The coronavirus pandemic's socio-psychological paradox

Larisa Litvinova1,*, Atsamaz Kaloyev1, Lyubov' Gubareva2, Emma Abakarova1

1Stavropol State Medical University, 310, Mira str., Stavropol, 355017, Russia
2North-Caucasus Federal University 355017, Pushkina street, 1, Russia

Abstract. The multifaceted nature of the new socio-psychological stressors encountered during the period of isolation make this investigation necessary. The aim of this research is to discover the expression of the social factor and its effect on the level of children's communication within the family. The coronavirus pandemic has forced much of the planet's population to go into self-isolation, which for the overwhelming majority means staying with their families, who are experiencing the same state of fear. In the coronavirus pandemic the modern, globalised world has gathered all three (biological, social, existential) in one. This results in a paradoxical psychosocial situation in which a person needs space in order to formulate new defensive mechanisms, yet has to share that space with family members. The external threat, the coronavirus pandemic, is complemented by the psychological threat posed by the family – a double threat which places at risk not only physical health, but also psychological state, which requires “ecology of communication”. The levels of social and psychological fear depend on freedom of movement, territorial limits, the ability to choose to communicate or not (“contact hygiene”), levels of trust within the family, types of interaction between all family members regardless of age, and the definition of personal space.

1 Introduction

The coronavirus pandemic is currently the dominant source of stress in people's lives, and as we know, different levels of stressor activity have different effects on a person's behaviour, depending on his or her level of stress resistance [15, 23]. According to Taylor S. and Tuominen J. and coauthors high levels of resistance to stress are characterised by low levels of emotionality and a capacity to calmly cope with the stressor's influence [21, 22].

The coronavirus pandemic is notable for the mass nature of the threat that it poses to the populations of a number of countries and continents according to the World Health Organization (2020). Like any other infectious disease, coronavirus presents a biological threat, but, like any pandemic, it is also socially mutable in nature. In the modern world, enveloped by social networks and with practically any information easily accessible to a mass audience, the pandemic's social aspect is no less dangerous than its biological risk
factor [5]. Vollmer C. and coauthors discovered that along with the anxiety-inducing general atmosphere of social fears, the majority of families with school-age children, have found themselves up against an additional emotional stress – distance learning, a new form of forced interaction and help with schoolwork, as well as the need to complete tasks with which a teacher would previously have helped [4, 9, 24]. The multifaceted nature of the new socio-psychological stressors encountered during the period of isolation make this investigation necessary.

The aim of this research is to discover the expression of the social factor and its effect on the level of communication within the family.

The social threat of coronavirus stems from a sense of fear that is formed on a massive scale. Psychologists understand fear as an internal state caused by an imminent calamity, real or imagined [19]. According to Leontyev A. N. fear is a negative emotion which is experienced by both humans and animals [12]. It is expressed with wide eyes, a sense of numb paralysis, and an urge to flee or hide from the cause of fear [13]. According to Yuri Shcherbatyk (2011), all fears fall into one of three categories: 1. biological, 2. social, or 3. existential [20]. The first group comprises fears related to a biological threat to human life [1]. Fears and worries associated with changes in personal social status fall into the second category, and the third is essentially the fear of the temporal inevitability of death and the limits of human existence. As a rule, the three fears are manifested separately, in accordance with the stressor, but in the coronavirus pandemic the modern, globalised world has gathered all three in one.

At the moment it is impossible to single out a single dominant type of fear. People fear for their physical health – a biological fear. Everyone is afraid of being infected with coronavirus, afraid of lying motionless, dependent on a ventilator, dying [9, 12]. No less powerful is social fear: stay-at-home orders have led to a sharp drop in economic activity worldwide. Many people have already lost their jobs and status as a family breadwinner, a change in social status, the loss of workplace contacts, the devaluation of professional personal qualities. The modern human is equally vulnerable to third-category fears: most of us have started to question our philosophy of existence, the values of faith, the impermanence of time, the pointlessness of human existence on Earth, and our own physical helplessness. Video clips on the internet and social networks confirm and amplify these fears, to a greater or lesser extent actively reinforcing them.

If we put this aside, in terms of the operation of the human body, fear actually plays a defensive role, working as a positive force to preserve life and health, so to say that fear harms people would be fundamentally untrue according to Jašarović, E. A. and Rifat A. [11]. What is interesting about the current phenomenon is something else: in order to overcome fear, people (and animals) need to hide, take cover and develop a new form of reaction to a threat which they cannot remove single-handedly [17, 17].

The nature of the coronavirus pandemic has forced the implementation of stay-at-home orders for the majority of the Earth's inhabitants. The resulting circumscribed existence, surrounded by close friends and family in a closed-off territory has resulted in an additional social fear. The psychological paradox lies in the fact that every individual person needs space to form new defensive mechanisms against the biological threat, yet has no choice but to share space with family members. The external biological threat, the coronavirus pandemic, is automatically augmented by the psychological threat created by the people around. The “double strike” attacks both physical health and psychological state.
2 Materials and methods

The method of investigation chosen were scientific research and observations carried out in Russia (Moscow, Moscow Region, Stavropol and Stavropol Region) from March to June 2020.

3 Results

It is important to take into account an area’s level of urbanisation when analysing the problem of the limited space available to families. According to the official Covid-19 infection statistics on 20 May 2020 (Table 1), the spread of the virus was much greater in Moscow than in the surrounding Moscow Region. Rosstat numbers place the population of Moscow at over 12.5m, with a population density of 4880 per km2. The population of Moscow Region at that time was 7,690,863, with a density of 173.5 per km2 according to Rosstat (accessed 13 March 2020).

The number of people infected with Covid-19 is significantly different, even though the percentage of Moscow Region’s population living in urban areas stands at a relatively high 81.37% according to the Coronavirus statistics for Russia on 20 May 2020. It is important to note that this analysis focuses on social connections specifically on urban areas where the population is resident in detached houses with gardens rather than on the countryside [8].

Table 1. The percentage of patients with Covid-19 in urban and the countryside areas on 20 May 2020.

| Region                      | Infected to date | Infected today | Deceased to date | Deceased (past 24hrs) | Recovered to date |
|-----------------------------|------------------|----------------|------------------|-----------------------|------------------|
| Moscow                      | 152,306          | 2699           | 1726             | 75                    | 36,936           |
| Percentage of total population | 1.218           | 0.021          | 0.13             | 0.0006                | 0.295            |
| Moscow Region               | 30,091           | 903            | 285              | 14                    | 3897             |
| Percentage of total population (Moscow Region) | 0.39           | 0.011          | 0.003            | 0.0001                | 0.051            |

4 Discussion

Based in the social aspect and the forms of fear mentioned above, we can conclude that the residents of Moscow Region, including city residents, have an advantage that the share with the people of any provincial city, which is that much of the area's housing, alongside apartment blocks, is made up of detached family homes. In addition, it was in the Soviet era and remains commonplace in the post-Soviet period to own an allotment, either within the city or beyond its limits. Surprisingly, detached houses with gardens have become a kind of buffer zone for emotional surges and negative tendencies during isolation. There are several reason for this:

1. Residents of houses with gardens have the opportunity to breathe fresh air throughout the period of isolation, which is essential to the prevention of any infectious disease;
2. A garden pushes back the walls, enabling residents to stroll outside without breaking the rules of isolation;
3. Both children and adults had expanded borders within which to interact and find a comfort zone without violating other family members' territory; 
4. The period of isolation brought a rare opportunity to catch up with essential work in the home without time limits; 
5. Families spent time outdoors in exactly the same way as at the weekend: playing games and having barbecues.

In reality, daily life in these families became less comfortable only for children, who were required to undergo distance learning and do homework with the help of their parents. Comfort levels did not change otherwise. Families were not hemmed in by the walls of their apartments, social contact with neighbours remained active within the bounds of the limits (although this was not especially critical), and children were able to run and play in the fresh air.

Another fact connected with physical activity that is worthy of note is that self-isolation began in early spring (mid-March) – the season of spring cleaning, gathering winter debris, planting flowerbeds, preparing lawns, spraying trees and planting seedlings. Anyone with a job would not normally have enough time for all of this, but with the unlimited time afforded by the situation, people were able to undertake physical activity in the fresh air, and in doing so strengthened themselves against biological and social fear [14]. Psychologically speaking, the focus switched from the global pandemic to the fine detail of a private property.

Practical observation of families living in detached houses and statistical trends show that the greatest socio-psychological burden from the Covid-19 pandemic falls on residents of apartments with little space for the family. Urbanisation of this type damages the transformation of socially-important roots. Tightly-knit social connections and community behaviour have existed since the days of hunter-gatherers, when people worked on the land and needed the physical help of their families and neighbours. A similar model remained in effect within families: the older and stronger always strived to help the younger, who in turn offered what help that they could in order to become part of the collective or socium.

Apartment living does not enable these connections to develop, as the space available is limited, and there is no work which must be done together. Even when working on their own property, when neighbours are engaged in their own activity, that activity can be regarded as collective, for they can exchange news with their neighbours, and once the work has been done both children and adults can spend time together playing and picnicking, while remaining on or near their own property. This results in strong social connections between people who are not connected economically, by blood or in any other way. These are free, communicative, social relationships, completely safe from the point of view of psychological status. Apartment-dwellers have no way of strengthening relationships, which leads to closed relationships between neighbours and within the family itself and creates a need for clearly defined personal borders and a disciplined “contact hygiene”, which can carry a social risk for children and adults.

“Contact hygiene” is directly related to our “ecology of communication”, ie. a rethinking of our socio-psychological safety with regard to both the people around us and members of our family. Contact hygiene means maintaining the psychological borders of childrens’ personalities, with every member of society individually deciding where those borders lie.

According to an analysis of current socio-economic standards and demands, we can propose the following as ways for families living in apartments to follow ecology of communication while subject to stay-at-home orders:

1. Define and select an individual “stronghold” in our physical location. If that is a small apartment, that stronghold could a favourite armchair, sofa, bed etc. Children might opt for a spot under the table, a wardrobe, an improvised shelter, or indeed any improvised
space with clearly defined borders. The most important condition is that everyone in the family should have a stronghold, and that it should be regarded as untouchable.

2. Develop rules governing movement within the stay-at-home territory in order to take the strongholds into account.

3. Refrain from forcing communication with family members within the territory, and when communication is necessary, find an emotionally positive form of interaction. That could mean playing games, cooking together, helping out with chores or conversations on neutral topics.

4. Limit discussion of the coronavirus pandemic with children or in their presence. Formulate a safe ecology of contact for children by involving them in play or reasonable work.

5. Limit your own interaction with social networks and with people who intensify your fear or sense of oppression.

Following these recommendations will enable families with limited space to quickly adapt to the difficult conditions which the pandemic has created. These preventative measures are necessary as the new academic year begins, in many regions in the form of distance learning.

Residents of the adjacent low-rise area have used the period of the pandemic to form and strengthen their social capital [3]. Without underestimating the significance and danger of Covid-19, members of families of this type have been able to reorient their interaction towards the wider community (tidying the garden and yard, preparing seedlings etc.). Discussions with neighbours have focused not on financial problems, but on general themes such as the forthcoming harvest and pest control in gardens. Socially, this new level of interaction is promising, trusting and harmless in terms of personal anxiety [16].

5 Conclusion

The following can be concluded with regard to the aforementioned fears when examining the changes in socio-psychological status in families resident in detached houses:

1. Biological fears are less dangerous for all members of the family, thanks to sustained activity, free movement around the property, the absence of hypodynamics, and the chance to do sports, which prevent infectious diseases and reduce fear of illness. Complying with recommendations during the pandemic does not cause additional fear; all family members regard them as new rules of life [2, 7].

2. Social fears are cancelled out by new forms of communal interaction of children with friends and family members in an unbounded territory. Family members can be alone or together without infringing personal space. In fact, they form new forms of interaction in the open air, learn new games and develop new ideas for creativity.

3. Psychologists regard existential fears and the most complex, but they actually become less of a threat for families in detached houses during this epidemiological threat and time of year. The sight of flowerbeds and gardens in bloom creates an internal hope for a quick solution to problems. The change of life and death is psychologically easier with spring as an example, and with an understanding that the pandemic will end sooner or later. There is an internal acceptance of external factors and the development of an adaptive mechanism for defence on a psychosomatic level.

Observations showed that the socio-psychological paradox of the pandemic brings out the necessary level of freedom with a need for support from friends and family, which in turn brings complete trust. It is worth noting that, unfortunately, having a long list of connections on social media does not fulfil that role [6]. More reliable with regard to psychological defence mechanisms were free community connections, based on common
interests outwith work, school, study and economic relations. I. Ronald F. in 2018 concluded that happiness depends primarily on range and freedom of choice [10].

To sum up, I must point out that levels of social and psychological fear of children depend on freedom of movement, territorial limits, the ability to choose to communicate or not (“contact hygiene”), levels of trust within the family, types of interaction between all family members regardless of age, and the definition of personal space. Families where these are present have the best chance of overcoming the psychological and biological hurdles presented by the pandemic. Families living in apartments will be able to support their child and help him or her to adjust to the academic workload. Parents who create an environment like this reduce their children's emotional burden and help them to overcome the psychological hurdle created by today's pandemic.

References

1. B. Beit-Hallahmi, Mortality 17(4), (2012) DOI: 10.1080/13576275.2012.734986
2. S.F. Bloomfield, A.E. Aiello, B. Cookson, C. O'Boyle, E.L. Larson, American Journal of Infection Control 35(10), 27–64 (2007) doi:10.1016/j.ajic.2007.07.001
3. W.M. Bowler, D.J. Brass, Journal of Applied Psychology 91(1), 70–82 (2011) DOI:10.1111/j.1944-5520.2011.01343.x
4. V. Buha, A. Jovanović, L. Miletic, R. Lečić, S. Mitrović, Conference: Proceedings of the 5th IPMA SENET Project Management Conference (SENET 2019) DOI: 10.2991/senet-19.2019.10
5. M. Chambon, J. Dalege, J. Elberse, F. van Harreveld, A psychological network approach to factors related to preventive behaviors during pandemics: A European COVID-19 study (2020) DOI: 10.13234/osf.io/cd9m6
6. B.V. Chaudhari, P.P. Chawle, International Journal of Research in Pharmaceutical Sciences 11(SPL1), 469-471 (2020) DOI: 10.26452/ijrps.v11iSPL1. 2814
7. R. Gayatri, S. Lavanya, M. Hussain, J. Veslin, Asian Journal of Biology (2020) DOI: 10.9734/ajob/2020/v9i330086
8. J.L. Henderson, The Wisdom of the Serpent (2020) DOI: 10.2307/j.ctv131bwfw.6
9. R.F. Inglehart, Cultural Evolution: People's Motivations Are Changing, and Reshaping the World (Cambridge University Press, 2018) doi:10.1017/9781108613880
10. E.A. Jašarović, A. Rifat, MATEC Web of Conferences 53 (2016) DOI: 10.1051/matecconf/20165302002
11. S. Jones, I. Finlay, Distance Learning. Education in Palliative Care, 179-200 (2007) DOI: 10.1093/acprof:oso/9780198569855.003.0019
12. A.N. Leontyev, Demands, Motives and Emotions (Publishing house Mosk. un-ta. Moscow, 1971)
13. R. Lynn, The American Journal of Psychology 10(3), (1968) DOI: 10.1016/B978-0-08-011524-5.50007-2
14. Th. Noor, The Journal of Research on the Lepidoptera 51(2), 963-974 (2020) DOI: 10.36872/LEPI/V51I2/301150
15. N. Parekh, A. Deierlein, Public Health Nutrition (2020) DOI: 10.1017/S1368980020003031
16. E. Parrish, Perspectives In Psychiatric Care 56(3), 485-485 (2020) DOI: 10.1111/ppc.12571
17. S.H. Saadat, M. Izadi, N.J. Jafari, et al., International Journal of Travel Medicine and Global Health 8(3), 91-92 (2020) DOI: 10.34172/ijtmgh.2020.15
18. Yu.V. Shcherbatov, Rid Yourself of Fear (Eksmo, Moscow, 2011) ISBN 978-5-699-45683-3
19. H. Susanto, F-Y. Liu, W. Caesarendra, F. Ibrahim, Applied System Innovation (2020) DOI: 10.3390/asi3030037
20. S. Taylor, C. Landry, M.M. Paluszek, T.A. Fergus, D. Mckay, G.J. Asmundson, Journal of Anxiety Disorders 72, 102232 (2020) DOI: 10.1016/j.janxdis.2020.102232
21. J. Tuominen, P. Sikka, A. Lieberoth, COVID-19-pandemian vaikutukset suomalaisten elämään: COVIDiSTRESS-hankkeen väliraportti (2020) DOI: 10.17605/OSF.IO/6C9W5
22. C. Vollmer, S. Goreth, R. Mader, M. Platz, C. Oberhauser, I. Plattner, Project: COVID-19 Distance Learning (2020) DOI: 10.13140/RG.2.2.13143.29607
23. S.M. Yasir Arafat, S. Kumar Kar, M. Marthoenis, P. Sharma, Psychiatry Research 289, 113061 (2020) DOI: 10.1016/j.psychres.2020.113061
24. S. Zegans, L.S. Zegans, Behavioral Science 17(5), 407-19 (1972). DOI: 10.1002/bs.3830170502.