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COVID-19 and Its Triangle Effects on Human's Well-Being: a Qualitative Research Method Used to Collect Appropriate Data

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ABSTRACT

Background: The health-related challenges caused by the virus and the implications of the policies implemented to fight against it further cause psychological and socio-economic consequences that could threaten the well-being of the people. **Objective:** This study has been carried out to identify people's psychosocial reactions toward COVID-19. **Method:** Semi-structured interviews as a qualitative research method were used to collect data from 20 people across three countries, and content analysis was applied to interpret the data. **Results:** Overall, the results indicated that COVID-19 has had negative consequences on psychological well-being of the general population. COVID-19 has forced people to maintain social distance and has led to family conflicts in some families. Moreover, COVID-19 has caused loss of jobs and mental health problems. **Conclusion:** COVID-19 has affected people's daily life and a significant influence on individuals and society. This research demonstrates some of the ramifications in terms of psychological well-being of the general population. One of the most important findings is the importance of social life and meeting people in person, not just online. The current pandemic is influencing people's psychological well-being in a variety of ways.

Keywords: COVID-19, psychology, well-being, mental health.

1. BACKGROUND

In late 2019, a novel Coronavirus emerged in Wuhan City in China, and the world has faced significant changes since then. The new virus spread rapidly around the world and was dangerous enough to be classified as a pandemic by the WHO in March 2020. By May 2021, the virus had recorded 164,409,804 confirmed cases and caused 3,409,220 deaths worldwide (1, 2). To control the increase in number of infections and deaths, most countries implemented preventive policies, such as complete or partial lockdown, reduced social activities, social distancing, and mask-use. The strictness of the preventive policies varied significantly across the countries. The effectiveness of the policies in reducing infections and mortality has been controversial (3–5). Moreover, the health-related challenges caused by the virus and the implications of the policies implemented to fight against

it further cause psychological (6–14) and socio-economic (11, 15–18) consequences that could threaten the well-being of the people.

The relation between loneliness and social isolation with reduced health and well-being has been documented in the literature even before the current pandemic (1, 19–21). This fact has been reinforced by many studies conducted during the pandemic. In a systematic review, Salari et al. investigated the prevalence of stress, anxiety, and depression in the general population until May 2020. They estimated that the prevalence of these three mental health problems were 29.6%, 31.9%, and 33.7%, respectively (13). Another international meta-analysis of 41 studies, including 20,069 participants, found that social distancing has negatively affected the mental health and well-being of elderly (14).

A recent study from the US found significant increase in psycholog-

ical distress owing to the pandemic (6). Another study from Australia uncovered acute impact of the pandemic on Australians' mental health (12). A study from Norway conducted between March and June 2020 found that 9.0%, 4.4%, 21.9% of active adults exhibited symptoms of depression, anxiety, and sleep problems (7). In Kurdistan, Iraq, Kamal et al. investigated the prevalence of depression, anxiety, and stress in a sample of 548 adults in April 2020, reporting a prevalence of 45%, 47%, and 18%, respectively (9). In a Swedish population-based study, the prevalence of depression, anxiety, and sleep problems were, respectively, estimated as 30%, 24.2%, and 38%. The study linked the later health problems to pandemic-related health and financial stresses among respondents (11).

The COVID-19 pandemic has resulted in serious economic problems and a significant increase in the unemployment rate (15–18). It is expected that the loss of income and unemployment will have serious impacts on health and well-being. A study from the US on 500 adults found a significant correlation between job loss during the pandemic and the risk of suicide (8). Moreover, poorer physical and mental health were found among Australians who had lost their jobs during the pandemic (16). It is estimated that the increase in the unemployment rate caused by the pandemic may lead to an increase in the number of suicide cases per year worldwide (10).

2. OBJECTIVE

This study aims to investigate the consequences of COVID-19 on society's psychosocial well-being.

3. MATERIAL AND METHODS

Data collection

Semi-structured interviews were conducted with 20 participants, comprising 16 men and 4 women (Table 1). Participants were contacted by personnel at the respective universities. Five participants were living in Sweden ($n = 10$); another five respondents were in the Kurdistan region, Iraq ($n = 5$); and five more were in Norway ($n = 5$). The participants' ages ranged between 26 and 62 years, as shown in Table 1. In total, 32 people were invited to participate in the study and 23 of them accepted the invitation. Three of them did not attend the interviews due to personal issues. All the participants in this study were informed beforehand about the study's purpose and that the interviews would be recorded digitally. The interviewers carried out the interviews in the participants' mother tongues.

During the interviews, the participants had the opportunity to think for their answers and were allowed to freely talk about COVID-19's impact on their life. The interviews were performed digitally through Zoom and took about 50 minutes on average per participant. The interview started with the following open question: "Could you please explain how COVID-19 has affected your life, both in psychosocial and socio-economic terms?" In the course of the interviews, deepening of the content, clarifications, and condensing were achieved by raising more targeted issues. The conversation focused especially on

factors related to health, and psychosocial and socio-economic issues arising from the outbreak of COVID-19. Three authors of this study transcribed the interviews. Later, the final transcripts were translated from Kurdish, Swedish, and Norwegian into English. The interviews were carried out over a duration of 6 months (24th March 2020 to 12th August 2020) across five cities (Gothenburg, Oslo, Soran, Sukemanye ad Stockholm) Some of the interviews were undertaken face-to-face, while others were online. In all the interviews, the same questions were used (Table 2). However, when a targeted issue was raised, during the cross-interview, questions sometimes differed depending on the participants health literacy and general information about the COVID-19.

Data analysis

For analysis of the collected data, a qualitative content analysis method was performed with an inductive approach, as previously proposed by Graneheim and Lundman (22). The authors analyzed the transcripts to find missing parts and transcription errors. A qualitative content analysis method was used for the analysis and interpretation of the collected data.

The content analysis method primarily dealt with more objective and quantitative descriptions of manifested content (22); however, it was later extended to include interpretations of latent content. "Manifest" means analysis of what the text deals with from the aspect of content and describes what is visible, and "latent" deals with the analysis of the text that involves an interpretation of its underlying meaning.

Analysis of the responses was performed stage by stage based on Graneheim and Lundman's method (22). In the first stage, the authors read the transcripts carefully to identify the informants' experiences and conceptions of COVID-19's impact on their daily life. In the second stage, to build meaningful units, sentences or paragraphs covering topics related to each other by their content and those addressing a precise topic were grouped together. In the third stage, all the meanings units that seemed to have a relationship to each other in terms of their content and context were abstracted and grouped into a condensed meaning unit, using a description close to the original text. In the fourth stage, the condensed text was further abstracted and considered with a code. Finally, all the merged codes that pointed to similar issues were joined, which helped create subcategories, and later, categories (Table 3).

4. RESULTS

The analysis of the collected data was presented in three categories, seven subcategories, and one theme (1).

Psychosocial aspects and recommendations

Social distance

All participants mentioned social distance as the worst experience during the pandemic. One of the participants expressed that even though the economy is essential for a good living, living without social contact is equal to getting rid of life. Another participant mentioned that despite the authorities' recommendation to stay at home and the fear of being infected by the coronavirus, he tried to

Nr	Gender	Age	Occupation	Family status	Number of Child	Country
1	Man	60	Self-employed	Married	2	Sweden
2	Woman	51	Taxi Driver	Married	2	Sweden
3	Man	36	Nurse	Married	1	Sweden
4	Man	53	Interpreter	Married	3	Sweden
5	Man	58	Teacher	Married	2	Sweden
6	Man	49	Taxi Driver	Married	4	Sweden
7	Man	50	Nurse-assistant	Married	3	Sweden
8	Woman	48	Jobless	Married	2	Sweden
9	Man	40	Unemployed	Married	3	Sweden
10	Man	53	Self-employed	Married	3	Sweden
11	Man	24	Teacher	Married	0	Norway
12	Man	28	Coach	Married	0	Norway
13	Man	35	Taxi Driver	Married	2	Norway
14	Man	37	Environmental Therapist	Married	0	Norway
15	Man	26	Store Employee	Married	0	Norway
16	Man	53	Shop Owner	Married	7	Iraq
17	Man	43	School Teacher	Married	3	Iraq
18	Man	47	Taxi Driver	Married	5	Iraq
19	Man	39	Government Employee	Married	2	Iraq
20	Man	42	Shop Owner	Married	6	Iraq

Table 1. Background data of the study group (n = 20)

meet some close friends outside his house while keeping social distance.

“Coronavirus pandemic has absolutely affected all aspects of my life, but the social distance is something that had the most negative impact”.

“Of course, if we lose the social contact with each other, there are no differences between humans and animals”.

The results of the study indicate that the social distance during the pandemic caused several psychological problems, especially for some groups who culturally have closer relationships and are used to meeting other people more often than the other groups.

One of the participants expressed the importance of social contact as the driving force for life. Another participant valued social interaction and considered it extremely important. They felt it to be “valuable entity” that was available for free.

“Now, we know that having social contact is extremely important, and now we appreciate a valuable thing that we could have free of charge”.

Family conflict

Although most of the participants mentioned that staying at home during the pandemic caused many family conflicts, some considered it to be positive. Two of the participants expressed that they could work at home and could be with their family more than usual, without having any negative implication over their finances, stated as:

“Being at home with a partner, possibly with a poor financial situation, leads to more and more arguments, which could end in a serious conflict.”

“Of course, family conflicts increased dramatically during the pandemic. Violence against children and

women has increased around the world; I heard that a man killed all his family members as a result of poor finances and family conflicts during the pandemic.”

Some participants believed that the pandemic has created more family conflicts and has caused negative consequences for the relationships between family members.

One of the participants expressed that moderate conflicts existed within many families before the pandemic, and the pandemic has contributed to such moderate conflicts escalating into more serious conflicts.

“Before the pandemic when I had a negative discussion with my wife before it became a real conflict, I used to go out and have a cup of coffee, but now there is no chance to do that”.

Recommendation and information

The participants thought they did not receive the correct information about COVID-19 at the beginning of the pandemic, but the supply of information gradually became better. Perhaps the reason for the lack of information in the early stages of the spread of coronavirus was that the authorities did not provide credible information to the public.

“Initially, a top state epidemiologist said that it is a simple virus like SARS, but later they talked about a dangerous virus. In the beginning, we received information that the virus lives one week on metal and two weeks on plastic. But very soon after that, we received completely different information about the lifespan of the virus.”

However, the information and recommendations have not worked at the same level for all people. Those who had inadequate knowledge about the country's official language were more affected than the native people.

Concerning this issue, there were two different expla-

Number	Question
1	Have you received sufficient information about Covid-19?
2	Have you been forced stay at home because of Covid-19?
3	What did you do before the outbreak of Covid-19?
4	How do you evaluate the situation that led to isolation from society as result of Covid-19?
5	Has Covid-19 affected your economy situation?
6	Has Covid-19 brought or caused internal family conflict?
7	How has the pandemic influenced your mental health?
8	Covid-19 has affected human life in three contexts: health, economy, and social relationship. Which one of these three issues has affected your life more?
9	How has Covid-19 affected your social relationship?
10	How the world would look like after the passing of Covid-19?
11	How do you experience Covid-19 consequences for the future?
12	What is your suggestion for an effective way to overcome this situation?

Table 2: Questions

nations given by the participants. One group thought that authorities had provided sufficient information to the public and the possibility that one group was affected more by the pandemic compared to other groups could be the result of factors other than access to information, such as culture and lifestyle.

“Despite the authorities’ recommendation to keep distance, some groups have been meeting as usual and attended Friday prayers in hundreds.”

The other group expressed strong displeasure regarding the help they got from the government and mentioned that they had not received support from the state. They had to break the state recommendation on keeping social distance because they could not stay at home without financial support from the state.

“Our children need food; they will die of hunger if we stay at home. We get nothing from our government; of course, we will follow the recommendations if we get financial help from the authorities.”

The effect on finances and health

Loss of jobs and economic crisis

According to the results of this study, the coronavirus outbreak has affected most participants’ finances. It mainly affected those who work in service industries, such as restaurants, hotels, and tourism, as well as those who are entrepreneurs or work in the private sector as taxi drivers.

“I have a company and have 30 employees as taxi drivers, and under the corona pandemic, my business fell by more than 70%. The support I receive from the govern-

Theme	COVID-19 and its impact on society's well-being						
Categories	Psychosocial aspects and recommendations			The effect on finances and health		Hope for the future	
Subcategories	Social isolation	Family conflict	Recommendation and information	Loss of job and economic crisis	Physical and mental health	Return to social norm and relationship	Economic recovery
Code	Hug and feeling To visit close friends Meet relatives Miss colleagues No travel Social isolation New way for social contact Lots of friends Life without social contact equals death Social media is my contact path Social and economy both affected People are afraid of each other Hard to stay at home I miss my social contact	Stay at home More discussion To be together Unrealistic expectations Change of the role Return to previous conflict Feel of guilt and embarrassment Affecting our private life More talk and more conflict Fun to be with family Relationship Violence and divorce Economic shortage Impaired quality of life More and more family conflict	We must follow the recommendation Good enough information Insufficient information Stay at home without support Information in mother tongue Late of information Quarantine Confusing information Important to protect ourselves Uncertain information Culture and preventive action Here, people takes responsibility	Economic collapse Lack of resources Lack of place at hospital Irresponsible government Good support from government In my age, impossible to find job again No government support I lost my job Borrow money Discrimination No effect on my economy Corona was positive for my economy Corona does not affect students Our state supports well	Suicidal thoughts Social isolation Limitation in joy of life Anxiety Psychological imbalance Stress Fear for uncertain future Worried about health pressure on health staff Social distance is terrible Psychological stress Fear of corona Afraid of infecting my mother Shame to say i got corona When this matter is over	It needs long time Dark future Never be back in some norm Hug each other Memorial ceremony Loss of funeral ceremony Change of life style Small changes are possible New way of social live Difficult to predict future People are adaptable After Corona all will be ok again We need just a vaccine Learn the new way of live Long way to normalization Some norm never comes back Total change Some changes became permanent Digital ceremony Worry about my children's future	Uncertain future Service industry under press Should never lose the hope Pessimistic about future Hopeless about the future It will get worse in the future Cooperation and solidarity The life should go on Useless to give up We are going to live normally again Requires careful planning It needs time No choice, it must be recovered

Table 3: Categories and subcategories obtained from the data analysis

ment is almost nothing compared to my financial loss. If this situation continues, I will have to declare bankruptcy."

Another participant felt that the government was not helpful at all and their whole family got affected as a result.

"In these difficult situations, the government helps no one, and it is true that the coronavirus has affected my entire family".

The fear of unemployment due to the pandemic has become higher, especially among middle-aged people, whose chance to get back to work is almost zero.

"I work for a private company as a taxi driver. I was told by my employer that he will declare bankruptcy. He did so, and I became unemployed after 15 years of work. I'm more than 50 years old, and I have no chance to get back to work".

Physical and mental health

The victims of the pandemic are suffering from both mental and physical health problems. Some of the participants, who were already infected by the coronavirus, reported that they still had nightmares, and that their lungs have not gone back to normal, even though many weeks had passed since they were declared symptom-free.

"When I think back about the period when I couldn't breathe normally, it makes me very nervous, no...no I do not want to talk about it anymore, no...no..."

According to the participants' experiences, the pandemic created a situation where no one feels like before. Those who were infected by the virus are worried about their health in the future, and those who have not been infected are worried about getting affected by the virus.

Additionally, participants are worried if their family members or close friends could get infected by the virus.

"On the other hand, this social distance caused by the pandemic has led to a psychological situation that is extremely difficult to deal with. No travel, no parties, and no sports activity."

"I am terribly afraid of being affected by this virus, not for myself, but I am afraid of infecting my elderly mother. I have to meet her daily, she needs me; if I get coronavirus, I'm almost certain that my beloved mother will be infected."

We observed that the feeling of being ashamed to say "I have coronavirus", fear of an uncertain future, and psychological stress are among the primary concerns that affect the participants' daily life.

Hope for the future

Social norms and relationships

According to the results of this study, the current pandemic is going to change human lifestyle in the future as well. In response to the question "What will the future look like after the pandemic?", only two participants thought that the situation would get back to normal soon. Almost 90% of the participants thought it would take a long time to go back to the normal situation as before the pandemic. One of the participants believed that many unnecessary norms would disappear. While some were worried about the disappearances of traditional norms, others perceived this as a positive change.

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"I wish unnecessary traditional acting, such as long memorials for those who die, as well as unnecessary hugs and kisses. In some traditional ceremonies, you have to hug and kiss everyone who comes to the ceremony, and I would like to hug just my loved ones, not everyone".

Another participant said:

"I also hope that the present situation caused by the pandemic teaches us to take care of our environment and reduce pollution. Emissions of carbon dioxide have decreased for real during the pandemic; let our planet breathe."

One of the participants felt that the pandemic has definitely had a positive impact of the environment. It has considerably reduced global pollution, which could be beneficial to the planet. Participants had different views on what the future of the world will look like after the pandemic. The majority of them thought that the world will never be the same as before the pandemic and that some changes caused by the pandemic will become permanent. On the other hand, some participants believed that the world after the pandemic would look the same as before.

Economic recovery

Due to the impact of the pandemic on the world economy, fear of this pandemic has become greater than usual. The participants felt that the pandemic has affected both rich and poor alike, but not to the same degree. They felt that the media has not played its part in this regard and there has been a circulation of fake information.

"The pandemic has affected both the poor and rich people's economy, in many parts of the world, but not equally. I think if this disease had affected only poor people, the mass media would not have talked about the pandemic as they do today. More people die of hunger than of the corona pandemic, but this has not been highlighted in media like the corona pandemic."

According to the result although most of the participants were pessimistic about the future, there were also some optimistic voices about economic recovery in the future. They mentioned that overcoming the problems requires patience and careful planning.

5. DISCUSSION

Method discussion

The informants were picked through the snowball sampling method, as it began with a convenience sample of the first subject. Through this first subject, the other subjects were sampled. By choosing this method, we were fully aware that the respondents would be biased because the one who is chosen as the first subject will have a great impact on how the rest of the informants (23).

We chose this method because it gave us some power to decide where to start the sampling, and provided us with the possibility of managing the sampling according to the aims of the study. We had some, but not full control over the determining factors in the sampling, such as the exact age range of the informants, the exact balance of gender, ethnicity, etc. Consequently, the study has some limitations regarding the possibilities of drawing conclu-

sions regarding more detailed comparisons between the different groups of informants.

Our results indicated that COVID-19 affected society in three aspects, viz. social, economic, and health (triangle effects).

Although COVID-19's effect on economy and health may vary in different societies, the effect of social isolation and its impact on mental health seem almost similar across the countries considered in this current study. Similar to other studies (24), this study presents the substantial effects of the mental health-related consequences of the COVID-19 pandemic. The results showed quite distinctly that the norm of social distancing, resulting in isolation from friends, colleagues, and peers, was one of the major reasons for the negative psychosocial consequences mentioned by the informants. The strongest statements came from informants with a non-Western cultural background, who are used to a more collective culture with a large number of social interactions. Other studies showed that if social and physical distancing are self-motivated, it has a more positive effect impact on mental health than if it is control-motivated by, say, parental rules or lockdown initiated by the city or state (25).

Similarly, social distancing had consequences over family life too. Our data support previous studies that show how social distancing from peers, and being socially and physically close to family members can have two different outcomes. Some reported the possibilities of increased conflict, especially when combined with other situations, such as lack of income. If you have a conflict with your spouse, there is no way to hide or escape from it. On the other hand, being at home with other family members may also have an opposite, that is, positive, effect. It gives a unique opportunity to spend time with members of the family in a way that would not be possible otherwise. Other studies have shown that such mutual support may contribute to facing the pandemic's challenges more successfully. A study from Iran, for example, showed that marriage was a protective factor both for anxiety and depression (26). This is also supported by other studies (27, 28).

Some of our informants expressed distrust among the authorities and the information that was presented to them. Our study does not have enough evidence to conclude on the relationship between education and the level of information received. There are, however, other studies showing that a higher educational level resulted in lower levels of anxiety and depression, and that information received from scientific journals instead of social media results in lower anxiety and depression (29).

It is, however, clearly a key factor here that this situation requires financial conditions to be met and not affected by the pandemic. In congruence with other studies (30), the financial situation has crucial implications over the informants' mental health. Our informants are in different situations here. Some have good coverage from the state, even though they are on leave from their jobs, while others have lost their income and become almost bankrupt. The impact of the financial situation on people's mental well-being is well documented globally.

We also observed some differing contradicting views of what the future might bring after the pandemic. Many respondents believe that things will return to normal, but there was a high degree of belief in a future that would not be the same. Almost all the informants expressed that it would take a long time for the world to return to normal after the pandemic ends, if ever. Whether this was a positive or a negative view, there is still debatable. However, most of the information was pessimistic. Our study did not ask for any previous psychological status or gather longitudinal data during the pandemic. Thus, it is not possible to relate these findings to other research that looks at possible changes in people's psychological well-being before or during the pandemic (31). Studies have shown, however, that a person's previous psychological status could influence how the pandemic will affect them (31).

Not surprisingly, the fear of one's own and the world's economic situation had a direct and significant impact on the informants' psychological well-being. Most of them were pessimistic, although some pointed out that there was some equality in the way the pandemic hit, specifically from the economic point of view. Other studies have shown that the pandemic has quite clearly brought forth inequalities in the society. We see a rise in the number of homeless people and poverty, and an increase in the use of food banks for many families (32).

In general, having hope is a key factor in any individual's strategy to prevent the development of anxiety and stress-related disorders (33), and studies show that being hopeful may function as a resiliency factor in the tackling of Covid-19 as well as its consequences (34).

Limitations of the study

Some of the interviews were undertaken face-to-face, while others were conducted online. In this way, some of the non-verbal communication was lost in the online interviews. Moreover, the interviews also did not have the same context. Another limitation was the variation in language proficiency, which may cause differing abilities to obtain information from the authorities, thus affecting the ability to adjust to the situation in the best possible way. Ethnic origin and different attitudes towards the authorities may have influenced the results, but the study did not look into this specifically.

The informants originated from different countries and different ethnicities. This may as well have affected their responses in one way or the other. Most of the respondents were immigrants or had immigrant backgrounds from different countries. These differences in origins were not explored in our data analysis.

6. CONCLUSION

The COVID-19 pandemic has affected and is still affecting our daily lives. It affects individuals, societies, and even the world as a whole. This study reveals some of the adverse consequences of the pandemic when it comes to psychological well-being. A key finding is the importance of social life and meeting other people, not only digitally but also face-to-face. The study shows that the pandemic is affecting people's psychological well-being in many ways. Due to the fear of a worsened financial situation or

a challenging family situation, the informants believed that the pandemic would change their and others' lives in the long term. Some of these changes were looked upon as positive, for instance, discovering the importance of friends and social contact.

The participants in this study came from different immigrant backgrounds. The pandemic has had a significant impact on their psychological well-being. Still more studies are warranted to elucidate the differences within the various immigrant groups and the immigrant population compared to the majority population.

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