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Investigation of the Psychological Components and Coping Strategies in People Recovered from Coronavirus

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Abstract

The Covid-19 pandemic has made fundamental changes in the human world at the levels of relationships, jobs, education, and health issues. This study was conducted to identify the components of basic psychological coping strategies in people with Covid-19 disease. Participants were people recovered from coronavirus in autumn 2020 in Ardabil of Iran. The research method was qualitative phenomenological type. Eighteen persons were studied through semi-structured interviews. One hundred thirty codes identified related to the objectives of the study. The results of the analysis identified four main topics and sixteen primary categories for hospitalized patients. The four main issues include symptoms and coping skills, treatment expectation, and consequences. The results showed that benefiting from psychological capital can be considered an essential aspect of coping skills. In dealing with Covid-19 disease, patients use all kinds of problem-focused to emotion-focused coping strategies and their resources and even negative coping methods to survive. These indexes implied how a cohesive body and mind make survival. Good physical perception, self-confidence, high will to survive and hope are among these resources. All patients are grateful for their health after recovery. More importantly, the perception of social support, such as being supported by a spouse, family member, and proper physical activity, are healing factors against Covid-19 disease.

Keywords: Coping skills, COVID-19 disease, Psychological components, Qualitative.

Introduction

The COVID-19 pandemic has affected various economic, social, political, and military dimensions of most countries; therefore, it is essential to pay attention to the psychological consequences of this disease on people's mental health (Li et al., 2020). This disease has become a threat due to its rapid spread in the shortest possible time. The COVID-19 pandemic has become severe the body and mental health of people in the community (Wang et al., 2020). Fever, cough, chills, muscle aches, and fatigue are among the early symptoms of coronavirus; and may be associated with respiratory symptoms. Common symptoms of this disease include sputum, headache, nausea, diarrhea, and shortness of breath (Huang and Liu, 2020). The spread of the coronavirus has led to people staying at home or in quarantine centers in most countries. Uncertainty about the spread of the disease and its unpredictability leads to stress in people. People are more likely to have mental health problems due to fear of getting and controlling the disease (Huang and Zhao, 2020). Most COVID-19 symptoms after discharge were risk factors of depression and anxiety, but only cough, fatigue, and chest distress were significant for PTSD due to COVID-19 (Liu et al., 2020).

Studies in the field of COVID-19 symptoms show that quarantine is associated with psychological problems, and the psychological effects of quarantine may appear months or years after the illness. Due to the extended quarantine of people who are unable to work and have to quit their jobs without any planning, the financial loss can lead to psychological problems, anger, and anxiety in these people (Brooks et al., 2020). Mental health damage people created, and various psychological disorders occur (Xu et al., 2011). A decentralized support system and social isolation during quarantine make people vulnerable to acute stress reactions. Research shows that even people who had mental health before the coronavirus outbreak, developed disturbing thoughts and obsessive behaviors, and negative emotions such as anxiety, depression, anger, and sensitivity to social risks. We see a significant drop in positive emotions such as happiness and life satisfaction. People often worry about their health and family and not worry too much about their leisure time and friends (Schoch-Spana, 2020). Numerous studies on the psychological disorders of quarantined individuals report psychological trauma such as emotion regulation disorder, depression, stress, negative mood, irritability, sleep disorders, attention deficit disorder, posttraumatic stress disorder, anger, and emotional numbness (Brooks et al., 2020; Rubin and Wesley, 2020; Xu et al., 2011). Park et al. (2020) in Korea reported in their paper, "Psychological Consequences of Survivors of COVID-19 Pneumonia one Month after Discharge," depression and posttraumatic stress disorder (PTSD) were 10%. Perceived stigma was prevalent, and survivors also reported that they were concerned about infecting others and being discriminated against and that they chose to avoid others after discharge.

In a study by Ogueji, Okoloba & Ceccaldi (2021) in the United Kingdom, conducted on 50 patients with COVID-19 using a qualitative research method using four open-ended questions, the goal was to determine coping skills. Patients were in the process of developing the disease. The results showed that eleven topics identified, including a romantic relationship with a person, entertainment with one thing, busyness with a job,

busyness with study, avoiding bad news about COVID-19, drinking alcohol, proper nutrition, yoga and exercise, hope, self-care, and self-encouragement. Curşeu et al. (2021) in their study with COVID-19 patients found that COVID-19 anxiety and negative mood were positively predictable by death anxiety. Death anxiety reflect a person's constant tendency to voluntary cognitive processing of death, which focuses on the positive side of death and includes objective behavioral goals to understand these objective aspects. It reduces negative mood about COVID-19 and the positive relationship between death anxiety, negative mood, and Covid-19 anxiety. Ahuja's study (2021), "the study of the dimensions of stress and coping with COVID-19 epidemic," which performed on 1009 normal people, showed the most common coping skill was seeking social support and there was no significant correlation between different coping skills and all kinds of stress.

Aliakbari Dehkordi et al. (2020) in Iran evaluated psychological consequences in patients with COVID-19 using a qualitative method. The results identified negative emotional consequences, including fear of death, depression, anxiety, decreased social activities, feeling of exclusion, decreased effective exchange with family and community, and label experience. Cansel et al. (2021) assessed prevalence and predictions of psychological response to the COVID-19 disease epidemic among participants with symptoms of infection and quarantine treatment using an online questionnaire. The results among 3549 participants in Turkey showed 8.15% anxiety, 22.6% depression, 12.9% stress, and 20.29% trauma based on moderate and high levels. In the research of Meseguer de Pedro et al. (2021), their findings indicated a significant worsening of employees` health perception and psychological capital levels during mandatory confinement in Spain. They concluded a significant reduction in self-perceived health and psychological capital during COVID-19 mandatory confinement and burnout is a predictor variable in both health and psychological capital variance. Most researchers who study psychological processes reject the simplistic notions of organ specificity to justify body symptoms and look at body symptoms interactively. As in most studies, the interaction between psychological states, biological, and social variables emphasized. One of the psychological variables is perceived stress. Today, stress is a part of daily life, and dealing with it is inevitable (Kara & Türkinaz, 2004).

A study by Ma et al. (2020) entitled, "The effect of Budanjin movements on quality of life in patients with COVID-19 disease" showed that not only doing these movements improve the quality of life in patients with COVID-19 disease but also significantly are effective to muscle pain, cough, sputum, runny nose, sore throat, shortness of breath, chest tightness, difficulty breathing, headache, nausea, vomiting, anorexia, diarrhea, decreased nucleic acid, improved CT scan images, reduced the length of hospital stay, and mortality are effective. The sample population in this study was improved individuals suffering from complications of the disease. Liu et al. (2020) conducted a survey in April 2020 in Wuhan, China on 675 people, including 90 medical patient staff (13.3%) and discharged patients. The aim was to determine the risk factors associated with anxiety, depression, and posttraumatic stress disorder in patients discharged from COVID-19 disease. 10.3% were diagnosed as moderate to severe anxiety, 19% as moderate to severe depression, and 12.4% as posttraumatic stress disorder. Sleep disturbance found to be the most important

symptom. Perceived discrimination was the most important predictor of mental illness. Prevention and prosecution of the social label associated with COVID-19 disease developed to improve patients` mental health. Perceived discrimination is due to people distancing themselves from COVID-19 disease patients for fear of infection. Thus, feeling isolated from others hurts and contributes to the symptoms of mental illness. Perceived discrimination previously known in patients with improved SARS (Person et al., 2004).

Jafari (2020), in his study entitled "Comparing Cognitive Flexibility, Psychological Capital and Coping Strategies with Pain between Individuals with COVID-19 Responding and Non-Responding to Home Treatment", found that catastrophic coping strategy in the group responding to home treatment was significantly less than the group not responding to home treatment. But in cognitive flexibility, self-efficacy, hope, resilience, optimism, coping strategies, return attention, reinterpret pain, conversation with temperament and ignoring pain, prayer-hope and increased behavioral activity in the group responding to home treatment was significantly higher than the group not responding to home treatment. Grover et al. (2020), in their article entitled "Why all COVID-19 hospitals should have mental health professionals: The importance of mental health in a worldwide crisis!" have confronted people with the negative consequences of mental health. Because little attention paid to the field of hip health in hospitals, it is necessary to address it in all stages of COVID-19 disease by activating experts in the field of mental health.

Perceived stress is the body's response to a change that requires adaptation or a mental, body, or emotional response. Perceived stress is the state or process by which a person perceives their body and psychological well-being as threatened. Creating stress depends on how one perceives situations and events. According to the cognitive-interactive model, a situation may be considered safe for one person and a threat to another (Gallagher et al., 2019). If a person perceives his environment as stressful and is not able to deal with situational problems, his stress will increase, but if he can cope with stressful events, he will feel less stress (Bhat, 2017). The basic tenet of the Conservation of Resources Theory is that individuals strive to obtain, retain, protect, and foster those they have valued. Hence, having a higher level of resources is favorable, especially in high psychological social stress (Hobfoll, 2001). Luthans, Youssef, and Avolio (2007) propose psychological capital as a second-order construct that brings together four resources (optimism, resilience, hope, and self-efficacy). Self-efficacy is a state of positive psychological development characterized by having the confidence to face challenges and complex tasks. Optimistic person makes positive attributions about the present and future triumphs. Hope is defined as visualize and persevere in the goals, as well as redirect the objectives when necessary to achieve success and resilient person recover and even emerge stronger from adversity. Hobfoll (2001) identified loneliness as a potent precursor of stress, depression, anxiety, and suicide, potentially exacerbating pre- existing psychological and mental issues. Recent studies have shown that social isolation and loneliness due to home confinement measures increase the risk of psychological distress, depression, and anxiety in people. Longer duration of loneliness considered as a potent

precursor of adverse psychological iatric symptoms (Hawkley and Cacioppo, 2010; Lim, Holt- Lunstad, and Badcock, 2020; Rauschenberg et al., 2020). The concept of resilience has identified as an ability to cope with and adapt effectively to major stressors (Luthar, 2003; Luthar & Cicchetti, 2000). Resilience has also conceptualized as a critical psychological resource that refers to the ability to "bounce back" from stress quickly, adapt to new situations flexibly, and even psychologically change positively in the face of adversity (Bonanno, 2004).

Therefore, considering the limited information and research resources on how to deal with people with COVID-19 disease and the type of their experiences during the disease, in this qualitative research, by examining the phenomenological world of people cured of COVID-19 disease, the coping styles, and psychological capital of patients recovering from COVID-19 disease should be studied. thus, This study was conducted to identify the components of basic psychological coping **strategies** in people with Covid-19 disease.

Methods

The research method of the current study was qualitative phenomenological. The present study also used the phenomenological approach to identify people`s experiences with COVID-19 disease and its consequences. The purposeful sampling method used, and sampling continued until the theoretical saturation stage. The sample group evaluated through semi-structured interviews, and findings were analyzed using the seven-step Colaizzi's strategy. The statistical population of this study consisted of patients recovering from COVID-19 disease in Ardabil, Iran who hospitalized in autumn 2020. The statistical population of this study was 2499 recovered patients from coronavirus, which was provided to the researcher by Ardabil Health Network. In addition to communicating with each person, 18 people were selected from the list for interviews. The exact number of participants was determined by two criteria, meaning that sampling continued by conducting a semi-structured interview and reaching information saturation and adequacy. The semi-structured interview accomplished by on skilled graduate student.

Inclusion criteria were definite evidence of COVID-19 disease using a doctor's test and diagnosis conducted by the health branch of Ardabil University of Medical Sciences. A semi-structured interview used for gathering the information. This interview consisted of 48 questions that would be asked if the interviewees did not mention their narratives of illness and accompanying experiences. Four professors of counseling from University of Mohaghegh Ardabili reviewed the questionnaire for content validity. A sample of questions were, can you tell me the story of your illness? How did you find out about your illness? What were the most important symptoms you had? Explain the most important thoughts you had during your illness? The results reviewed, and after corrections, the final questions determined for the interview. To ensure the validity of the findings, after analyzing each interview, the participants were asked to comment on the correctness of the answers. To achieve reliability, researchers used the guidance and supervision of professors and expert physicians. To determine the validity, the researchers tried not to

interfere with their assumptions as much as possible in data collection and analysis. The code of ethics with the following specifications was received from Ardabil University of Medical Sciences: **IR.ARUMS.REC.1399.357.** All the criteria set in research ethics, including completing the informed consent sheet, were observed online by the subjects. Open or free coding used, and the coding was done by two trained graduate students of counseling. The average time for each interview was forty minutes.

Results

The demographic characteristics of the participants who hospitalized due to COVID-19 disease presented in Table 1.

Table 1. Demographic characteristics of hospitalized participants.

Code	Gender	Age	Education	Marital status	Occupation	Weight	Height	Blood type	Number of children
1	Female	29	Diploma	Married	Housewife	110	170	B+	2
2	Female	44	Associate Degree	Married	Teacher	77	158	O+	2
3	Male	34	Bachelor	Married	Martial	85	170	AB +	2
4	Male	42	Master degree	Married	Employee	84	176	A+	1
5	Male	21	Student	Single	Self-employment	90	180	A+	-
6	Female	34	Third-grade degree	Married	Housewife	87	160	B+	2
7	Male	22	Student	Single	Self-employment	128	187	A+	-
8	Female	39	Diploma	Married	Housewife	78	164	A+	2
9	Male	21	Student	Single	-	150	185	A+	-
10	Male	34	Bachelor	Married	Self-employment	100	185	AB +	1
11	Female	29	Diploma	Married	Housewife	110	170	B+	2

12	Male	35	Bachelor	Married	Employee	80	173	A-	1
13	Male	32	Bachelor	Single	Self-employment	80	170	AB+	-
14	Male	33	Associate Degree	Married	Self-employment	125	190	A+	1
15	Female	26	Third-grade degree	Married	Housewife	61	165	A+	3
16	Female	29	Bachelor	Married	Housewife	63	168	B+	2
17	Female	30	Bachelor	Married	Nurse	65	175	A+	1
18	Female	29	third-grade degree	Married	Housewife	80	162	B+	2

As shown in Table 1, 18 people participated in the interview, of which 9 were women, and 9 were men. The lowest degree was the third-grade degree, and the highest degree was a master's degree.

Based on the study of each interviewee`s protocols, the main issues and categories were identified and determined. In total, 130 codes related to the research objectives have been identified. Four main issues and sixteen primary categories of interviews identified. The main issues and their primary categories of experiences of people recovering from COVID-19 disease (hospitalized) described in Table 2.

Table 2. Main issues and their primary classes of experiences of people recovering from COVID-19 disease (hospitalized).

main issues	**primary categories**
Symptoms	Body
	Psychological
	Social
Coping skills	Entertainment
	Nutrition
	Spiritual
	Mental
	Medical
	Social resources
	Helplessness

Expectation treatment	Quality of staff treatment
	Recovery rate
	The quality of service
Consequences	Appreciation of life
	Concerns
	Relationships

According to table 2, the four main issues include symptoms, coping skills, treatment expectation, and consequences. The primary categories of the main issues are respectively, symptoms: body, psychological and social; coping skills: entertainment, nutrition, spiritual, psychological, medical, social resources, and despair; treatment expectation: quality of staff treatment, rate of improvement, and quality of service; consequences: appriciate of life, concerns, and relationships. Examples provided to illustrate each of the main issues and their primary categories.

The main issue of the symptoms, the primary category of body (18 codes)

Examples include severe shortness of breath (in 13 people), fatigue and weakness (in 14 people), chest pain (in 12 people), vomiting and anorexia, stomach and throat pain after vomiting (in 10 people), severe cough and vomiting (in 10 people), insomnia and restlessness, headache (in 8 people), persistent lung discomfort (in 8 people), cough (in 15 people), headache and earache (in 12 people), and weight loss (in 10 people).

The main issue of the symptoms, the primary category of psychological (25 codes)

Examples include post-mortem anxiety about family, suffering, acceptance of death, high fear (in 11 people), fear of night and suffocation, insomnia and nightmares (in 8 people), property anxiety, anger and rage (in 3 people), away from family (in 11 people), crying (in 4 people), decreased sense of courage (in 15 people), accepting death (in 5 people), the concern of family (in 14 people), boredom, appreciation of life (in 8 people), searching for the source of your illness (in 3 people), and forgetfulness and fear, worrying about my husband's torment with my death (in 6 people).

The main issue of symptoms, the primary category of social (5 codes)

Examples include limited communication and distance from family (in 14 people), loneliness (in 7 people), and loss of loved ones, and worried family members (in 7 people).

The main issue of coping skills, the primary category of entertainment (9 codes)

Coping skills include reading (in 4 people), cyberspace such as Instagram and WhatsApp, and sometimes playing on a mobile phone and watching movies (in 15 people), playing computer games (in 3 people), and working with a pet (in 3 people).

The main issue of coping skills, the primary category of nutrition (7 codes)

Examples include eating herbs and honey, but do not die (in 11 people), trying to have a special diet with the advice of a doctor (in 7 people), trying all the herbal medicines doctors suggested, and having a special diet (in 6 people), and eating and drinking (lemon and honey, drink, proper nutrition) (in 8 people).

The main issue of the coping skills, the primary category of spiritual (13 codes)

Examples include hope (in 11 people), reciting the Qur'an to increase my tolerance for the Corona (in 4 people), caressing with God (in 4 peolpe), praying a lot (in 5 peolple), reaching a place where God is no longer enough and just thinking about death (in 3 people), hope in God and not be forsaken by the sacred otherwise I will be miserable (in 8 people).

The main issue of coping skills, the primary category of mental (7 codes)

Examples include You have to fight with it (in 10 people), positive and courageous self-talk (in 6 people), optimism (trusting the medical staff, experiencing Corona, joking) (in 6 people), writing letter for children (in 3 people), and doing well and resting (in 4 people).

The main issue of coping skills, the primary category of medicine (5 codes)

Examples include traditional medicine and honey (in 11 people), taking a lot of vitamins (in 3 people), I saw that the doctor could not do anything and give medicine. I started taking herbal medication rather than using chemical one because I thought the herbal medication is helpful than chemical onethe (in 7 people).

The main topic of coping skills, the primary category of social resources (10 codes)

Include talking on the phone with friends, crafts, art, and selling them (in 10 people), financial support from colleagues (in 3 people), family support in buying (in 18 people), friendship and reunion with those we did not talk to (In 8 people), and writing letter for children, being away from family (in 7 people).

The main issue of coping skills, the primary category of helplessness (4 codes)

There was nothing I could do but pass the signs (in 4 people), I slept until days passed, and when it was over, I would say that ooh was over today (in 3 people), and nothing could be done (in 4 people).

The main issue of treatment expectations (7 codes)

Seven codes of treatment expectations issue include the quality of medical staff treatment, the recovery rate, citing medication improvement, citing to improve the performance of medical staff, quality of medical services, nutrition, and access to medical facilities. The main issue of treatment expectation included the three primary categories of quality of staff treatment, recovery rate, and quality of service.

The main issue of treatment expectation, the primary categories of quality of staff Treatment

Examples include nurses and physicians, and covid 19 diseases made them more enthusiastic and allied. The nurses and the physicians take good care of me, so much misery and hardship is in the hospital (11 people). They put oxygen on the mask, which

caused my blood oxygen to drop a lot to 55%, and it was a kind of coma. The nurses did not take care of me at all. They just looked and said he was young (3 people).

The main issue of treatment expectation, the primary category of recovery rate

Examples include after receiving oxygen, I became more comfortable and got better with the hand or device that massaged (7 people), I do not know if the medication worked or not (3 people), and exercise and movement in that condition were good (4 people).

The main issue of treatment expectation, the primary category of quality of service

Examples include Lunch, dinner, and breakfast served with snacks, which were perfect (good nutrition). Trust the treatment staff (in 3 people).

The main issue of the consequences (after recovery), the primary category of appreciation of life (8 codes)

Examples include I take more opportunity and value life more (in 13 people), the sense of courage disappears, it becomes full and empty (in 10 people), I did not change the use of opportunities to do things (in 5 people), I became more carefree (in 5 people), I hoped for many things (in 7 people), I became calmer (in 5 people). I love my whole body, and I appreciate it (in 16 people).

The main issue of consequences (after recovery), the primary category of concerns (6 codes)

Examples include have shortness of breath, and I am weak in terms of body strength and fatigue (in 7 people), I still wake up several times at night with panic and shortness of breath (in 5 people), chest pain (in 5 people), and weight loss (in 10 people)

The main issue of the consequences (after recovery), the primary category of relations (6 codes)

Examples include separation from the community and the weakening of relationships for fear of re-infection with the disease and persistent respiratory problems (in 7 people), being with people who had problems with each other and my illness helped them reconnect. They rang and called on the phone and expressed their sympathy (in 3 people), I was told that your mind was broken or that you are yourself, but I do not feel that way (in 3 people), and additional relationships and house visits were reduced (in 4 people).

Discussion

The present study aimed to determine the main symptoms of the disease, perceived stress, and coping strategies in patients recovering from COVID-19 disease. The results showed that patients' symptoms during the disease could divided into three primary categories: body, psychological and social. Body symptoms include; Fever and chills, cough, nausea, muscle cramps, dizziness and weakness, diarrhea, olfactory dysfunction, shortness of breath and suffocation, headache, stress and palpitations, black bloody sputum, flaking skin, the acidity of blood, inability to eat due to inability to breathe, reluctance to water and food, pulmonary embolism, heart pain, chest pain, inability to

swallow water, could not walk, and losing weight. Among these, pain and its various aspects are of fundamental importance. Types of pain included headache, chest pain, general pain, uncertainty about pain, which was very difficult and painful for patients. These results are consistent with the findings of Chen et al. (2020); Hassan et al. (2020); Huang and Liu (2020); Huang and Zhao (2020); Lovato and Filippis (2020).

Patients' emphasis on pain has led to this symptom being considered a common factor. Psychologically the symptoms include the inability to do work, aggression, anger, giving in to symptoms, crying, wishing for death, nostalgia for children, caring for others, worrying about the death of a spouse, identity bracelet causing anxiety and apathy, high rate of fear, depression, feelings of death and futility, nervousness and fainting. Thus, fears can identified as a common factor that includes general anxiety, fear of death, fear of body injury, fear of disease transmission, fear of transmission, The deaths of others, fears of plasma injections, and fears of quarantine.

Another common factor includes sleep problems such as insomnia, insomnia due to fear of death and due to shortness of breath, oversleeping, nightmares. These results are particularly relevant to the presence of anxiety and depression symptoms in the studies of Liu et al. (2020); Brenner and Bhugra (2020); Devan and Geo (2020); and Park et al. (2020). Forte et al. (2020) emphasize the presence of PTSD disorder in normal individuals during the epidemic, but in the current study, the prevalence of the disease in patients with COVID-19 was rare. This result is inconsistent with Liu. et al. (2020); Liu et al. (2020); park et al. (2020) that consisted of PTSD in consequences of COVID-19 disease after discharge. The reason for this is the inconsistency of symptoms of PTSD in manual with patients' symptoms after discharge from hospital. Therefore, it could conclude most of the symptoms are consistent with the common injuries in times of crisis, with the typical anxieties of experiencing stressful conditions, and at most with the anxiety disorder of becoming ill.

One of the important questions raised in the present study was what is the perceived stress of COVID-19 hospitalized patients? The results of the analysis showed that participants' responses to perceived stress had two main categories, including the onset of body symptoms and severe fear of death. Severe fear of death can take various forms, such as fear of disease transmission, fear of the death of others, and even tendency to die from severe pain. This result supported by the research of Duan & Zhu (2020); Liu et al. (2020); Sun et al. (2020); Yang et al. (2020).

Another important question was about coping skills, what were the main stress coping skills in hospitalized patients? The results of the analysis showed that the main coping skills could divide into seven categories, including nutrition, medical, entertainment, mental, spiritual, helplessness, and social resources. In nutrition category, drinking fluids and eating in the hospital and in medical category relieving pain by medication, massage with the device, body exercises, and dialysis is soothing. Engaging in cyberspace, watching movies, reading books, doing works of art, using the cell phone for

entertainment and games, walking, watching TV and surfing the Internet, using Instagram, buying and selling in the stock market are entertainments that patiants used to feel relaxed on the days of illness and hospitalization. Because social networks and cyberspace have been recalled more frequently by inpatients, it is important to use cyberspace and engage with it. These results in terms of types of entertainment are in line with the results of Jafari (2020) research on patients use of distraction methods during COVID-19 illness and the result of research of Ogueji et al. (2021) on an entertainment, busyness during COVID-19 disease. The research of Ogueji et al. (2021) emphasizes the role of proper nutrition, revelation activities (yoga), an exercise in coping with the COVID-19 disease and its effectiveness in improving patients.

Ma et al. (2020) showed the effectiveness of using Budanjin movements in quality of life in patients with COVID-19 disease, which is consistent with the results of the current study on the use of massage and performing correct body movements. Regarding psychological and spiritual skills, the results of the current research emphasize on do not giving up, having a goal, enduring, wishing recovery and returning to life, trusting the medical staff, positive conversation with oneself, carefreeness, working at home, attention, and self-attainment, entertainment and activity, good body perception, self-confidence, the high will to survive and self-independence. Utilizing psychological capital can be an important aspect of coping skills. Good body perception, self-confidence, high will to survive, hope, and social supports are some of the factors that have emphasized in many studies such as Harms et al. (2018); Kim et al. (2019); and Leung et al. (2003). Especially, they have highlighted in the study of patients with the COVID-19 by Ogueji et al. (2021). On the other hand, patients who survive COVID-19 disease appear to use both emotion-focused and problem-focused skills. In the present study, using the cell phone for entertainment and games, walking, watching TV and surfing the net, using Instagram and massage, worship, prayer and recitation of the Qur'an, hope in God, hope, thanksgiving for health and acceptance of death can be considered as emotion-focused coping skills. Coping skills are among the factors that can be effective in controlling stress (Cai, 2020).

A study by Ogueji et al. (2021) emphasized hope, self-care, and self-encouragement in dealing with patients with COVID-19, and Jafari (2020) emphasized the role of prayer and hope in dealing with patients with COVID-19. Curşeu et al. (2021) also showed the effect of death reflection (a person's constant tendency to cognitive-voluntary processing of death that focuses on the positive aspect of death and includes objective behavioral goals to understand these objective aspects) on reducing death anxiety in patients with COVID -19. Of course, benefiting from psychological capital as well as social capital such as social resources (financial and emotional support by friends and relatives, media, security with family), thinking about the future of children, and phone calls of acquaintances are some of the cases in Ogueji et al. (2021) research.

In the present study, helplessness has been used negatively as a coping strategy by some patients. In other studies, it has received less attention. Post-recovery issues titled consequences, for example, perception of differentiation, have addressed by a few researchers such as Liu et al. (2020). Otherwise, in the present study, the main issue of consequences is reflected in three primary categories of life appreciation, concerns, and relationships. The primary category of life appreciation includes valuing health and the pride of being alive and maintaining the body, and the primary category of concerns focuses on body effects of COVID-19 disease after recovery such as persistence of shortness of breath and weight loss. The primary category of relationships indicates the separation from society and weakening of relationships (perceived discrimination) due to fear of re-infection with the disease and emphasizes that the latter case is convenient with the result of research by Liu et al. (2020) as well as the results of research by Person et al. (2004) on SARS.

On the other hand, the results of the present study showed that resilience is effective in terms of pain tolerance, space tolerance in quarantine, the high will to survive to cope with the symptoms and complications of COVID-19 disease, which is convenient with the results of Zhang et al. (2020). He examined the association between resilience, anxiety, and depression in patients with COVID-19 symptoms in China and found that high levels of resilience were associated with low levels of anxiety, and depression in COVID-19 patients Zhang et al. (2020). Also, Poudel-Tandukar et al. (2019) examined resilience and anxiety or depression in resettled Bhutanese adults in the United States and found that resilience inversely correlated to anxiety and depression. The result of the present study indicates the positive effect of psychological capital such as hope and resilience on coping with life problems and that psychological capital can considere as an internal protective factor for psychological well-being that is convenient with the views of Kim et al. (2019); Lutans, Yousef, and Ovalio (2007); Luthar and Cicchetti (2000); and Masten, Best, and Garmezy (1990).

In general, the results show that COVID-19 disease has adverse consequences for the individual, family, and community, and its adverse effects on the physical, psychological, social, and economic levels can be well studied. Therefore, patients try to use all their physical and mental resources to deal with it. Patients try to fight the effects of the disease through good nutrition, pain relief with medication, massage with the device, physical activity, and the use of a variety of hobbies. Benefiting from psychological capital such as good physical perception, self-confidence, the high will to survive and hope are essential aspects of coping skills. All of these components improve resilience. Emotion-focused coping skills such as prayer and beneficial body movements and problem-focused coping skills such as following up on the use of desirable therapies have used. Many patients are grateful for their health after recovery.

Patients use of cyberspace, including Instagram, is essential for entertainment. One of the important findings of the present study is that people with COVID-19 have both

positive and negative coping styles such as despair and healing (including doing nothing but passing symptoms, sleeping for days). Those who use positive coping strategies suffer less, and those with negative coping strategies, such as helplessness, recover with more pain. This study showed that the perception of support, such as support from family members and spouses, was a cure for some survivors. Of course, in the case of hospitalized patients, there is a contradiction. There are medicine and medical services in the hospital setting, but perceived support is weaker. On the other hand, medical services are partially suitable in the hospitalization setting. Still, other therapeutic factors, for example, perceived support, are weaker, so in situations where some vital signs are more stable, it is better to transfer the COVID-19 patient to home and to prepare different supports and exercise therapy.

In the current study conducted qualitatively, the limitations of the method used should consider espacially a large number of interviews shown on WhatsApp and telephone. Due to the benefit of all patients with a wide range of emotion-focused and problem-focused coping skills, it recommended that researchers clearly define the behavioral types of emotion-focused and problem-focused coping skills. Otherwise discrimination of the two concepts is controversial due to the considerable overlap of them. It is essential to prepare a step-by-step counseling-intervention package from the time a person perceives COVID-19 disease to the end of their recovery period by guiding coping with pain and creating hope, and improving a person's psychological capital. At some point in the course of the disease, patients appear to be helpless. This is when a person underestimates their resources to cope and often commits suicide due to the severity of the pain in the absence of belongingness. Therefore, it suggested that special attention pay to the prevalence of suicide in patients with COVID-19.

Conclusion

The present study showed that COVID-19 disease has a particular course, and in addition to physical, psychological and social effects, it has special consequences at the physical, psychological, social, economic and, educational levels. They included in the sixteen primary categories identified for hospitalized patients. Of course economic and educational issues were not among the goals of the current study. Therefore, it recommended to follow the finantial and educational issues and effects of the COVID-19 epidemic. The COVID-19 pandemic has severe social consequences that range from forced isolation to perceived discrimination, so it recommended to study the social effects of the disease in people who have recovered from the disease. Determining the finantial effects of COVID-19 disease for individuals and families was not the aim of this study, but it needs to be studied.

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