

The Moderating Role of Coping Strategies in Social Isolation and Internet Addiction amid Covid-19 Pandemic

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Abstract

The study investigated the moderating role of coping strategies in social isolation and internet addiction during the COVID-19 pandemic lockdown. A total of 425 participants selected among residents of central quarters and through WhatsApp groups were used as samples for the study. The participants were between the ages of 25-35 years with a mean age of 38 years. Three instruments were used in the study are Brief Cope Inventory, the Internet Addiction Test and Social Network Scale. Three hypotheses were formulated. An ex-post facto/Survey research design was adopted while hierarchical regression statistics was adopted to test the hypothesis. Findings show a surge in internet addiction $X = 60.1$; Social isolation has a significant relationship with internet addiction during the COVID-19 pandemic lockdown ($\beta = .900, p < .001$); Coping strategies have no relationship with internet addiction during the COVID-19 pandemic lockdown ($\beta = .012, p > .05$); Coping strategies has no significant relationship with social isolation during the COVID 19 pandemic lockdown $r = .046, P > .05$. Findings were discussed in relation with the literature review. Suggestions for further studies were also made.

Keywords: Coping Strategies, Social Isolation, Internet Addiction and COVID-19 Pandemic.

Introduction

At the end of 2019, Wuhan an emerging business hub of China experienced an outbreak of an epidemic (novel corona virus) which started in the Hunan seafood market in Wuhan where live animals such as bats, frogs, snakes, birds, marmots and rabbits are sold. It killed more than one thousand, eight hundred people and infected over seventy thousand individuals within the first fifty days. In December 2019, the Chinese government informed the World Health Organization (WHO) about several cases of pneumonia with unfamiliar a etiology. By 12th January 2020, the National Health Commission of China released further details about the epidemic, suggesting viral pneumonia. From the sequence-based analysis of isolates from the patients, they identified the virus as a novel corona virus. The International Committee on Taxonomy of Viruses (ICTV) named the virus Severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) and the disease Corona virus disease 2019 (COVID-19) (Adnan Shereen, Khan et al. 2020). The severe acute respiratory syndrome corona virus (SARS-CoV-2), avian flu and swine flu cause acute lung injury (ALI) and acute respiratory distress syndrome (ARDS) which lead to pulmonary failure and result in fatality. (Adrian et al. 2012)

The human-to-human spreading of the virus occurs due to close contact with an infected person exposed to coughing, sneezing, respiratory droplets or aerosols. These aerosols can

penetrate the human body (lungs) via inhalation through the mouth, eyes or nose.

However, this situation is worrying for adults who could not go about their daily life of providing for their families and who may experience greater mental health effects as it deprived them of external social contacts for a longer period. Social isolation and mental health issues also affected children and older adults too. Anxiety and apathy, as well as loneliness, are some of the mental health consequences that will persist long after the pandemic ends, while the increased feelings of depression and stress, especially during a time of uncertainty, may have serious impacts on public health, increasing people's vulnerability to poor health, and weakening society.

However, against the backdrop of this alarming pandemic, this brings to light this pertinent concern of social isolation and people clinging to the internet resulting in internet addiction. Amid the pandemic and subsequent nationwide lockdown, there had been a surge in internet usage which reflects social response worldwide (Singh, Dixit, Joshi, 2020). For instance, there were 85.49 million internet users in Nigeria in January 2020. Currently, the number has risen to 96.05 million in September 2020. The number of internet users in Nigeria increased by 2.2 million (+2.6%) between 2019 (83.95 million) and January 2020 (85.49 million). Internet penetration in Nigeria stood at 42% in January 2020 (Kemp, 2020). On a population penetration of 170.2 million people, Nigeria's internet penetration ratio was put at 26.5%. The data revealed that 29.0% of the respondents showed mild internet addiction, 20.0% showed moderate internet addiction, and 10.2% had severe internet addiction (Okwaraji, Aguwa, & Shiweobi-Eze, 2015). In India, 87% of people reported an increase in their usage of the internet during the pandemic with 75% spending an increasing amount of time on Facebook, Twitter and WhatsApp (Hammerkopf, 2020).

Considering its widespread use across ages, we know social media to be a source of social reinforcement and validation. This platform provides people with an opportunity to share ideas, interact socially, form relationships, draw the attention of others and create a social image (Singh, 2014).

Mobile devices with Internet connectivity have become part of modern life and resulted in a large increase in online activities. Problematic Internet use has a potentially huge impact on individuals' well-being. It can create social disturbances and clinical issues, leading problematic users to experience academic, relational, financial, and occupational impairment and physical health problems in daily life (Wallace, 2014). Other pathological uses of the Internet fall into various diagnostic categories, such as sexual dysfunction and gambling disorder, based on the resulting behaviour. The mental health aspect of COVID-19 is not limited to affected persons, their families and the healthcare force but embrace society's response at large (Singh, 2016). There seem to be generic factors underlying the diversity of problematic Internet behaviours (Young, 1998).

Laconi et al (2014) reviewed 45 assessment tools relating to problematic Internet use or addiction. Despite discrepancies in the definition and factor structures of the tools, two common factors emerged, namely negative outcomes and compulsive use (Wallace, 2014). These two factors align closely with recent neurological studies showing that excessive

Internet use shares similar neurobiological mechanisms with substance and behavioural addiction, which might be related to dysfunctional impulse control (Yuen, & Lavin, 2004). A problematic use of the Internet has been identified in several studies and shows that persistent negative consequences such as job loss, academic failure, and divorce result from excessive Internet use (Griffiths, 2000, Weinstein & Lejoyeux, 2010).

The clinical relevance of this phenomenon gains its importance against the background of the COVID-19 pandemic. During the current global crisis when physical distancing, social isolation and quarantine have become a norm, over-engagement in social media has become a psychological necessity helping people to address their needs for human interaction and to cope with the pandemic. Despite the precautionary guidelines of physical distancing, social media provide people with a platform to remain socially connected and universalize distress caused by the current crisis. Apart from socialization, the internet is also being used for academic and work-related purposes like conducting online lectures, webinars, and meetings and ensuring work from home. (Singh et al. 2020)

According to Griffiths (2000), "Internet addiction disorder (IAD) is an addictive behaviour characterized by behavioural dominance, mood alteration, tolerance, abstinence and conflicts"

Stay-at-home mandates, physical distancing and quarantines related to the corona virus (COVID-19) pandemic have led to increased participation in internet activities to promote socialization and stress reduction.

Although the internet can be a healthy coping strategy for the majority, it can also pose risks to some vulnerable individuals. Protracted periods of social isolation and technology-based activity pose the danger of solidifying unhealthy lifestyle patterns, leading to difficulties in re-adaptation when the COVID-19 crisis has passed. Balanced and effective coping strategies for internet use during the COVID-19 pandemic are needed to support physical and psychological well-being. (Zaharieva, 2020).

Thus, coping is the ability to manage a threatening, challenging or potentially harmful situation and is crucial for our well-being. Coping can buffer or exacerbate the effect of stress on mental and physical health and functioning as well as directly shape the development of psychopathology and resilience (Townsend & Andrews, 2019)

Coping mechanism refers to the psychological patterns that individuals use to manage thoughts, feelings and actions encountered during various changes of ill health, treatment or life changes. It is a basic process integral to adaptation and survival. It depicts how people detect, appraise, deal with, and learn from stressful encounters (Skinner, Zimmer-Gembeck, 2016). Coping strategies are many and varied as the stressors that precede them. Coping responses are infinite, but can be categorized mainly as problem-focused and emotion-focused coping (Servidio, Gentile, & Boca, (2018).

Emotion-focused coping is a type of stress management that attempts to reduce negative emotional responses that occur due to exposure to stressors.

Negative emotions such as fear, anxiety, aggression, depression, and humiliation are reduced or removed by the individual by various methods of coping. Emotion-focused

coping can be positive or negative. Positive examples include talking or writing about their emotions through therapy or journaling, mindful meditation, or distraction with other activities. Negative examples of emotion-focused coping (that typically are not beneficial in the long term) are suppression of emotions, avoidance, and alcohol or drug used to dull or avoid emotions.

Problem-focused coping is that kind of coping aimed at resolving a stressful situation or event or altering the source of the stress. Coping strategies that can be considered problem-focused include but are not limited to taking control of the stress (e.g., problem-solving or removing the source of the stress), seeking information or help in handling the situation and removing oneself from the stressful situation (Servidio, Gentile, & Boca, (2018).

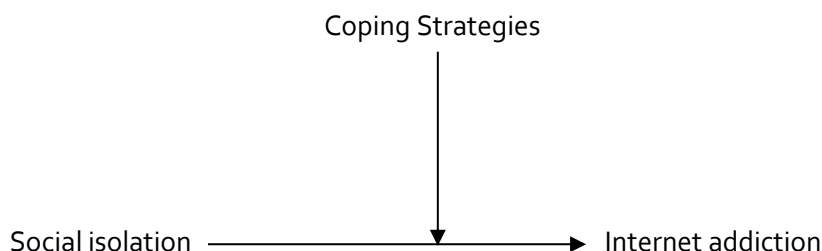
In explaining further, Servidio, Gentile, and Boca, (2018) said that problem-focused coping is distinguished from emotion-focused coping, which is aimed at managing the emotions associated with the situation, rather than changing the situation itself. For example, when anxious about an upcoming exam, the use of problem-focused coping strategies might involve checking with the teacher about material one is unsure of, increasing the studying time, or even deciding not to take the exam (although removing oneself from the stressor might have other negative consequences,(Servidio, Gentile, & Boca, (2018).

Few researchers have explored the role that coping strategies may play in predicting the risk of Internet addiction (Deatherage, Servaty-Seib, & Aksoz 2014; McNicol & Thorsteinsson, 2017). The results of these studies point out that Internet Addiction Disorder is systematically linked to avoidance coping, a way of coping that is characterized by the effort to avoid dealing with a stressor.

Cyberspace may represent a place to hide when things go wrong. In this sense, accessing the Internet can be considered a negative coping strategy in facing stressful events. Excessive use of such a strategy may cause new forms of technology addiction when individuals, in the desire to escape from reality, completely avoid the source of stress (Tang et al., 2014). The results of a recent integrative review show that personal dispositional coping style predicts problematic computer use in adolescence (Trnka, Martínková, & Tavel, 2016). Most of the present studies, in addition, focus on the predictors of the risk of Internet addiction, thus leaving unexplored variables that might mediate this relationship. The present study aims to fill this gap by testing the mediating effects that coping strategies will have on the relationship between social isolation and Internet addiction.

In line with the above assertion, one could say that a relationship may exist between social isolation and internet addiction amid the pandemic and coping may moderate an individual's reaction towards the global crisis. The individual's cognitive evaluation of the event influences the choice of coping strategies, termed secondary evaluation, which involves estimating the resources available and the most effective strategies to deal with the situation (Lazarus & Folkman, 1984). This present study is looking at the relationship between social isolation and internet addiction because of the pandemic and the moderating role of coping strategies.

Conceptual Framework



According to the diagram, coping strategy is the moderator, social isolation is the predictor variable whereas internet addiction is the criterion variable.

Theoretical Framework

Of all the above-stated theories, we adopted the use and gratification theory as the theoretical framework for this study. It can explain the moderating role of coping with social isolation and internet addiction. For instance, in the ongoing scenario of physical isolation and quarantine as a precautionary measure by the World health organization to curb the spread of the COVID-19 pandemic, people seek gratification from the Internet to meet their various needs. Internet and mobile phones have become a source of media that tries to fulfill not only mass communication needs but also interpersonal needs like interaction and emotional involvement. People can use the internet to text, call, talk with photos or with videos, entertain, educate, work, and advertise goods and services (Tanta, Mihovilić, Sablić – Medijska, & Znanstveno, 2014).

Internet addiction could result from excessive use of social media as a coping strategy for social distancing (isolation) during the COVID-19 pandemic.

Statement of Problems

The pressure of work is increasing at a faster rate, mainly because of worldwide competition, globalization, and new technological innovation, which affects all the employees in the world, Bharatai & Newman (1978). This, together with over-engagement in social media, internet games, Webinar and other online activities make up internet addiction in this global crisis. To compound matters, this havoc comes when we face stress during an infectious disease outbreak. Healthily coping with stress will make you, the people you care about, and your community stronger (NCDC; 2020)

However, everyone reacts differently to stressful situations. How you respond to stress during the COVID-19 pandemic can depend on your background, social support from family or friends, cognitive ability, financial situation, health and emotional background, the community you live in, and many other factors. The changes that can happen because of the COVID-19 pandemic and the ways we try to contain the spread of the virus can affect anyone. (Bavel, Baiker, Boggio, Capraro, Cichoka, & Cikara 2020)

Socially isolated people are among those who may respond more negatively to the stress of the pandemic (NCDC; 2020). Coping is an important part of overall health and well-being.

It affects how we think, feel, and act. It may also affect how we handle stress, relate to others, and make choices during an emergency. (Bruce, 2015)

In this present study, coping strategy serves as a moderator. The study seeks to establish the moderating role of coping strategies in the relationship between social isolation and internet addiction amid the COVID-19 pandemic. Therefore, the purpose of this study was to investigate whether coping strategies will moderate the relationship between social isolation and internet addiction amid the COVID-19 pandemic. These objectives motivated the study:

1. To determine if there will be a surge in internet addiction amid the COVID-19 pandemic.
2. To determine the relationship between social isolation and internet addiction amid the COVID-19 pandemic.
3. To determine the relationship between coping strategies and internet addiction amid the COVID-19 pandemic.
4. To determine the relationship between coping strategies and social isolation amid the COVID-19 pandemic.

We hypothesized it:

1. There will be a surge in internet addiction amid the COVID-19 pandemic
2. There will be a significant relationship between social isolation and internet addiction amid the COVID-19 pandemic.
3. There will be a significant relationship between coping strategies and internet addiction amid the COVID-19 pandemic.
4. There will be a significant relationship between social isolation and coping strategy amid the COVID-19 pandemic.

Methods

Participants

We used 425 participants as a sample for this study. The participants were selected among the population of residents of central bank Quarters Lagos state. Out of the 425 participants used in this study, 275 were females while 150 were males. The participants were between the age ranges of 25-55 years with a mean age of 38 years and a standard deviation of 4 years. Occupational status showed that 45 were traders 55 were artisans' while 325 were Civil servants. Educationally, 55 were senior school certificate holders; National diploma is 33, Higher National Diploma 107, Bachelor of Science/Education 155, and Master of Science/Business Administration 75. The participants were made up of 125 Yoruba, Ibos were 90 Hausa 87 others 113. The participants were selected using both Purposive and convenience sampling techniques. This is because only those who experienced the COVID-19 pandemic lockdown, who were also available during the study and agreed to participate, were used. Each of the participants has one or more Android phone(s).

Instruments

Three instruments were used in this study and they are:

1. Brief COPING inventory (Carver, 1997)
2. Internet Addiction Test (TAT) (Young, 1998)
3. Social Network Scale (Lubben, & Gironde, 1988)

(1) The Brief COPING Inventory (Carver1997),

The brief COPING Inventory (Carver, 1997), is a 28 items multidimensional measure of strategies for coping or regulating cognition in response to stressors. This abbreviated inventory (based on the complete 60-item COPING Inventory) is comprised of items that assess the frequency with which a person uses different coping strategies (emotion-focused and problem-focused). The inventory is a list of statements that participants review and score. There are two main components to the COPING inventory: problem-focused coping and emotion-focused coping. The two components were summarized into five components each.

Problem-Focused

1. Active coping
2. Planning
3. Suppression of competing activities
4. Restraint Coping
5. Seeking of Instrumental Social Support.

Example of a statement from problem-focused include; *"I concentrate my efforts on doing something about it and I take additional action to try to get rid of the problem"*.

Emotion Focused

1. Seeking of Emotional Social Support
2. Positive Reinterpretation
3. Acceptance
4. Denial
5. Turning to Religion.

Examples of statement emotion focused include; *"I discuss my feeling with someone and I seek God's help."*

Scoring

To score the COPE Inventory, you need to first respond to each of the statements with a score from 1 to 4, as follows:

1 = I usually don't do this at all. 2 = I usually do this a little bit. 3 = I usually do this a medium amount. 4 = I usually do this a lot.

Each statement in the inventory is then connected to a specific coping strategy that sits under either the problem-focused, emotion-focused, or coping response measures. Your scores will inform you which form of coping strategy you are more engaged in.

Reliability and Validity of the Instrument

The results of confirmatory factor analyses revealed, as in the original studies, a 14-factor structure of the Brief-COPE. These dimensions showed adequate internal structure and consistency. To further validate the instrument, a pilot study was carried out by the researcher using 60 participants' 35 females and 25 males. The participants were selected among the population of Ikeja residents in Lagos State. Data collected yielded a split-half reliability of .61 and a full-scale reliability of .89 $P < .01$ level of significance

(2) Internet Addiction Test (TAT) Young (1998)

The Internet Addiction Test (TAT) Young (1998) is a 20-item scale that measures the presence and severity of internet dependency among adults. It measures the severity of self-reported compulsive use of the internet for adults and adolescents. The scale was created by adopting DSM criteria for pathological gambling and is a modification of the earlier 8 items scale Young Internet Addiction Diagnostic Questionnaire (IADQ). The IAT views internet addiction as an impulse-control disorder and the term internet refers to all types of online activity. The IAT is the most widely used internet addiction scale and the test has been translated into several languages including English, French, Italian, Turkish and Korean.

Scoring

The IAT total score is the sum of the ratings given by the examinee for the 20-item responses. Each item is rated on a 5-point scale ranging from 0 to 5. The maximum score is 100 points. The IAT total score ranges, with the higher score representing the higher level of severity of Internet compulsivity and addiction. Total scores that range from 0 to 30 points are considered to reflect a normal level of Internet usage; scores of 31 to 49 indicate the presence of a mild level of Internet addiction; 50 to 79 reflect the presence of a moderate level; and scores of 80 to 100 indicate a severe dependence upon the Internet.

Reliability/validity

To further validate the instrument in Nigeria, the researcher carried out a pilot study using a total of 60 participants 35 females and 25 males. The participants were selected among the population of Ikeja residents in Lagos State. Data collected yielded a split-half reliability of .52 and a full-scale reliability of .86 $P < .01$ level of significance.

(3) Social Network Scale by Lubben and Gironde, (1988)

The Social Network Scale by Lubben and Gironde, (1988) is a 12-item self-report social engagement including family and friends. It is designed to measure an individual level of

social engagement. It is used to examine one's level of social isolation. When an individual is not socially engaged, he/she will be socially isolated. The items in the questionnaire were worded positively with different 5 response options ranging from none to nine or more as well as never to always. Out of the 12 items, 6 items each were designed to measure individual social engagement with family and friends. A least possible score of 0 and a highest possible score of 72 could be obtained by a participant. However, scores between 0-24 show low social engagement/ high social isolation while a score between 25-72 indicates high social engagement/low social isolation.

Reliability/Validity of the instrument

Lubben and Gironde, (1988) obtain internal reliability of .70 $P < .01$ by correlating the questionnaire with mortality, all case hospitalization, health behaviours, depressive symptoms and overall physical health. The researcher also got a Cronbach Alpha coefficient of .67 $P < .01$ using a Nigeria sample of 35 females and 25 males selected among residents of Ikeja Lagos State.

Procedure

Because the target populations of this study were people who experienced total lockdown during the COVID-19 pandemic era of 2020. The researchers selected a locality believed to have experienced a higher level of lockdown during the pandemic in Nigeria. Based on this, residents of Central Bank Quarters, Lagos were chosen. We used both Purposive and convenience sampling techniques as sampling techniques. This is because only those who experienced the COVID-19 pandemic lockdown, who were also available during the study and agreed to participate, were used.

The participants were approached in their homes after work on workdays as well as Saturdays and Sundays. However, two research assistants were hired and trained by the researchers. Individual administration of the questionnaire was done by the researchers and their research assistants. Before the administration of the questionnaire, the researchers introduce themselves and their purpose, generating rapport and confidentiality. Participants were asked to respond to the questionnaires as they applied to them during the era of the COVID-19 lockdown (April 2020–August 2020). Though there was no time limit, Participants responded to the items and handed them over to the researchers. This exercise took the researchers and their research-assistants one month.

However, out of 495 persons that were visited, 435 agreed and took part; finally, only 425 participants correctly filled and submitted their questionnaires which were used for data analysis while 10 questionnaires were discarded on the ground of wrong filling.

Design/ Statistics

Because the lockdown era of the COVID-19 Pandemic happened about three months before this study, and the participants were asked to recall their behaviours during that period regarding coping strategies, social isolation and internet addiction thus, Ex-post

facto/Survey research design was adopted. However, to find out the moderating role of coping strategies in the relationship between social isolation and internet addiction amid the COVID-19 Pandemic lockdown, a hierarchical regression statistic was adopted.

Results

Table 1: Summary table of descriptive statistics on the moderating role of coping strategy on social isolation and internet addiction amid COVID 19 pandemic lockdown

SOCIAL ISOLATION	COPING STRATEGY	Mean	Std. Deviation	N
LOW ISOLATION	EMOTION FOCUSED	34.1186	7.79497	59
	PROBLEM FOCUSED	35.4310	8.20165	58
	Total	34.7692	7.99179	117
HIGH ISOLATION	EMOTION FOCUSED	76.3116	9.16181	138
	PROBLEM FOCUSED	74.1377	9.01933	167
	Total	75.1213	9.13360	305
Total	EMOTION FOCUSED	63.6751	21.26140	197
	PROBLEM FOCUSED	64.1600	19.11365	225
	Total	63.9336	20.12196	422
	GRAND TOTAL	60.1	12.4	425

From Table One above, highly socially isolated individuals with emotion-focused coping strategies obtained the highest mean of 76.3 on internet addiction followed by their counterparts (those with high social isolation but adopted problem-focused coping strategy) with a mean of 74.5. In addition, those who experienced low social isolation but adopted a problem-focused coping strategy had a mean of 35.4 on internet addiction while their colleagues with the same low social isolation but with emotion-focused coping strategy scored a mean of 34.1.

The table also revealed that participants who adopted an emotion-focused coping strategy and those who adopted a problem-focused strategy irrespective of their social isolation experience scored a high mean of 63.6 and 64.1 on internet addiction respectively.

On the contrary, those who experienced low social isolation irrespective of the coping strategy engaged in normal internet usage ($X = 34.7$) while their colleagues with high social isolation experience irrespective of coping strategy engaged in severe internet addiction ($X = 75.1$).

This shows that coping strategy played no significant role in the relationship between social isolation and internet addiction during the COVID-19 pandemic lockdown.

However, with a grand mean of 60.1 (moderate internet addiction), it is obvious that the hypothesis which stated that there will be no surge in internet addiction during the COVID-19 pandemic lockdown is hereby rejected. In other words, there is a surge in internet addiction during the COVID-19 pandemic lockdown. This means that many individuals

engaged more in internet usage and became addicted to it during the COVID-19 pandemic lockdown (Madike, 2021)

Table 2: Interco-relational (correlation matrix) table of moderating variable (coping strategy), independent variable (social isolation) and dependent variable (internet addiction)

Variables	Internet addiction	Coping Strategy	Social Isolation
Internet addiction	1		
Coping Strategy	.012	1	
Social Isolation	.899**	.046	1

** P<.01, *P<.05

The correlation table reveals that moderating variable, coping strategy has no significant correlation with internet addiction ($r = .012$, $P > .05$). There was also no significant relationship between the moderating variables (coping strategy) and independent variable (social isolation): $r = .046$, $P > .05$. There is a significant positive relationship between social isolation and internet addiction ($r = .899$, $P < .001$) (Madike, 2021).

Table 3: Model summary table of the moderating variable, independent variable and dependent variable.

Model	R	R square	Adjusted R square	Std. error	Change statistics				
					R square change	F change	df1	df2	Sig
1	.012a	.010	-.002	20.444	.010	.061	1	420	.805
2	.899b	.809	.808	8.8231	.809	1770.35	1	419	.000

a. Predictors: (Constant), Coping Strategy

b. Predictors: (Constant), Coping Strategy, Social Isolation.

The results of the regression analysis, as presented in Table three, shows that the moderating variable coping strategy accounts for 1% (R^2 change) variance in internet addiction which is not significant (F change (1,420) = .061, $P > .05$). In the second hierarchical regression model, the predictors, Social isolation accounted for 80.9% (R^2 change) variance

increase in internet addiction which is significant (F change (1,419) = 1770.35, $P < .001$) (Madike, 2021).

Table 4: Summary table of Hierarchical Regression on the Moderating role of coping strategy on social isolation and internet addiction amid COVID 19 pandemic Lockdown. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	63.190	3.169		19.940	.000
	COPING STRATEGY	.485	1.966	.012	.247	.805
2	(Constant)	-3.849	2.113		-1.821	.069
	COPING STRATEGY	-1.201	.862	-.030	-1.394	.164
	SOCIAL ISOLATION	40.414	.961	.900	42.076	.000

a. Dependent Variable: INTERNET ADDICTION

Table 4 (coefficient table) reveals that in the regression equation in the 1st hierarchical model, the moderating variable coping strategy was not related to the criterion ($\beta = .012$, $P > .05$). In the 2nd hierarchical model, social isolation showed predictions of internet addiction ($\beta = .900$, $P < .001$) (Madike, 2021).

Summary of Findings

1. The finding showed a surge in internet usage during the COVID-19 pandemic lockdown ($X = 60.1$)
2. In the result, the coping strategy showed no significant prediction of internet addiction ($\beta = .012$, $P > .05$). This suggests that either emotion-focused or problem-focused coping strategy predicted internet addiction during the COVID-19 pandemic lockdown.
3. Social isolation showed significant and positive prediction to internet addiction during the COVID-19 pandemic lockdown ($\beta = .900$, $P < .001$). This suggests that social isolation has a significant relationship with internet addiction during the COVID-19 pandemic lockdown.
4. No significant relationship was found between the moderating variables (coping strategy) and independent variable (social isolation): $r = .046$, $P > .05$.

Discussion

Foremost, the outcome of the study shows an increase in internet addiction ($x=60.1$ i.e. moderate addiction) during the COVID-19 pandemic lockdown. This indicates that the first hypothesis which stated that there will be a surge in internet addiction during the COVID-19 pandemic lockdown is accepted. During the lockdown, most of the participants (85%) reported spending more time on the internet during the COVID-19 pandemic lockdown compared to the number of times they spend before the lockdown. They attributed this to a lack/low social engagement. Of course, when someone is busy with one activity or the other, he/she may not have the time to spend on the Internet. Today when smart phones are common most people always make it their companion whenever they are not socially engaged. This is a clear indication that the COVID-19 pandemic lockdown promoted internet addiction. Similar findings were observed by other researchers across the globe.

Siste et al., (2020) reported an increase of 52% from 14.4% in internet addiction in Indonesia during the COVID-19 pandemic lockdown. In addition, Dong et al. (2020) also reported excessive internet use among Chinese children and adolescents during the COVID-19 pandemic. Fateme, et al. (2020) observed that about 50% of nursing and midwifery students of Islamic Azad University showed moderate addiction to the Internet during the COVID-19 pandemic lockdown. At Nolan University of Medical and health sciences Pakistan, 60% of the 500 students examined showed severe forms of internet addiction.

Furthermore, the second hypothesis which stated that there will be a significant relationship between social isolation and internet addiction amid the COVID-19 pandemic lockdown is accepted. In other words, poor engagement in social activities has a significant relationship with internet addiction during the COVID-19 pandemic lockdown. According to the findings of the study, Social isolation has a significant positive relationship with internet addiction during the COVID-19 pandemic lockdown. In other words, those who were not socially engaged during the COVID-19 pandemic lockdown became more internet addicts than those who were engaged socially. This may be attributed to the fact that when one is socially busy, she may not have the opportunity to use the internet unlike when the person is not socially engaged and doing nothing.

This finding collaborated with similar works and findings done by other researchers. In one of the works, Siste et al., (2020) reported that the duration of the COVID-19 pandemic lockdown increased internet addiction in Indonesia. They attributed this to poor social engagement. This simply means that the more people are not socially engaged the more they engage in internet usage which may eventually makes them addicts.

The third hypothesis which stated that there will be a significant relationship between coping strategy and internet addiction during the COVID-19 pandemic lockdown is hereby rejected. Hence, the findings of the study showed that coping strategy had no significant relationship with internet addiction during the COVID-19 pandemic lockdown. According to the findings, the coping strategy (emotion-focused or problem-focused) adopted by the participants played no significant role in the individual's internet usage. Some participants were internet addicts during the COVID-19 pandemic lockdown even though they adopted

an emotion-focused coping strategy. On the other hand, some who adopted problem-focused were found to be internet addicts showing clearly that coping strategy has no relationship with internet addiction. In other words, adopting an emotion-focused or problem-focused coping strategy did not determine internet addiction during the COVID-19 pandemic lockdown. Ordinarily, the popular opinion would be that coping strategy will predict internet addiction but the finding of this study stated otherwise. A good understanding of these two coping strategies shows that the reason for this outcome may not be farfetched from the fact that most of the actions of both emotion-focused and problem-focused were affected by the lockdown.

Thus, the fourth hypothesis which stated that coping strategy will have a significant relationship with social isolation during the COVID-19 pandemic lockdown is hereby rejected. This is because the findings of the study showed that coping strategy has no significant relationship with social isolation during the COVID-19 pandemic lockdown. In other words, adopting an emotion-focused or problem-focused coping strategy during the COVID-19 Pandemic lockdown has no association with being socially isolated or not. Of course, one should not be too surprised with this outcome because locality as well as perception about COVID-19 was seen as a major reason for adherence to the COVID-19 safety protocol. Those who believe in the disease irrespective of their coping strategy isolated themselves from all social engagements and activities while those who did not were busy engaging in social activities irrespective of the coping strategy they adopted.

We could recall that during the covid-19 pandemic lockdown, some people were too afraid that they flagged a red flag for all visitors. They neither visited nor received visitors. Some were even afraid of answering calls. Some even blocked their phones from receiving calls.

In a situation like this, the only option for some people under this condition was to make the Internet their companion. Regarding the above discussion, it is clear why coping strategy could not moderate social isolation in internet addiction during covid-19 pandemic lockdown.

Implications of the Findings

The outcome of this study has obvious implications; first and foremost, the study revealed that social isolation is a serious factor in internet addiction. Furthermore, one would expect that coping style would moderate social isolation to influence internet addiction surprisingly, the outcome of this study revealed otherwise. The finding showed that irrespective of the coping strategy adopted by an individual during the COVID-19 pandemic lockdown it has no relationship with internet addiction.

In addition, the outcome of this study is an eye-opener to stakeholders on curbing internet addiction. The finding of this study will help stakeholders in curbing internet addiction to understand the roles/effects of social isolation on internet addiction. Therefore, to curb internet addiction to the barest minimum, people should be engaged socially.

Another implication of this study is that it has helped to show one of the psychological consequences (internet addiction) of the COVID-19 pandemic lockdown. The study showed

a high prevalence of internet addiction during the covid-19 pandemic lockdown when compared to other periods.

Conclusion

Based on the outcome of the study, the researcher concludes that internet addiction was at increase during the covid-19 pandemic lockdown. Secondly, there is a significant positive relationship between social isolation and internet addiction during the covid-19 pandemic lockdown. Also, coping strategy (problem focus and emotion-focused) has no significant relationship with internet addiction during the COVID-19 pandemic lockdown.

Finally, coping strategy has no significant relationship with social isolation during the COVID-19 pandemic lockdown.

Recommendations

1. Some people were not willing to participate due to fear of COVID-19 stigma and other psychological implications. People should be informed /or sensitized to support scientific research.
2. The finding of this study will help stakeholders in curbing internet addiction to understand the roles/effects of social isolation on internet addiction. Therefore, to curb internet addiction to the barest minimum, people should be engaged socially.
3. This study showed that coping strategy has no significant contribution to social isolation and internet addiction during covid-19 pandemic lockdown. This simply means that the coping strategy people adopted during the covid-19 lockdown did not change their internet usage.

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