Jamaican adult male (n=1067), 16.9% of them indicated different levels of dissatisfaction with having sex with their intimate partner.

Table 2. *Demographic characteristics of sampled respondents (n=1067).*

Details	Frequency [N] (Percentage %)
Ages cohort (years)	
18-28	273 (25.6)
29-39	211 (19.8)
40-49	271 (25.4)
50-60	199 (18.7)
61-70	77 (7.2)
>71	36 (3.4)
Parish of residence	
Kingston and St Andrew	262 (24.6)
St Ann	59 (5.5)
St Mary	45 (4.2)
Portland	32 (3.0)
St Thomas	37 (3.5)
St Catherine	205 (19.2)
Clarendon	97 (9.1)

Manchester	75 (7.0)
St Elizabeth	59 (5.5)
Westmoreland	66 (6.2)
Hanover	27 (2.5)
St James	73 (6.8)
Trelawny	30 (2.8)

Table 3. *Erectile dysfunction matters among Jamaica adult male.*

Details	Frequency [N] (Frequency %)					
	0	1	2	3	4	5
1. How often were you able to get erection during secual activity?	54 (5.1)	61 (5.7)	150 (14.1)	206 (19.3)	266 (24.6)	330 (30.9)
2. When you had erections with sexual stimulations, how often were your erection hard enough for penetration?	53 (5.0)	56 (5.2)	174 (16.3)	206 (19.3)	264 (24.7)	314 (29.4)
3. When you attempted intercourse, how often were you able to penetrate your partner?	60 (5.6)	54 (5.1)	154 (14.1)	213 (20.0)	255 (23.9)	331 (31.0)
4. During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner?	54 (5.1)	65 (6.1)	172 (16.1)	224 (21.0)	241 (22.6)	311 (29.1)
5. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?	58 (5.4)	71 (6.7)	168 (15.7)	178 (16.7)	249 (23.3)	343 (32.1)
6. How do you rate your confidence that you could get and keep an erection?	- -	53 (5.0)	83 (7.8)	303 (28.4)	285 (27.6)	333 (31.2)

Notes: 0=No sexual activity/did not attempt intercourse; 1=Rarely or never/extremely difficult/very low; 2=A few times (less than half the time)/very difficult/low; 3=Sometimes (about half the time)/difficult/moderate; 4=Most times (more than half the time)/slightly difficult/high; 5=Almost always or always/not difficult/very high.

Table 4. *Erectile dysfunction and sexual stimulation (orgasm) matters among Jamaica adult male.*

Details	Frequency [N] (Frequency %)					
	0	1	2	3	4	5
1. When you had secual stimulation or intercourse, how often did you ejaculate?	45 (4.2)	48 (4.5)	157 (14.7)	209 (19.6)	297 (27.8)	311 (29.1)
2. When you had sexual stimulation or intercourse, how often did you have the feeling of orgasm of climax?	- -	61 (5.7)	102 (9.6)	245 (23.0)	350 (32.8)	309 (29.0)

Notes: 0=No sexual stimulation or intercourse; 1=Rarely or never; 2=A few times (less than half the time); 3=Sometimes (about half the time); 4=Most times (more than half the time); 5=Almost always or always.

Table 5. *Sexual desire matters among Jamaican men.*

Details	Frequency [N] (Frequency %)					
	0	1	2	3	4	5
1. How often have you felt sexual desire?	- -	44 (4.1)	92 (8.6)	243 (22.8)	363 (34.0)	325 (30.5
2. How would you rate your level of sexual desire?	- -	49 (4.6)	67 (6.3)	292 (27.4)	348 (32.6)	311 (29.1)

Notes: 1=Rarely or never/very low or none at all; 2=A few times (less than half the time)/low; 3=Sometimes (about half the time)/moderate; 4=Most times (more than half the time)/high; 5=Almost always or always/very high.

Table 6. *Sexual satisfaction matters among Jamaica adult male.*

Details	Frequency [N] (Frequency %)					
	0	1	2	3	4	5
1. How many times have you attempted sexual intercourse?	60 (5.6)	184 (17.2)	185 (17.3)	197 (18.5)	219 (20.5)	222 (20.8)
2. When you attempted sexual intercourse, how often was it satisfactory for you?	57 (5.3)	49 (4.6)	155 (14.5)	220 (20.6)	305 (28.6)	281 (26.3)
3. How much have you enjoyed sexual intercourse?	57 (5.3)	35 (3.3)	135 (12.7)	232 (21.7)	331 (31.0)	277 (26.0)

Notes: 0=No attempts/no intercourse; 1=One to two attempts/rarely or never/no enjoyment at all; 2=Three to four attempts/a few times (less than half the time)/not very enjoyable; 3=Five to six attempts/sometimes (about half the time)/fairly enjoyable; 4=Seven to ten attempts/most times (more than half the time)/highly enjoyable; 5=Eleven or more attempts/almost always or always/very highly enjoyable.

Table 7. *Overall sexual behaviour among Jamaica adult male.*

Details	Frequency [N] (Frequency %)					
	0	1	2	3	4	5
1. How satisfied have you been with your overall sex life?	-	57	95	247	359	309
	-	(5.3)	(8.9)	(23.1)	(33.6)	(29.0)
2. How satisfied have you been with your sexual relationship with your partner?	-	53	127	217	352	318
	-	(5.0)	(11.9)	(20.3)	(33.0)	(29.8)

Notes: 1=Very dissatisfied; 2=Moderately dissatisfied; 3=Equally satisfied & dissatisfied; 4=Moderately satisfied; 5=Very satisfied.

Figure 2 depicts a bar graph showing how well Jamaican men maintained an erection post-COVID-19. Eighty-seven and three-tenths per cent (n=931) of the sampled Jamaican adult male indicated that they were able to maintain an erection. *Figure 3* shows a bar graph depicting how male rated their sexual desires during COVID-19. Of the sampled Jamaican adult male (n=1067), 94.6% (n=1009) of them indicated respondents had moderate to very high sexual desires. *Table 8* presents the descriptive statistics for the 15-question International Index of Erectile Function (IIEF) for Jamaican adult male. The findings revealed that on average Jamaican adult male fall in the normal category for erectile function. However, there were abnormalities in orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction. *Table 9* presents the descriptive statistics for the erectile function of the 15-question International Index of Erectile Function (IIEF) Questionnaire. Based on the interpretation of the scale for erectile function, a score less than 25 indicated abnormal erectile function. This means that 40.8% of Jamaican adult male were experiencing erectile dysfunction. *Figure 4* depicts the mean scores for the erectile function of Jamaican adult male by age group. Using ANOVA, there are statistical differences in the mean erectile function of Jamaican adult male by age group (i.e., $F [5, 1061] = 14.046$, p-value < 0.001). The diagram shows that the erectile functioning of Jamaican adult male generally declines with age. Further differences in mean erectile functioning by age group can be viewed in *Table 10*. *Table 11* presents a Pearson's product-moment correlation among the domains of the 15-question International Index of Erectile Function (IIEF) Questionnaire. The findings revealed that Jamaican adult male who experienced erectile function were like to have challenges in orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction with sexual function.

Table 8. *The descriptive statistical analysis based 15 question international index of erectile function (IIEF) (n=1067).*

Details	Minimum	Maximum	Mean	Sta. Deviation	Abnormal results
Erectile function	6.00	35.00	25.85	7.64	<25
Orgasmic function	2.00	11.00	8.19	2.41	<9
Sexual desire	2.00	10.00	7.54	2.07	<9
Intercourse satisfaction	3.00	18.00	12.83	3.65	<13
Overall satisfaction	2.00	10.00	7.43	2.20	<9

Table 9. *The descriptive statistical analysis based 15 question international index of erectile function (IIEF) questionnaire.*

Score	Frequency (N)	Percentage (%)	Valid percentage	Cumulative percentage
6.00	24	2.2	2.2	2.2
7.00	9	0.8	0.8	3.1
8.00	1	0.1	0.1	3.2
9.00	8	0.7	0.7	3.9
10.00	8	0.7	0.7	4.7
11.00	8	0.7	0.7	5.4
12.00	10	0.9	0.9	6.4
13.00	8	0.7	0.7	7.1
14.00	8	0.7	0.7	7.9
15.00	19	1.8	1.8	9.7
16.00	16	1.5	1.5	11.2
17.00	34	3.2	3.2	14.3
18.00	43	4.0	4.0	18.4
19.00	31	2.9	2.9	21.3
20.00	30	2.8	2.8	24.1
21.00	35	3.3	3.3	27.4
22.00	35	3.3	3.3	30.6
23.00	67	6.3	6.3	36.9
24.00	41	3.8	3.8	40.8
25.00	47	4.4	4.4	45.2
26.00	36	3.4	3.4	48.5
27.00	33	3.1	3.1	51.6
28.00	38	3.6	3.6	55.2
29.00	102	9.6	9.6	64.8
30.00	38	3.6	3.6	68.3
31.00	36	3.4	3.4	71.7
32.00	22	2.1	2.1	73.8
33.00	29	2.7	2.7	76.5
34.00	52	4.9	4.9	81.3
35.00	199	18.7	18.7	100.0
Total	1067	100.0	100.0	-

Table 10. *Multiple comparisons of erectile function by age groups.*

Age group by years (a)	Age group by years (different level) (b)	Mean difference [between (a)-(b)]	Std. Error	p-value	95% confidence interval	
					Lower	Upper
18-28	29-39	2.03134*	.68023	.034	.0893	3.9733
	39-49	3.40252*	.63634	<.001	1.5858	5.2192
	50-60	3.62873*	.96170	<.001	1.6540	5.6035
	61-70	6.37995*	.95755	<.001	3.6462	9.1137
	>71	6.20788*	1.31583	<.001	2.4513	9.9645
29-39	18-28	-2.03134*	.68023	.034	-3.9733	-.0893
	39-49	1.37119	.68132	.336	-.5739	3.3163
	50-60	1.59739	.73329	.249	-.4961	3.6909
	61-70	4.34862*	.98801	<.001	1.5279	7.1693
	>71	4.17654*	1.33816	.023	.3562	7.9969
39-49	18-28	-3.40252*	.63634	<.001	-5.2192	-1.5858
	29-39	-1.37119	.68132	.336	-3.3163	.5739
	50-60	.22620	.69277	1.000	-1.7516	2.2040
	61-70	2.97743*	.95832	.024	.2415	5.7134
	>71	2.80535	1.31639	.272	-.9529	6.5636
50-60	18-28	-3.62873*	.69170	<.001	-5.6035	-1.6540
	29-39	-1.59739	.73329	.249	-3.6909	.4961
	39-49	-.22620	.69277	1.000	-2.2040	1.7516
	61-70	2.75122	.99595	.064	-.0921	5.5946
	>71	2.57915	1.34403	.391	-1.2580	6.4163
61-70	18-28	-6.37995*	.95755	<.001	-9.1137	-3.6462
	29-39	-4.34862*	.98801	<.001	-7.1693	-1.5279
	39-49	-2.97743*	.95832	.024	-5.7134	-.2415
	50-60	-2.75122	.99595	.064	-5.5946	.0921
	>71	-.17208	1.49829	1.000	-4.4496	4.1054
71 and above	18-28	-6.20788*	1.31583	<.001	-9.9645	4.1054
	29-39	-4.17654*	1.33816	.023	-7.9969	-.3562
	39-49	-2.80535	1.31639	.272	-6.5636	.9529
	50-60	-.257915	1.34403	.391	-6.4163	1.2580
	61-70	.17208	1.49829	1.000	-4.1054	4.4496

*Notes: * means the difference is significant at the 0.05 level.*

Table 11. *Pearson product-moment correlation among the domains of 15 question international index of erectile function (IIEF) questionnaire.*

		Erectile function	Orgasmic function	Sexual desire	Intercourse satisfaction	Overall satisfaction
Erectile function	Pearson correlation	1	.818**	.766**	.816**	.780**
	Sig. (2-tailed)	-	<0.001	<0.001	<0.001	<0.001
	N	1067	1067	1067	1067	1067
Orgasmic function	Pearson correlation	.818**	1	.783**	.764**	.767**
	Sig. (2-tailed)	<0.001	-	<0.001	<0.001	<0.001
	N	1067	1067	1067	1067	1067
Sexual desire	Pearson correlation	.766**	.783**	1	.680**	.778**
	Sig. (2-tailed)	<0.001	<0.001	-	<0.001	<0.001
	N	1067	1067	1067	1067	1067
Intercourse satisfaction	Pearson correlation	.816**	.764**	.680**	1	.713**
	Sig. (2-tailed)	<0.001	<0.001	<0.001	-	<0.001
	N	1067	1067	1067	1067	1067
Overall satisfaction	Pearson correlation	.780**	.767**	.778**	.713**	1
	Sig. (2-tailed)	<0.001	<0.001	<0.001	<0.001	-
	N	1067	1067	1067	1067	1067

*Notes: ** means correlation is significant at the 0.01 level (2-tailed).*

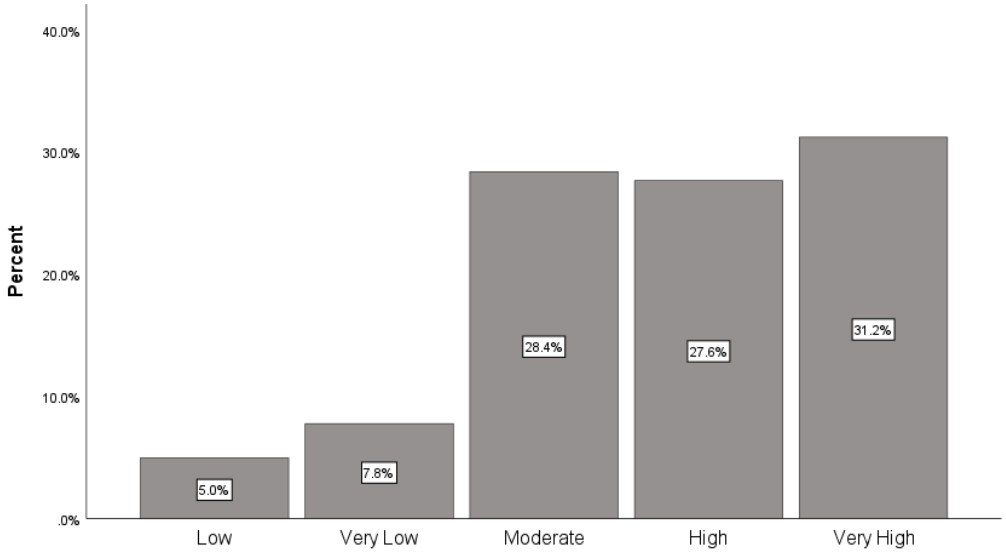

Figure 2. *Erectile function.*

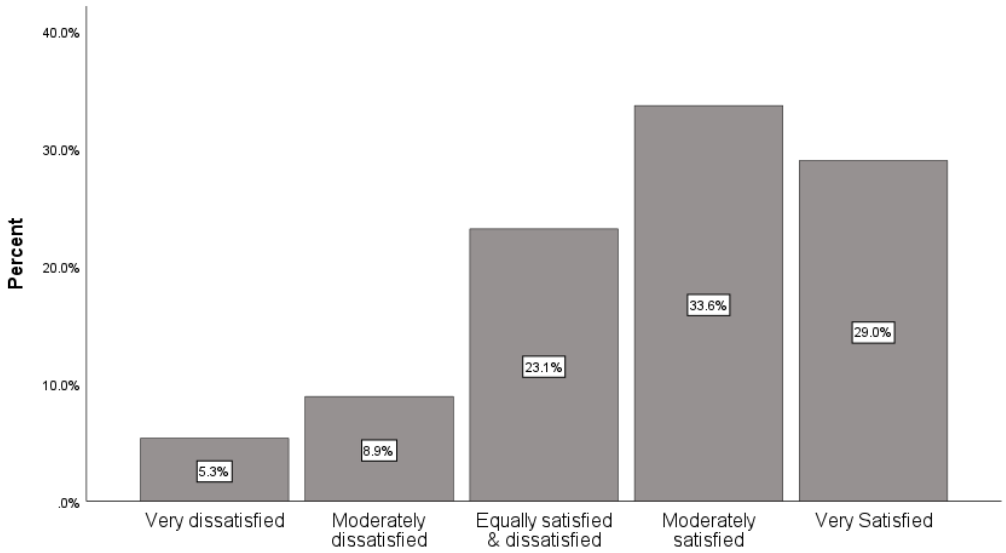

Figure 3. *Degree of sexual desires.*

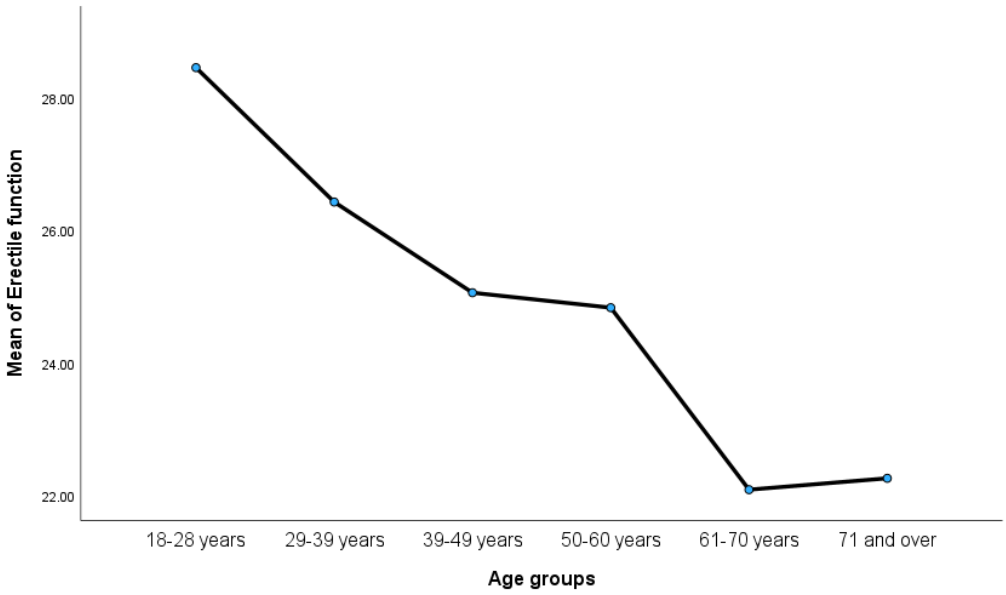

Figure 4. *Erectile function by ages groups.*

People have undergone many challenging experiences during the COVID-19 pandemic including a reduction in income, unemployment, social isolation, lockdown, and loss of a loved one, which has negative psychological consequences (Levacher et al., 2023; Alqahtani et al., 2022; Kamble et al., 2022; Torrens-Burton et al., 2022; Bourne et al., 2021a; Pew Research Center, 2021; Pietrabissa and Simpson, 2020). One of the negative consequences of the COVID-19 pandemic is its influence on sexual behaviour (Arafat et al., 2020; Bourne et al., 2021b). Arafat et al. (2020) found that "45% of the respondents reported that the lockdown had some impact on their sexual life. After the start of [the] lockdown, 72.5% of the respondents reported having sexual intercourse 1 to 5 times a week. 50% of respondents reported having positive changes in their emotional bonding due to the lockdown". Bourne et al. (2021a; 2021b) have

extensively examined the relationship between the COVID-19 pandemic and the psychological well-being and sexual behaviour of Jamaicans; but no study emerged that evaluates whether Jamaican adult male were experiencing post-COVID-19 sexual dysfunctions. The current study assesses the sexual dysfunction experienced among Jamaican adult male post-COVID-19 pandemic.

Men who are predisposed to erectile dysfunction are more at risk of developing sexual dysfunction (Masoudi et al., 2022). According to Masoudi et al. (2022), "The results of the present study showed that COVID-19 related restrictions were correlated with higher rates of sexual dysfunction and reduced sexual activity; however, results of the current meta-analytical study show that this change in sexual functioning was greater in women compared to men". The reality is, the measures introduced to mitigate COVID-19 as well as the virus have a negative psychological effect on people, which expresses itself in sexual dysfunction. COVID-19 influenced people's psychological well-being (Bourne et al., 2021a; Villani et al., 2021), indicating that there is a mental health aspect which developed as a result of the COVID-19 pandemic (WHO, 2023; 2022a). The WHO wrote, "Fear, worry, and stress are normal responses to perceived or real threats, and at times when we are faced with uncertainty or the unknown. So it is normal and understandable that people are experiencing fear in the context of the COVID-19 pandemic".

Anxiety, depression, fear, happiness, sadness, worry, and stress are just some of the mental health issues that have increased during and post-COVID-19 (WHO, 2022b). The WHO (2022b) reported that "In the first year of the COVID-19 pandemic, [the] global prevalence of anxiety and depression increased by a massive 25%, according to a scientific brief released by the World Health Organization (WHO) today." Mental health is an important factor that influences sexual dysfunction, according to Henry Ford Health (2022) stated "The link between COVID-19 and erectile dysfunction", psychosomatic factors could contribute to erectile dysfunction. When someone has COVID-19, they may feel worn out and perhaps depressed, which could affect their ability to get and keep an erection". Stress, worry, and sadness brought on by COVID-19 can also influence sexual health and may even result in erectile dysfunction. In addition to erectile dysfunction, sexual dysfunction also includes a lack of or a reduction in sexual desire. Living through a pandemic and being confined at home during the COVID-19 pandemic may exacerbate any sexual dysfunction and cause an imbalance that makes sexual desire worse (Masoudi et al., 2022). The unanswered question in the sexual behaviour and COVID-19 discourse is 'What are Jamaican adult male who are experiencing sexual dysfunctions post-COVID-19?'

Sreenivas (2021) wrote, "Researchers continue to learn more about COVID-19's long-term impact on our bodies. Now they're looking into the link between the virus and erectile dysfunction (ED). That's when a person has a hard time getting or keeping their penis firm enough to have sex" and the current study is one such scientific inquiry. This study consists of 1067 Jamaican adult male ages18+ years. It should be noted, however, that 64.5% of Jamaican adult male had sexual desire. Of the Jamaican adult male, 30.9% were not able to have an erectile, 39.1% had some degree of challenges sexual challenge, 38.2% were unable to maintain an erection to complete the sexual encounter, and 59.1% indicated being at least most confident of having and maintaining an erection. Forty-one per cent of the sampled Jamaican adult male indicated having had some challenges maintaining an erection for penetration.

In addition, 40.8% of Jamaican adult male were experiencing erectile dysfunction. Erectile dysfunction among Jamaican adult male is higher than in many nations including the United States (Henry Ford Health, 2022; Levesque, 2021). Levesque (2021) wrote, "In combing through data from UF Health patients, the study found 146 patients who were diagnosed with ED after a bout of COVID-19, or 4.7% of all the men who were diagnosed with COVID-19." Henry Ford Health (2022) reported an increase of 20% in erectile dysfunction among American men during the COVID-19 pandemic (Deibert, 2022). The erectile dysfunction experienced by Jamaican adult male, therefore, may be attributed to COVID-19 infection. According to Kaynar et al. (2022), "COVID-19 infection could affect male sexual function through endothelial damage in erectile tissue, testicular damage, and psychological alterations". Chu et al. (2022) support the medical evidence that COVID-19 has a negative influence on erectile dysfunction among men, which offers some explanation for the high rate of erectile dysfunction found in this study.

The mental health challenges experienced by some Jamaican adult male can be deduced from the current findings. This research found that only 29.0% of Jamaican adult male were very satisfied with their overall sex life and 33.6% were moderately satisfied with their overall sex life. In response to the question, 'how satisfied you been with your sexual relationship with your partner?' 29.8% of the sampled Jamaican adult male indicated being very satisfied and 33.0% said moderately satisfied. In addition, the current findings found that there is a strong direct relationship among the various sexual domains. It can be deduced from Pearson's product-moment correlations that Jamaican adult male who experienced erectile dysfunction would experience orgasmic dysfunction, low sexual desire, intercourse satisfaction dysfunction, overall sexual dissatisfaction, and vice versa. Another question that can be used to deduce the mental health challenges of some Jamaican adult male is "how much have you enjoyed sexual intercourse?' Some 16.0% of current respondents indicated that they do not enjoy their sexual encounters.

Conclusion

Erectile dysfunction is relatively high among Jamaican adult male compared to male in other societies. Jamaican adult male are experiencing immense psychological stressors during the post-COVID-19 era, and the current study provides some rationale for instituting counselling for male. This study is recommending research in the areas of psychosocial conditions that would explain erectile dysfunctions among Jamaican adult male post-COVID-19.

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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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