Identifying Concern and Stress of Parents, Students and Teachers with the Social Distance Planning Process and Reopening of Schools during Covid-19 Pandemic: A Qualitative Study

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A R T I C L E I N F O

ORIGINAL ARTICLE

A B S T R A C T

Background: With the closure of schools as a result of the social distancing plan, the negative emotions that individuals experience became complicated. Therefore, the present study provided a deep understanding of the concerns and stresses of parents, students, and teachers about the process of social distance planning and reopening of schools during COVID-19 pandemic.

Methods: This directed qualitative content analysis was conducted in 2020. The data for this study were collected through semi-structured interviews with teachers (n=28), students (n=20), and their parents (n=32) in Tuiserkan County. Sampling was performed by purposeful sampling method with the maximum variation. Data analysis was performed simultaneously with data, collected by content analysis method.

Results: In general, 90% of participants were stressed and concerned about the social distancing plan and the reopening of schools during Covid-19 pandemic. During data analysis, 74 primary codes, 13 sub-themes and 4 themes were obtained. The themes included predisposing factors (knowledge and attitude), reinforcing factors, enabling factors, and quality of life.

Conclusion: Identifying and explaining the concerns and stress of parents, students and teachers about the process of social distance planning and reopening of schools during infectious diseases such as COVID-19 pandemic will help policy-makers and administrators for planning and interventions related to this.

Keywords: Stress, Parents, Students, School teachers, Covid-19.

Introduction

COVID-19 is a threat to health around the world (Peng et al., 2020) and the largest outbreak of pandemic pneumonia since the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003, with a total reported higher incidence and mortality than SARS (Hawryluck et al., 2004). The outbreak of the disease was first reported in late December 2019 when the symptoms of a disease similar to pneumonia of unknown cause were identified (Nishiura et al., 2020). Since then, the number of patients has been increasing around the world, with the World Health Organization declaring COVID-19 as a public health and an international concern (Mahase, 2020).

Since the prevalence of the disease, many attempts have been made to break the transmission chain throughout the world. In China, travel restrictions were imposed in an unprecedented move to control the spread of the virus (Horton, 2020). During several days, quarantine was added to provinces and cities, affecting a total of more than 50 million individuals. Many individuals stayed at home and isolated themselves socially to prevent infection (Horton, 2020). Also, in the countries of the world, various plans have been made to break the chain of disease transmission (Qazi et al., 2020); In Iran, a social distancing plan was implemented including controlling the entry and exit of travelers, closing schools and universities, closing parks, recreation centers, and swimming pools, triple grouping of guilds and jobs for activities, scheduling services in government offices, reducing staff traffic in offices, prohibition of any gathering ceremony, maximum restriction on passenger transportation by plane, trains and buses, health controls at the entrances of cities, and fines for various individuals avoiding the social distancing plan and in cooperation with the Ministry of Health and Medical Education and other executive organizations (Official website of the President of the Islamic Republic of Iran, 2020).

With implementing transmission chain break plans, COVID-19 pandemic causes individuals to fear and worry because the future situation is not clear. Therefore, timely understanding of the mental health status of the community is essential (Xiang et al., 2020). Previous studies have shown a wide range of psychosocial effects of diseases on the health of individuals during the outbreak of infection. At the individual level, individuals are more likely to experience fear of diseases or death, feelings of helplessness, and stigma (Hall et al., 2008; Sim et al., 2010).

With the closure of schools, the negative emotions that individuals experience became complicated (Van et al., 2016), especially, one of the cases of social distancing plan for individuals who deal with schools was implemented in the country. The students who are studying at school are a large group of individuals who are involved in this plan in terms of mental health and its subsequent problems. The students' parents also faced several problems following the implementation of this plan and the closure of schools. According to the research team, most studies focus on the prevalence, and epidemiological and clinical features of the patients (Huang et al., 2020; Chen et al., 2020), the genomic features of the virus (Lu et al., 2020) and global health challenges (Rubin et al., 2009). Therefore, this study was conducted to identify the concerns and stress of parents, students and teachers of schools from the process of social distance planning and reopening of schools during COVID-19 pandemic.

Methods

This qualitative study was done using a directed qualitative content analysis approach. In the present study, semi-structured interviews were held with parents, students and teachers from various ural areas in Tuiserkan County, Iran.

To recruit suitable participants, a purposive sampling method with a maximum variation (high number of students and teachers, girls 'and boys' schools) was used, so that 19 major schools in terms of the number of students and teachers (eight

elementary schools, six middle schools and five high schools) of urban and rural areas in the County of Tuiserkan were selected. Next, the school health instructor was asked to invite students, parents and school teachers for participating in the study via publishing a message on WhatsApp. For two weeks at the WhatsApp of schools, individuals who were interested in participating in the study were recorded. Proper management was made with volunteer participants to define the proper place and time for interviewing.

The inclusion criteria were: teachers, parents and students at Tuiserkan County and endorsing an informed consent form to participate in the research. Two absences from interviews, even after conducting follow-ups via the researchers was the exclusion criterion.

Data were collected using a total number of eighty interviews (28 interviews with teacher, 20 with students, and 32 with parents) in Persian language through an interview (expert in public health). Also, another expert in public health took notes of the interviews quickly. The first seven interviews helped detect weak and vague points of view of the interview process. Each interview continued for 50–55 min.

After determining demographic characteristics of participants, three structured questions of interviewee were asked about the causes of the concerns and stress about the process of social distancing and reopening schools during the Covid-19 outbreak.: "What do you experiences about the plan for social distancing and reopening of schools during COVID-19 pandemic?"

Could you please explain to me more about this issue"? Clearly state your concerns and stress in this regard".

Then, after each interview, the audio tape was transcribed verbatim immediately along with their body language such as silence, smiling, crying, etc. Next, the transcriptions were matched with interview audio tapes. The interviews were performed from April 2020 to May 2020. Sampling continued until the researchers reached data saturation in 70th interview, but 10 additional interviews were performed to confirm consistency in data. To confirm that the similar interview process was performed, the interviews were managed in the existence of both interviewers.

Data analysis

Graneheim and Lundman method was used for data analysis (Graneheim and Lundman, 2004). After writing the text, each interview was read many times to come up with a concept and plunge into raw data. Then, semantic units were identified and abstracted and descriptive codes were given to them. After that, according to the similarities and differences, semantic units were converted into subcategories, and then correlative subcategories were located in the category. Finally, the categories were evolved into a theme. The participants were contacted again and interviews were conducted as needed to clear up any ambiguity or obtain more information.

Rigor

In this study, Guba and Lincoln methods were used to ensure the accuracy and reliability of the research (Guba and Lincoln, 1994). In this study, interviews with different people increased variation in the data in terms of gender, age, job, different areas, and level of education, which improved reliability, ability, and transferability. Data accuracy was confirmed by the researchers' combination throughout the data analysis. Therefore, each interview was independently coded by both researchers, and the data analysis was matched and discussed between the researchers to attain discrepancy and consensus. Moreover, an expert in the field of qualitative studies controlled all steps of the research.

Ethical considerations

This study was approved by the Ethical Committee of the Hamadan University of Medical Sciences (Ethical code: IR.UMSHA.REC.1399.156). The informed consent form was signed by participants after informing them of the purpose of the study, rights, potential risks and benefits, procedures to be

undertaken, the volunteering of subjects in the study and recording of their voices.

Results

The demographic characteristics of the participants are shown in Table 1. The data analysis resulted in recognizing 74 primary codes, thirteen subthemes, and four themes including: "predisposing factor (knowledge and attitude)", "reinforcing factors", "enabling factors", and "quality of life". These themes led to the development of a PRECEDE model in this study (Table 2).

Theme 1-1: Predisposing factor (knowledge)

This theme was extracted from the two subthemes of cyberspace and media effect and the existence of previous experiences with the process of social distance planning and reopening of schools during Covid-19 pandemic.

The effect of cyberspace and media

Most parents, students, and teachers considered the information and the effect they received from the mass media, including television, as one of the most important factors in deciding to implement a social distancing plan. They emphasized that the plan has reduced their stress and concerns about their health, but the thought of reopening schools despite COVID-19 pandemic causes anxiety.

"In WhatsApp, they say a lot of things that do not fit with reason, for example, the means of transmission that when a person thinks about it, he is afraid to leave his house for a long time and they increase the fear" (a 38-year-old mother).

Previous experiences

The experiences that individuals have had with other respiratory diseases have been invaluable to them. For example, last winter's flu and the fatality rate of the disease caused teachers, students and their parents worry about the school and its environment. In a way, if a student at school shows signs of the flu, he or she should stay home to reduce the stress of others and the worries of parents and teachers about others' disease.

"With the start of the social distancing plan and

what I knew from the spread of the virus, I was relieved that nothing more would happen to me, my family, and my children" (a 44-year-old mother).

Theme 1-2: Predisposing factor (attitude)

The theme included two subthemes of personal and religious beliefs.

Personal beliefs

Fear of getting sick and obsession were classified into two subthemes.

Fear of getting sick included individuals feeling stressed and anxious about getting sick when schools reopened. Examples of these are given below.

"I think if the schools are open, I will definitely get sick. They say the virus always stays and the risk of transmission is higher in crowded places" (a 33-year-old male teacher).

Obsession with cleanliness and avoiding anything because individuals do not want to get sick was one of the cases they mentioned. Many individuals considered obsession with cleanliness to be their main concern, stating that the school was not clean or timely, and that they were terrified of the school environment for COVID-19 pandemic.

"All these children come to school and they may be infected with the virus, and because the school staff cannot clean and disinfect them every hour, the disease can be transmitted quickly and kill us."
"Oh, I am very clean and I got very stressed for going to school because of this disease" (a 44-year-old female teacher).

Religious beliefs

Religious beliefs are classified into two subthemes: disease prevention and following religious instructions.

Disease prevention

Religious beliefs are very important in disease prevention.

"I was a very good person in my life, I had faith and I am not worried about diseases at all. God cares a lot for me and my family, I am not afraid of

this disease, and I will send him to school more safely if the schools reopen" (a 54-year-old mother)

Following the religious instructions

Following the instructions that the religion of Islam has set for individuals causes them not to have much stress in connection with the reopening of schools, so that following the religious instructions leads to following the protective measures against the spread of COVID-19.

"I feel that following the instructions of Islam causes me to perform behaviors that do not cause diseases and I have no stress" (a 33-year-old female teacher).

Theme 2: Reinforcing factors

The theme included three subthemes: personal characteristics, the opinions of others, and the effect of policy-makers' decisions.

Personal characteristics

The optimal physical and mental characteristics reduce anxiety and stress about COVID-19 pandemic in individuals. The healthier individuals are, the less likely they are to get sick, and if the schools reopen, they will not have to worry too much. Also, if individuals have good mental health, this will have an increasing effect on physical health and they will experience less anxiety and stress during COVID-19 pandemic and the plan to distance and reopen the school.

"Because my child and I have good physical and mental health, I am not afraid if the schools reopen. I'm not worried because a healthy person will not have a problem" (a 54-year-old father)

Opinions of others

The individuals commented that they were affected by the opinion of others about the social distancing plan. The opinion of others makes them afraid of the outbreak of the disease when the schools reopen and makes them prefer to stay at home to protect their health and that of their families if the schools reopen. The parents are also affected by other family members and other parents, and their stress of reopening schools

increases.

"Our neighbor, whose daughter is my daughter's classmate, told me that she would not send her daughter to school at this time if the schools reopen because she was afraid and she was also very worried. so, I am sure I will not do this, too" (a 45-year-old mother).

Policymakers' decisions

After the return of education to normal conditions during COVID-19 pandemic, many individuals, especially teachers who receive their salaries from the government, stated that they were very worried and stressed that they would go back to school and get sick with bad consequences for them. Therefore, although they are stressed, they are affected by government decisions due to the situation, and any decision made in the country's corona headquarters should be implemented.

Theme 3: Enabling factors

The given theme was extracted from the two subthemes of trust in the health care system and doubts in the education system.

Trust in the health care system

Trust in the health care system was classified into three subthemes: fear of medical errors in diagnosis, lack of specialists and sufficient equipment in the country, and concern about the seriousness of the issue.

Fear of medical errors in diagnosing the disease

One participant said: *"I think sometimes the physician and the rest of the medical staff can make mistakes and make individuals feel bad because the stress and worry is so much more when my children go to school and get sick and they tell me they're nothing"* (a 46-year-old mother)

Lack of specialists and sufficient equipment in the country

Another participant stated: *"I'm worried about going to school again because we are not provided with school protective equipment at all and I have to buy it myself"* (a 40-year-old female teacher)

Concerns about the seriousness of the issue

"I'm worried that Corona is in a very bad condition. If they do not tell us, I will let my children go to school and they get sick" (a 36-year-old father)

The doubts about the education system

The lack of a system for education and integrated supervision over the implementation of protective measures were also classified into two subthemes.

Lack of a system for education

"I am very stressed because in school, students are not given consistent and continuous training on how to behave protectively against COVID-19, yet, they say it is better for them to go to school" (a 38-year-old mother)

Lack of integrated monitoring of the implementation of protective measures

"There is no place in the organization that monitors protective measures, and recently they say that officials of education and health centers visit and warn schools that do not comply, but I am still worried that this is temporary and does not last" (a 46-year-old male teacher).

Theme 4: Quality of life

The theme of quality of life was extracted from four subthemes: "satisfaction, acceptance, fear of lack of progress, and feeling of remorse".

Satisfaction

Satisfaction consisted of two subthemes: stresses and anxiety.

Stresses

"The issue of distancing and adhering to it, as well as the reopening of schools, is so stressful that I do not want to do anything anymore as if I was helpless" (a 44-year-old female teacher).

Anxiety

"If they say that I should go to school again, I am very stressed under these conditions and I think the reopening of schools is very annoying for me" (a 14-year-old female student).

Acceptance

Acceptance included cases in which individuals were reluctant to think about COVID-19 and stated that it had become a part of their life and that they should deal with it.

"I have accepted this disease, which always exists and lives with us. I don't pay much attention anymore. I got tired and told my child that they can go to school" (a 26-year-old mother).

Fear of lack of progress

"With social distance plan and closure of schools, I had no progress in my studies and entrance exam and I was very worried about this" (a 17-year-old female student)

Feeling of remorse

"Ever since this distancing plan was implemented and I could not go to school, I had suffered from remorse because I could not study at home, I hated myself and I was upset" (a 16-year-old male student).

Table 1. Demographic characteristics of the participants

Characteristics	Categories	N (%)		
		Teacher (n=28)	Student (n=20)	Parent (n=32)
Gender	Male	12 (42.8)	9 (45.0)	15 (47.0)
	Female	16 (57.2)	11 (55.0)	17 (53.0)
Age group (year)	7-12	0 (0)	2 (10.0)	0 (0)
	13-18	0 (0)	18 (90.0)	0 (0)
	19-29	4 (14.3)	0 (0)	2 (6.2)
	29-39	10 (35.7)	0 (0)	10 ()
	39-49	6 (21.4)	0 (0)	18 ()
	Over 50	8 (28.6)	0 (0)	2 (6.2)
Level of education	No schooling	0 (0)	0 (0)	2 (6.2)
	Primary school	0 (0)	2 (10.0)	6 (17.8)
	Middle school	0 (0)	8 (40.0)	8 (25.0)
	High school & Diploma	2 (7.2)	10 (50.0)	10 (31.3)
	University	26 (92.8)	0 (0)	6 (18.7)
Marital status	Married	23 (82.1)	0 (0)	30 (93.8)
	Single	4 (14.3)	20 (100)	0 (0)
	Divorced or widowed	1 (3.6)	0 (0)	2 (6.2)
Areas	Urban	8 (28.6)	8 (40.0)	13 (40.6)
	Rural	20 (71.4)	12 (60.0)	19 (59.4)

Table 2. Themes and sub-themes extracted from the study

Themes	Sub-themes
Predisposing factor (knowledge)	- Cyberspace and media effect - Existence of previous experiences
Reinforcing factors	- Personal characteristics - Opinions of others - Policy-makers' decisions
Predisposing factor (attitude)	- Personal beliefs - Religious beliefs
Enabling factors	- Trust in the health care system - Doubts in the education system
Quality of life	- Fear of lack of progress - Feeling of remorse - Satisfaction - Acceptance

Discussion

This study was the first endeavor to identify the concerns and stress of parents, students, and teachers about the process of social distance planning and school reopening during Covid-19 Pandemic. Data analysis led to the extraction of 13 sub-themes and 4 themes including predisposing factors (knowledge and attitude), reinforcing factors, enabling factors, and quality of life, which indicated anxiety and stress in individuals.

Consistent with other studies (Bao et al., 2020), our study showed that there was anxiety and stress in the participants. One of the most stressful situations is the unpredictability of the situation to control the disease and the serious risk of coronavirus. These, along with some misinterpretations and misinformation, can increase anxiety among individuals (Bao et al., 2020). On the other hand, challenges and stress can cause disorders such as anxiety and depression (Dar et al., 2017). Due to this and similar epidemics, in such cases, there are serious concerns such as fear of death among individuals; severe stress and anxiety can occur among individuals who have to stay at home while they have been active in the past and educated outside the home (Lu et al., 2020). Fear and anxiety due to possible coronavirus infection can be destructive and can lead to psychological disorders and stress in individuals. Fear and stress are beneficial in the short term for the body to deal with stressors (Barrett et al., 2019), but if this fear and stress persist in the long run, it is destructive and leads to a weakened immune system and reduced ability of the body to fight diseases such as coronavirus (Yaribeygi et al., 2017).

The theme of predisposing factors (Knowledge) had two sub-themes of the effect of cyberspace and media and the existence of previous experiences in critical situations. The individuals receive a lot of information from different sources and gain experience, process the information obtained and act in different abnormal ways than normal methods. Previous studies have shown that understanding the previous risk and experience have a significant effect on the measures that individuals take when they are at risk (Rubin and Wessely, 2020; Seeger et al., 2018); for instance, when individuals can easily accept the risks or feel less dangerous when the risk is under their control, they can experience and be trained in the management and skills that deal with it. Also, if the risk is simple, and a reliable source raises it and informs the individual about it, that risk should not be hard and unfamiliar. But if there are limited ways to control the risk, the risk is unknown, the information about it is provided by unreliable sources, it is new and strange, or it affects children, it is less understood, less tolerated and less experienced, individuals will be very worried about it (Gentili et al., 2020). A study results showed that the dissemination of misinformation, including incorrect information, insufficient information, opportunistic misinformation (intentional or unintentional) and sometimes even expired information can be potentially dangerous and threatens public health, and increases anxiety and stress of individuals (Zhang et al., 2020).

The theme of reinforcing factors included three sub-themes of personal characteristics, opinions of others and decisions of policy-makers. The majority of participants emphasized that they had good physical and mental health to deal with coronavirus. Similar to some other studies, a study by Rahmatinejad et al. also confirmed that individuals who think they have better physical and mental health, experience less anxiety and stress about coronavirus (Rahmatinejad et al., 2020). This can be explained by the fact that in critical and difficult situations, individuals listen to the opinions of others to make a decision with their help. Most of the participants mentioned that they are affected by the opinions and decisions of policy-makers and the government. Therefore, the government should, in addition to exploiting good governance, use all the capacities of the governmental and non-governmental sector, transparency of procedures and information, accountability to community, law enforcement for all, consensus based on popular belief, structural

pressure, social motivation, and effective strategies to deal with Covid-19 pandemic with a strategic vision and flexibility in the current situation to create a more general value in social distance, and overcome the crisis of Covid-19 Pandemic (Ghasemi et al., 2020).

In the present study, the theme of predisposing factors (attitude) had two sub-themes: personal and religious beliefs. In this study, the participants noted that the personal beliefs they have in their life make them less stressed and anxious. In addition to classical medical treatments, many cultures have organized methods for dealing with physical and mental diseases. In this regard, religious faith and belief have always been important and treatment based on faith in God as a supernatural force has a long history among followers of different religions. As man's insight and belief in religion and belief in divine principles play a decisive role in improving the course of the disease, reducing pain and increasing the tolerance of the complications of the disease; the use of these potential and valuable forces against diseases is important because faith in God and religious belief calm individuals during difficult and unbearable periods, such as facing diseases (Ahmadi Abhari, 1996).

The study results showed that the theme of enabling factors included two sub-themes of trust in the health care system and doubts in the educational system. In order to control the crisis in this situation, the government needs coordination, classification and cooperation among different organizations, including organizations involved in individuals' health. For coordination, the medical team should be integrated with other resources. For classification, the cooperation of government, social organizations and individuals is needed to defeat coronavirus (Ghasemi et al., 2020).

The statistics show that with Covid-19 Pandemic, if the relevant organizations are not involved in education and adherence to health protocols, individuals turn to the wrong methods of treatment, not appropriate preventive measures, which in turn leads to death due to lack of

knowledge (Banerjee, 2020).

The theme of quality of life included four sub-themes: satisfaction, acceptance, fear of lack of progress, and feeling of remorse. The participants were concerned with the reopening of schools and the social distancing plan in two ways: either accepting the issue or satisfying with it. The result of the previous study showed that individuals who give up may cause problems and stress for other children in the family and their parents (Lee, 2020). Nonetheless, individuals who accept the issue and conclude that they should protect their health and that of their family in any situation, take precautionary measures and in any situation show less worry and stress than other individuals in critical situations, including Covid-19 Pandemic. With the implementation of the social distancing plan and the closure of schools, students and their parents have become more stressed and worried about the educational problems that their children will face due to these holidays; moreover, because they cannot do anything special under these conditions, they often cannot teach their children the lessons and feel remorse. A study results showed that students and parents were afraid of school closure due to Covid-19 Pandemic and their concern in this situation was further increased (Prem et al., 2020).

It seems that in addition to attempts at various levels to prevent the spread of disease and other worrying conditions, special attention should be paid to the mental health issues of the community, especially for those individuals whose educational future is at risk. Screening plans should be provided for psychiatric disorders, including anxiety and depression in individuals due to the severity of the vulnerability and the lack of available information to understand the current situation; building trust also seems essential (Lu et al., 2020).

One of the strengths of this study was that this was the first innovative study in this field. However, one of the limitations of this study was that it did not receive the opinions of planners and policy-makers in this regard.

Conclusion

Identifying and explaining the factors affecting the concerns and stress of parents, students, and teachers about the social distance planning process and the reopening of schools during infectious diseases such as Covid-19 Pandemic will help policy-makers and managers for planning and interventions. The mental health facilities should be considered during Covid-19 Pandemic so that individuals have less stress and anxiety during this period.

Conflict of interest

Authors declare no conflict of interest.

Acknowledgements

Authors' contributions

We hereby declare that all authors have contributed to this work. Written the manuscript, M.A and M.B and S.S.M and J.Z.C.T.; contributed to the calculations, S.B and M.A and M.B. All authors read and approved the final manuscript.

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