

Perception of medical resources during home isolation due to direct contact with confirmed positive patients with SARS-CoV-2

CRISTINA SAVU, IULIANA ARMAŞ

University of Bucharest, Faculty of Geography
cristina.savu@s.unibuc.ro

Abstract. The COVID-19 pandemic started in December 2019 in Wuhan, China and the first cases in Romania were registered in February 2020. Those in the front line in the fight against the pandemic, the medical staff, were the most affected from a psychologically and physically point of view. This study examines the perception of medical staff in isolation after coming into contact with confirmed positive patients with the SARS-CoV-2 virus. The study identifies psychologically differentiated patterns of reaction and behaviour based on social and professional determinants.

Keywords: *perception, anxiety, social distance, SARS-CoV-2*

BACKGROUND

In May 2020, a patient diagnosed with intestinal occlusion due to a malignant colon tumor was admitted to the general surgery department of an important hospital in Bucharest, Romania. The patient came by transfer from a gastroenterology clinic, where she had been hospitalized for abdominal pain, being on cancer treatment. Arriving at the surgery department, the patient is identified positive for SARS-CoV-2 virus infection and dies shortly afterwards as a result of the associated diseases. In this situation, all medical personnel in direct contact with the patient in question, approximately 30 people from the clinics of gastroenterology, surgery, operating room and intensive care, are subjected to PCR-SARS-CoV-2 testing, starting on the first day, the 7th day and the 14th day of contact. The present study aims to identify the mental state and perceptions of isolated medical staff at home for 14 days. Fortunately, due to the wearing of individual equipment according to the protocol adopted by the hospital, no medical staff in this situation was infected with the SARS-CoV-2 virus.

METHOD

The research is based on semi-structured interviews with 5 open-ended questions. The questions were aimed at capturing the conditions experienced by the medical staff involved in contact with a patient infected with the SARS-CoV-2 virus. Out of the 30 people considered direct contact with the patient confirmed positive, 24 people answered this questionnaire. The professional categories that responded to the interview were primary care physicians (4.16%), resident physicians (12.52%), nurses (41.66%), nurses (25%), stretchers (16.66%). Of these, 75% are women and 25% are men, aged between 28 and 55 years.

The interviews were conducted on-line, through the WhatsApp application, or face to face, between June 15, 2020-July 2, 2020.

The questions on which the interviews were conducted are listed below:

1. When you found out that you were in direct contact with a positive confirmed patient with SARS-CoV-2 infection, what were your first thoughts?
2. What conditions did you go through when you found out that you could be contaminated or that the test could be positive?

3. What emotions did you experience when you waited to get the SARS-CoV-2-PCR test?

4. Do you believe that you have taken all precautions responsibly, for the safety of yourself and your family during the exercise of your duties?

5. Has the head / management of the unit or colleagues been interested in your health?

RESULTS

Based on the interviews, the following emotional states of those isolated at home were identified as a result of a possible infection with the SARS-VOC-2 virus:

- Increased anxiety from the first moment of the news of the infection.
- The alternation of fears and worries about the possibility of infection throughout the isolation.
- Periods of intensification of negative emotions that led to a deterioration of the mental and physical condition of the interviewed subjects, to a state of continuous alert, with behavioral reflection.

- Prevalence of concern for family or oneself.
- Differences in status in the manifestation of social cohesion and support from colleagues and hospital management.

In order to be analysed, the open responses were classified into response categories summarized in the following tables, supplemented with suggestive examples.

Regarding the question “What emotions did you experience when you waited for the SARS-CoV-2 PCR test to be performed?”, Most people experienced fear, up to fear (84%), tab 1. Others (16%) experienced anxiety, impatience, emotions, such as butterflies in the stomach (4%), while 4% felt alone (especially women) or looked at the situation with detachment (4%), predominantly female. In an analysis of the distribution by sex, men went mainly through states of anxiety and impatience when finding the answer (16%), while women went through more nuanced states of fear, loneliness, sadness (68%).

Table 1. Frequently asked questions:

“What emotions did you experience when you waited for the SARS-CoV-2 PCR test?”

R1	a	b	c	d	e	f	g	h
Frequency (%)	40%	8%	4%	16%	20%	4%	4%	4%

Where: a) Fear, b) Fear of the unknown, c) Sadness, loneliness, d) Impatience, anxiety, e) Fear, f) Strong emotions and somatizations like: “butterflies in the stomach”, g) I looked forward to the result, h) Detachment

Here are some examples that illustrate the above statements:

- “I felt very sad, alone, as if it wasn't me ..., I didn't represent anything for the other colleagues, except for a number, an application code ..., as if I was a stranger you wouldn't want to have anything to do with ...”
- “a very unpleasant experiment, I sat with fear in my chest ..., fear and worry ..., feelings of panic and fear ..., feelings of horror ...”
- “the feeling was of fear, not necessarily for me, but for those at home ..., anxiety, fear, frustration ...”

Some respondents focused more on fear of procedure, emotional “freezing,” or even interest / curiosity (men). E.g: “I waited with interest ..., a little uneasy, because I understood that the harvesting procedure is quite unpleasant ..., a feeling of detachment ..., I had no anxiety, but no happiness ...”

To the question: “How did you feel when you found out that you could be contaminated if the test was positive?” most people (40%) experienced fear and powerful emotions such as fright, while others experienced fear and worry (24%) at the thought that they may be contaminated. Few people 4% felt angry, especially women, and experienced feelings / emotions described as terrible and somatizing (“I felt very bad”, 24%). Only a small proportion of those affected experienced an 8% sense of acceptance, and they were all female.

16.66% of the interviewed people showed a feeling of guilt towards the family, that it could contaminate them, and these people were all female. A higher percentage of men went through fear and anxiety (44%), while women went through more depression (28%), a small part accepting the situation as such (8%).

*Table 2. Frequency of answer categories to the question:
“How did you feel when you found out that you could be contaminated if the test was positive?”*

R2	a	b	c	d	e	f	g
Frequency (%)	20%	20%	24%	4%	8%	16%	8%

Where: a) Dissatisfied, b) Scared, c) Fear, worry, d) Angry, e) Terrible, desperate, f) Depressed (sometimes with somatization), g) resigned

We present below some selected examples that reproduce the respective states as expressed by the respondents:

- “a little scared, afraid for the family ..., I froze, very scared, afraid that I might make my family sick ..., I felt terrible, my family could be contaminated, I am being directly responsible ..., fear and concern for one's own health but also that of the loved ones ...”
- “at that moment, it was even harder, when I found out that I was in direct contact ...”
- “if I sneezed sometimes, I thought that I must have been positive ..., sometimes I didn't seem to have a taste anymore ..., I tested the perfumes ..., what can I say: an indescribable fear, it continues ...”
- “For a short time at first, I was anxious for fear that if I became infected, I could spread the disease if I was asymptomatic, if I became infected and symptomatic I would give in to God's will ...”

All these answers were given predominantly by women, respectively 76.66% of the total women

who answered the questionnaire, but also by men (stretchers – 16.66%). Those who felt guilty about their family were mostly nurses (41.66%), between 35 and 48 years old, with 1-2 small children at home. The subject who showed a completely altruistic attitude was a 32-year-old unmarried female doctor. Few answers were as follows: “Honestly, I felt safe as long as I had the necessary protective equipment ...”, “I accepted this possibility without anxiety or fear ...” These types of responses belonged to subjects aged 35-40 years, married, nurse, without children, both women and men.

The next question was about the emotional states experienced by the subjects. Negative emotions that overwhelm us at some point, such as those in the event of a pandemic, also have consequences for our behavior and relationships with others. Identifying negative emotions allows for better control of them with physical and mental benefits.

*Table 3. Frequency of answer categories to the question:
“What were your first thoughts when you found out that you were in contact with a confirmed positive person?”*

R3	a	b	c	d	e	f	g	h
Frequency %	8%	48%	4%	12%	12%	4%	8%	4%

Where: a) Sadness, b) Thinking about family, c) Panic, d) Security emotions, e) Contamination, f) Feelings of fear, g) Feelings of fear, h) No thoughts

Taking into account the fact that 75% of the interviewees are women, it is observed that most of the women were thinking about the family (48%), and of these a percentage of over 16% had reasoning that showed a strong attachment to the family, for example, “I have to stay away from my family, and I can't stand separation.” Among men, 12% had first thoughts about family or experienced feelings of panic or fear. Only 4% of those surveyed did not experience any thoughts or emotions, perhaps indicating a mental block as a result of the shock created by the news of the possible danger of infestation, so they could not think of anything.

Some of the responses also highlighted proactive “test me” behaviors. The first thoughts identified by the participants were in the following register: “I kept in mind the protection measures taken and the people I came in contact with, I identified all those I had contact with, to warn them and to isolate myself”. Rational thoughts such as “I thought I was equipped at the entrance to the operating room, and the possibility of infection was still lower” were expressed by women doctors, aged 30-32.

One person, a woman, a 32-year-old doctor, who lives alone, with the possibility of isolation, experienced optimism and confidence: “I was glad

that I could rest more at home, and if I had come out even symptomatic, I would have received it just like any other disease, God willing, obviously it would not have been a pleasure, but I would have resigned myself to the disease and taken treatment”.

Answers to the question “Do you think that you have taken all the necessary precautions with responsibility for the safety of your family?” are shown in Table 4, showing that only a small percentage, 24% of respondents consider that they have not been adequately protected.

Table 4. Frequency of answers to the question:

“Do you think that you have taken all the necessary precautions with responsibility for the safety of your family?”

R4	no/ not always	yes
Frequency (%)	24%	76%

Regarding the ratio between women and men, it is 3 / 1.6, women showing a more responsible behavior (22.22%). Taking into account the professional categories, the doctors stated that they took all the precautions and behaved in a proportion of 50%, and the nurses reached a share of 85%, probably also as a result of the closer contact on who have it with the sick, 25% stretcher bearers and 25% nurses.

Examples of answers are given below:

- “No, it could have been better, but I chose to be with my family, because it was too late to make any decision to isolate myself from my family.”
- “yes, I think I took the necessary measures, the best, I equipped myself properly, according to the established protocol”, “I isolated myself in my room.”

- “I have tried and continue to try to protect myself and those around me as much as I can, this is the only way we can keep this very aggressive virus under control, which has changed the meaning of life for all of us to an unimaginable extent. !”
- “not always ... the suit is impossible to wear for more than 2-3 hours ... I preferred the thought that it is possible to get infected than to have syncope or lipotomy due to lack of air!”

To the question “The head of the unit / the management of your unit or your colleagues were interested in your health, how did you feel during this period of isolation at home?” the answers drew attention to a situation of disharmony and attitude split at the level of the hospital units in question, showing a weak valorization of certain professional categories.

Table 5. Frequency of answer categories to support questions:

“Did the head of the unit / management of your unit or colleagues take an interest in your health?”

R5	no	yes
Frequency (%)	54.16%	45.83%

The vast majority of subjects with the position of nurse, stretcher bearer or nurse experienced a lack of support from management and colleagues. Respondents argued their lack of support as follows:

- “no, the management probably stayed at home!” Suggesting a hostile attitude toward the management in response to the perceived indifference, or
- “no one called me, I was very sad” or “no, unfortunately, which made me even more depressed”, highlighting disappointment and loneliness.

On the other hand, all the doctors, and especially the resident doctors, answered in the affirmative to this question, indicating the support of the hospital management and colleagues.

This result is not only a reflection of prejudices and attitudes still operational in society, but also draws the attention of hospital managers to the inconsistency and lack of cohesion of work teams. On the other hand, we have only one positive example, that of the *Anesthesia Care Team* – operating room, which shows solidarity, cohesion and support for their colleague, a nurse, in isolation at home (“yes, colleagues called me every day to

encourage”). At the level of gender reaction, young men, doctors, mostly showed a proactive attitude, stating that they kept in touch with their bosses or colleagues, while 55.55% of women had a passive behavior, withdrawal and loneliness.

CONCLUSIONS

The case study looked at the conditions experienced by medical staff in an exceptional situation of possible COVID-19 contamination due to direct contact with a patient confirmed positive for SARS-CoV-2 infection. The interviews revealed a growing concern and constant anxiety in most of the respondents, although most of the interviewees considered that they were adequately equipped during their interactions with the patients.

There was a predominance of negative thoughts, fears and worries throughout the period of isolation at home, especially among female subjects, who preferred to withdraw from the community. Looking at things from the perspective of social relations, with colleagues, with direct bosses, a difference was observed depending on the professional status of the subjects. For example, all doctors responded that they kept in touch with their colleagues and direct bosses (they called and were called by them), while the other professional categories involved (nurses, nurses and stretchers) had negative experiences regarding the relationship with their bosses or colleagues. The latter were even more concerned about family safety.