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Need Satisfaction and Positivity Promoting Mental Health through the Context of the COVID -19's Pandemic

ABSTRACT

The outbreak of COVID-19 may be stressful for people. Fear and anxiety about its condition can be emotionally overwhelming. The virus has already had a direct impact on the physical health of numerous people. Additionally, it has a significant effective threat upon mental health. This study aims to address mounting evidence concerning the immediate psychological responses to the CoViD-19 pandemic among the general population. In addition, this article focuses on the construct of the impact of coronavirus on mental health by examining the role of Psychological Factors such as the need for satisfaction and positivity among the individuals who are guaranteed in Erbil. The study includes data from a convenient sample of social communities in Erbil (N = 260; 180 males and 180 females). The sample range age is from 18 to 57 with a mean of 3.04 years (SD = 7.79). The analyses indicated more vital basic Need satisfaction and higher levels of positivity and mental health. As well, the results show that positivity could concede as a unique prediction to mental health. Mediation analysis suggested the following interpretation of the interdependencies: total positivity supports mental health and needs satisfaction in the context of COVID-19.

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الحاجة إلى الرضا والإيجابية تعزز الصحة النفسية ضمن سياق جائحة كوفيد-19

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الخلاصة:

ان تفشي فايروس كورونا (كوفيد -19) قد يكون مرهقاً للناس. اذ يكون الخوف والقلق حالة ساحقة ويسبب مشاعر مؤذية للأفراد. إن هذا الفيروس له تاثير مباشر على الصحة الجسدية للعديد من الأشخاص، بالإضافة الى ذلك ان لهذا الفيروس تاثير كبير وخطير على الصحة النفسية. هدفت هذه الدراسة إلى

التحقق من الأدلة المتعلقة بالاستجابات النفسية الانية لوباء كوفيد-19 بين الافراد. إضافة إلى ذلك، تركز هذه الدراسة على التحقق من تأثير فيروس كوفيد-19 على الصحة النفسية للافراد وذلك من خلال دراسة الدور الوسيط للعوامل النفسية مثل إشباع الحاجة والإيجابية في تحديد العلاقة بين كل من كوفيد-19 والصحة النفسية لدى الأفراد المصابين بالمرض في مدينة أربيل. اشتملت هذه الدراسة على عينة افراد المجتمع من المصابين بهذا الفيروس حيث تم اختيارهم عشوائيا من الفئات الاجتماعية المختلفة في مدينة أربيل (العدد = 260؛ 180 ذكر و 180 أنثى). وتراوحت اعمارهم من 18 إلى 57 سنة بمتوسط حسابي قدره (30.4) سنة وبانحراف معياري قدره (7.79). أشارت نتائج الدراسة إلى ان المستويات العالية من إشباع الحاجات و الإيجابية تؤدي الى ارتفاع مستويات الصحة النفسية لدى المرضى. بالإضافة إلى ذلك ، تُظهر النتائج أن الإيجابية يمكن أن تعتبر بمثابة متنبئ جيد للصحة النفسية. كما اظهرت نتائج تحليل الوساطة بين المتغيرات الثلاث في سياق مرض كوفيد-19 الى ان اشباع الحاجات والايجابية تساعد على دعم الصحة النفسية للافراد.

Introduction

The World Health Organization in January 2020 declared the outbreak of a new coronavirus disease, COVID-19, to be a national health emergency of global concern. WHO stated a high risk of COVID-19 spreading to other countries around the world; in March 2020, WHO assessed that COVID-19 could be characterized as a pandemic? (Trzebiński, Cabański, & Czarnecka, 2020; World Health Organization, 2020). During an outbreak of infectious disease, the population's psychological reactions play a critical role in shaping both the spread of the disease and the occurrence of emotional distress and social disorder during and after the outbreak. Despite this, sufficient resources are typically not provided to manage or attenuate pandemics' effects on mental health and well-being. While this might be comprehensible in the acute phase of an outbreak when health systems prioritise examining and reducing transmission and critical patient care, psychological and psychiatric needs should be considered during phase pandemic management.

There are many reasons for this. It is known that psychological factors play an important role in adherence to public health measures (such as vaccination) and in how people cope with the threat of infection and consequential losses.¹ These are crucial issues to consider in the management of any infectious disease, including COVID-19. Psychological reactions to

pandemics include maladaptive behaviors, emotional distress and defensive responses.¹ People who are prone to psychological problems are especially vulnerable. (Taylor, 2019)

The COVID-19 pandemic is unique in its rapid transmission, which has become a global health emergency within just a few months in all countries worldwide. The coronavirus disease 2019 (COVID-19) outbreak might be stressful for the individuals that may cause fear and anxiety about a condition, can be crushing, and generally could cause strong emotions. This pandemic is proverbial and could be considered a comprehensive storm of stressors. It includes losing a job, economic instability, food insecurity, and uncertainty about when life will return to normal. The key to protecting our physical health is social distancing, but social isolation generally affects mental health.

To one side from physical suffering, COVID-19 cases could suffer from tremendous psychological pressure and other health-related problems. (Xiang et al., 2020). Also, incomplete information on the COVID-19 and the flooding news may lead to mental illness issues and fear in public (Bao, Sun, Meng, Shi, & Lu, 2020). This outbreak could lead to different health issues such as stress, anxiety, depressive symptoms, insomnia, and fear globally. Collective concerns influence daily behaviours, prevention strategies and decision-making from policymakers, health organisations and medical centers, which can weaken techniques of COVID-19 control and lead to more morbidity and mental health needs at the global level. (Torales, O'Higgins, Castaldelli-Maia, & Ventriglio, 2020). Even though the research related to mental health with COVID-19 are scarce, several authors highlight that it is possible to predict the expected outcomes in the mental health of the individuals (Kang et al., 2020). On the whole, COVID-19 and its inclusion measures have established unique challenges for psychological well-being. To face adverse outcomes must be identified that boost resilience in times of crisis (Holzer et al., 2021; Yıldırım, Arslan, & Aziz, 2020).

Moreover, psychological need satisfaction can act as a stress reducer during the time; this might reduce appraisals of stress and promote adaptive coping. (Vansteenkiste & Ryan, 2013; Weinstein & Ryan, 2011). likewise, need satisfaction contributes to the experience of heightened psychological and physical health in a variety of domains (Baard, Deci, & Ryan, 2004; Ilardi, Leone, Kasser, & Ryan, 1993; Vansteenkiste & Ryan, 2013), and general health

practices (Williams, McGregor, Zeldman, Freedman, & Deci, 2004; Williams et al., 2006).

Predicting the possible consequences of the COVID-19 pandemic is challenging and somewhat unpredictable in a short and longer perspective because the pandemic is a chain of severe and generally uncontrolled. In such conditions, our thinking and emotions may be influenced by our experience and knowledge and more general and stable assumptions on the world and our own lives. (Bertozi, Franco, Mohler, Short, & Sledge, 2020; Silva et al., 2021) These attitudes could have an impact on the understanding of incoming facts and simulations of the future possibilities (Trzebiński et al., 2020).

We believe that investigating the psychological effect of the COVID-19 pandemic may provide helpful insight for developing more effective interventions to support individuals in general. Additionally, being in such a state of stress for a prolonged period will lead to adverse psychological outcomes. Realising the psychological impact on the individuals is diagnosed with COVID-19 might be helpful to address this issue from a positive psychological perspective. Also, it may be beneficial for developing targeted mitigating or intervention expected poor consequences as the global pandemic continues.

Methodology

Sample

Initial participants included 260 patients who are diagnosed with COVID-19 in Erbil from both genders (130 males and 130 females) are analyzed, age ranged from 18 to 57 with a mean of 29.71 years ($SD = 8.12$). From the sample size, the majority are married (62.42%), followed by a single (27.61%), divorced (6.9%), and widows (1.7%). Some participants (2.37%) declined to answer the question about marital status. Concerning education level, 26.66% had completed primary education, 22.6% had completed secondary level, and 50.74 had attended university.

Measures

Need satisfaction

For Measuring need satisfaction, the Basic Needs Satisfaction in General Scale (BNSG-S) is used. The scale is contained 21-items that are created to assess the satisfaction of basic psychological needs in general. Participants are instructed to specify how true they feel each statement of their life and respond on a scale of 1 (Not at all true) to 7 (Very true). From the 21 items, nine items are negatively worded and reverse scored before analyses—higher scores representing greater satisfaction of needs. A sample statement includes, "I generally feel free to express my ideas and opinions" A sum of all scores yields a total score indicating the need satisfaction of the participants.

Positivity

Positivity scale Caprara et al. (2012) is used. The scale contains 8-items. Participants are instructed to specify how true they feel each statement of their life and respond on a scale. The scale consists of 8 statements answered, ranging from "strongly disagree" (1) to "strongly agree" (5). A sample statement includes, "Others are generally here for me when I need them". Only One item is negatively worded and reverse scored prior to analyses. A sum of all scores yields a total score indicating the positivity of the participants.

All scales are translated into Kurdish language. The English items from the P Scale are translated From English into Kurdish language then back-translated into English from the Kurdish by two different bilingual experts who are fluent, respectively, in Kurdish and English. Finally, the English items from the P Scale with original English items are given to different bilingual experts who are fluent in English.

Mental-Health

The PMH scale Lukat et al. (2016) is a broad scale designed to measure Mental-Health in a variety of groups on single occasions and across time. Therefore, it is required that the PMH scale is equivalent for groups and across time. The scale consists of 9 items, ranging from "strongly disagree" (1) to "strongly agree" (5). A sample statement includes, "I am often carefree and in good spirits".

Procedure

Participants are individually recruited from Erbil Governorate hospitals how decongested having COVID-. The explanation is presented to the Participants in the study, all health and safety procedures are implemented during the collection. As well as, the trained research assistants provided information regarding the general aims and process of the study. They also brief that their participation is entirely voluntary, anonymous and confidential. Administration of the questionnaires is applied after obtaining an informed consent from all participants. A university ethics committee reviewed and approved the study procedure.

Statistical analysis

Divers' analytical procedures are used across the study; the data are calculated by using SPSS and AMOS software version 24. framework analysis of scales has been applied, and correlations between mental health, positivity, and need satisfaction variables were analysed (gender, age, education level, and marital status) with the three variables. Linear multiple regression is also applied (Hair, 2009) to verify the predictive power of resilience and its factors (determined mental health, positivity, and need satisfaction among COVID-19 patients). Also, to examine our mediate hypothesis, SEM is applied (Hayes, 2017) in which positivity and need satisfaction acted as the mediator variable and mental health and COVID-19.

RESULTS

Descriptive and group comparison findings

In the current study, we explore a general characteristic of the participants across the study variables, and descriptive statistics is used (Table 1). There are no issues with normality since skewness and kurtosis values range between ± 1 , indicating a *very good* distribution of data (George & Mallery, 2016). Considering the midpoint of each measure, participants scored high levels of Need satisfaction, Positivity, and Mental Health.

Table 1. Descriptive statistics

	Skewness	Kurtosis
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Variable	α	Min	Max	Mean	SD	Statistic	SE	Statistic	SE
Need satisfaction	0.82	46	81	64.73	5.55	-0.04	0.15	0.26	.30
Positivity	0.79	14	35	27.26	4.53	-0.39	0.15	-0.40	.30
Mental-Health	0.80	8	30	20.07	3.68	-0.17	0.15	0.20	.30

To identify the gender differences among the individuals' t-test for independent sample is used for all study variables (Table 2). Results indicate no significant difference in variables Need satisfaction, Positivity and Mental-Health between female and male.

Table 2. Independent sample t-test comparing gender across the study variables

Variable	Gender	Mean	SD	t	p
Need satisfaction	Male	64.72	5.48	0.56	0.96
	Female	64.75	5.64		
Positivity	Male	27.39	4.55	0.46	0.64
	Female	27.13	4.53		
Mental-Health	Male	20.35	3.87	1.20	0.55
	Female	19.80	3.48		

Correlation analysis

Intercorrelation among the study variables (Table 3) is conducted. Gender and age are positively related to Need satisfaction, positivity, and Mental-Health. In addition, education level and Marital Status were significantly associated with Positivity and Mental-Health. On the other hand, education level and Marital Status are not related to need satisfaction. Need satisfaction is positively associated with Positivity and Mental-Health. In contrast, there are positive correlations between Positivity and Mental-Health. See table3.

Table 3. Correlations among the variables

	1	2	3	4	5	6	7
1. Gender	1	0.18 [*]	0.21 ^{**}	0.17 [*]	0.14 [*]	0.21 [*]	0.28 ^{**}
2. Age		1	0.20 ^{**}	0.37 ^{**}	0.32 ^{**}	0.19 [*]	0.04
3. Education level			1	0.11	0.09	0.29 ^{**}	0.17 [*]
4. Marital Status				1	0.03	0.27 ^{**}	0.32 ^{**}
5. Need satisfaction					1	0.41 ^{**}	0.32 ^{**}
6. Positivity						1	0.48 ^{**}
7. Mental-Health							1

^{**}. $p < 0.01$; ^{*}. $p < 0.01$. The relationship between gender, age, education level and Marital Status with other variables indicate a point-biserial correlation

Multivariate analysis

Two linear regression analyses are conducted to assess the main aims of this study. For the regression model used to predict either, Mental health we enter age, gender, education level, and marital status at Step 1, with positivity and Need satisfaction entered at Step2. We examine whether Mental health uniquely predicted either positivity and Need Satisfaction beyond the effect of socio-demographic characteristics. For the regression model, there are no issues with multicollinearity among the independent variable estimated with variance inflation factors (range = 1.01-0.88) and tolerance (range = 1.02 to 0.87) which met the criterion of Allison's (2012), who suggested that variance inflation factor > 2.5 and tolerance $< .4$ raise concerns around multicollinearity.

Table 4 shows the results of liner multiple regression analyses predicting Mental health from independent variables of age, gender, educational level, and Marital status, at Step 1, $F(0.31) = 0.87$, $r = .07$, $r^2 = .01$, $p > 0.05$. Introducing Positivity and Need satisfaction at Step 2 produced a significant change in model, with Positivity and Need satisfaction being the unique predictors of Mental health, $F(4.05) = 9.00$, $r = .32$, $r^2 = .10$, $\Delta r^2 = .08$, $p < 0.001$.

Table 4. Summary of linear regression analysis findings

	Mental health				
	B	SE	β	t	Sig.
<i>Step 1</i>					
Gender	-.272	.398	-.044	-.684	.495
Age	-.086	.257	-.022	-.336	.737
Education level	.145	.265	.036	.547	.585
Marital Status	.268	.360	.047	.744	.458
<i>Step 2</i>					
Gender	-.211	.382	-.034	-.553	.580
Age	-.065	.246	-.017	-.265	.791
Education level	.160	.254	.040	.629	.530
Marital Status	.528	.348	.092	1.519	.130

Need satisfaction	-.233	.047	-.338	-5.000	.000
Positivity	.198	.057	.233	3.445	.001

Structural

Equation

Modelling

To examine the hypothesis that positivity and need satisfaction could mediate the relationship between mental health and COVID-19, SEM is performed in which positivity and need satisfaction acted as the mediator variable and mental health and COVID-19 served as the predictor variable. In contrast, positivity and need satisfaction served as the dependent variable. Direct relationships among the variables have been also investigated. The theoretical structural model is proposed to assess the direct and indirect effects of positivity, need satisfaction, mental health and COVID-19. Positivity and need satisfaction presented with two methods while mental health and COVID-19 are represented as overall variables. The variables are created based on their total correlations. The initial independent construct and the most critical input in this study are

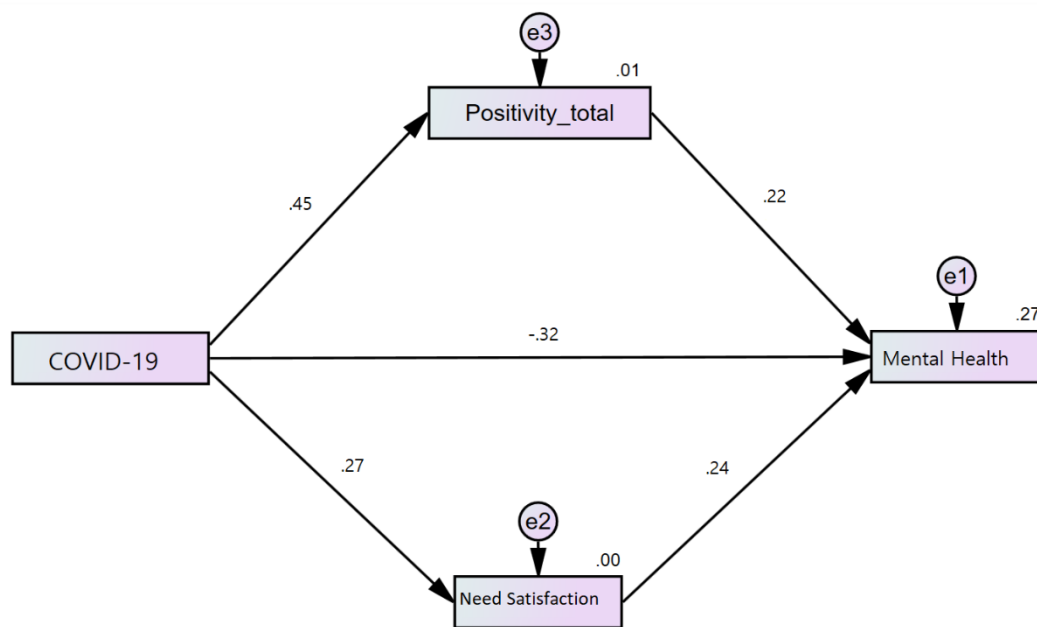


Figure 1. Path model including four measured variables COVID-19 are set as independent variables, Positivity and Need Satisfaction considered as mediator variable, and mental health is a dependent variable.

positivity and need satisfaction. We use various goodness-of-fit statistics to assess the closeness of the hypothetical model to the data. Path analysis results show coefficients standardised by the relevant ranges; these coefficients are shown in Figure 1—the differences between the values of the correlation among the variables, the absolute. The coefficient for the effect of positivity on mental health is significantly correlated with positivity and need satisfaction and

positivity correlated with COVID-19. When looking at the whole sample, all three variables show significant relationships between mental health and positivity ($\beta = .45, p < .01$), as well, significant relationships between mental health and positivity ($\beta = .27, p < .01$). On the other hand, mental health correlated negatively with COVID-19 ($\beta = -.32, p < .01$). The standardised indirect effect of positivity significantly predicts COVID-19 ($\beta = .22, p < .02$). As well, need satisfaction positively predicted COVID-19 ($\beta = .24, p < .02$).

DISCUSSION

Due to COVID-19 pandemic, mental health has become a particular concern for researchers and practitioners. Earlier studies that focus on pandemics confirmed that people who experienced public health crises report different levels of mental health issues.(Batawi et al., 2019; Bo et al., 2021; Lee et al., 2007) With who has been approved or the suspected they infected with the virus. According to the previous studies that patients who are affected by COVID-19 could experience psychopathological problems because of some reasons such as clinical conditions, disease progress, the side effects of the medication, fear of virus transmission to others, uncertainty, and physical inconvenience. (Talevi et al., 2020) The ongoing COVID-19 pandemic should limit reflective thinking on the current situation. As known, our attention, thoughts, and emotions are controlled by direct signals of danger, provided mainly through daily images and facts seen in media, which cause a harmful effect on our mental health. The strong link between anxiety and the negative thoughts activated by the pandemic is more likely to lead to the appearance of a self-reinforcing spiral of emotions and thoughts. (Trzebiński et al., 2020)

Several studies suggest that the strength of essential mental health might be broken by intense negative experiences such as exclusion by an important social group due to having a medical condition (Happell, 2008) Therefore, patients with COVID-19 may experience loneliness, anger, anxiety, depression, and mental illness that might negatively impact the individuals' social functioning (Sommerlad et al., 2021) and life quality (Nguyen et al., 2020).

Nevertheless, Previous studies reported that the provision of psychological intervention to those suffering from Contagious disease leads to significant clinical implications like maintaining psychological well-being and

helping to fight infectious diseases (Ma, Du, & Guo, 2004; Yang et al., 2020). The results show that the expectation that general assumptions about an individuals life are related to a reaction to sudden and unpredictable danger. Mental health, positivity, and need satisfaction could consider as a solid presumption to reduce the negative impact of thoughts and emotions evoked by the threat of the ongoing CONVID-19 pandemic. Findings are encouraging that positivity, and needed satisfaction could significantly mitigate the negative effect on mental health among the infected with the COVID19 virus. Yet, although the correlations are not high, the study results indicate that even in such circumstances, a person's high positivity and Need satisfaction act as a buffer against the harmful psychological impact of COVID-19, such as panic reactions on the virus pandemic. In keeping with the anticipation, the assumptions of the world's system and positivity indirectly affect the response to the pandemic by mediating the psychological and physical life that goes with a person's reactions to the COVID-19 pandemic (Talevi et al., 2020; Velykodna & Frankova, 2021).

In the presented model, mental health, positivity, and need satisfaction are stable factors that influence the cognitive process and emotions in case of danger. We aim to identify to what extent these variables could reduce the situational aspects of COVID-19; this interpretation may change the basic assumptions, which in return influence the understanding of the apparent dangerous circumstances. Additionally, feasible steps to manage mental health during this harmful condition is taking practical steps to protect ourselves and our loved ones (World Health Organization, 2020). Maintaining random information could foster further unnecessary panic (Johal, 2009). The critical step is ensuring daily exercise activities that may have a positive impact on our mental health (Deslandes et al., 2009). Despite COVID-19 requests increasing physical distance, finding ways to maintain social connectedness is necessary, such as organising regular phone calls, video conferences with family members and friends could reduce the gaps imparted by social distancing.

Conclusions

The outbreak of the COVID-19 has caused enormous psychological problems in different subpopulations. Despite Iraqi authorities having announced relevant policies and actuating principles strategically to control the situation, the COVID-19 epidemic has posed a severe emerging challenge for the mental health in Iraq, especially since this country faces lack of medical services with

increasing deaths among infected people. The present research highlights the relevance of mental health, positivity, and needs satisfaction in the COVID-19 pandemic among patients diagnosed with this disease. The study aims to examine the positive psychological factors in reducing the impact of COVID-19. This step attempted to minimise the psychological effects of this disease in individuals and enhance their psychological immunity.

Declarations

All procedures performed in the current study involving human participants followed the ethical standards of Salahaddin University Research Ethics and the code-conduct of the American Psychological Association (Code & Psychologists, 2017).

Disclosure statement

The author declares no conflicts of interest with respect to the research, authorship, and/or publishing of the article.

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