Living in a High-Rise Apartment Building: Fears and Anxieties of Young People

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Abstract. The article deals with the problem of high-rise construction of residential buildings in the context of the emergence of fears of living in them. The urban environment transforms human biological fears, while simultaneously creating conditions for the emergence of new contradictions that can generate urban fears. Living in multi-apartment high-rise buildings changes the space of social interactions with neighbors and affects human satisfaction. In 2020, we conducted a sociological study, the object of which was the young residents of Yekaterinburg (Russia). Based on the results of in-depth interviews (n = 10), the article argues that traditional (life-threatening) fears of life on a high floor remain in the minds of young people. However, at the same time, the experience of living on a high floor causes the emergence of new fears, which significantly expand the repertoire of youth fears: fear of using gas stoves, difficulties in selling, mistrust of housing developers, etc. In the context of the intensification of high-rise construction, the presented public opinion of the townspeople can act as a significant factor in the design of buildings and urban space.

1. Introduction

High-rise buildings are becoming one of the main factors which determines the trends of “vertical” development of urban space [1]. It has an impact on society and individual city residents, because it creates three types of consequences of the high-rise residential building maintenance: economic, social and environmental. [2] High-rise “residential machines” can become both a successful living environment and a social nightmare (with a high level of crime, riots, a sense of insecurity, etc.), which the residents will seek to escape to find more attractive areas [3].

Similarly, the trend towards the construction of high-rise apartment buildings is becoming a factor in the modern housing stratification of Russian society [4] – “comfort” and “business class” houses, elite apartment buildings coexist in cities with “economy class” houses, as well as "khrushchyovka" and “stalinka” buildings. It has negative impact on the residential and social infrastructure of the city. In general, it creates negative conditions and risks of urban high-rise lifestyle that can generate social fears.

Fears arise in a situation of real or perceived danger. The study of fears and anxieties of young people show that fears differ depending on what they are aimed at (fears for yourself; for family and loved ones; fears for the city and place of residence; for the country and fears of a societal nature, etc.). This forms the “repertoire of fears”[5] of the studied social group.
Fear as a type of emotion has a biological nature. As human society develops and the urban environment becomes the main human habitat, biological fears undergo inevitable changes, but remain as the basis of social fears. As a result, psychologists, economists and sociologists are not the only ones who study the influence of urban development on the indicators of the quality of human life: representatives of the construction industry and real estate services also turn to research on social fears of residents of high-rise buildings.\[6\]

The unique nature of urban space in general and high-rise housing in particular lies in its ability to form contradictions that are associated both with resolving, overcoming certain social fears and with creating new "urbanistic" fears.

One of the most common fears is the fear of isolation \[7\], which is based on the biological fear of death. The long history of this fear is associated with the inability to survive outside the tribe, but in modern megalopolises it is transformed into the problem of loneliness, awareness of current events, communication within the living space. The desire to move upward can be considered within the framework of the avoidance syndrome theory, which was described by M. Kantor as self-distancing. Nevertheless, the hope of gaining a spatial and physical distance from society is often destroyed, and self-isolation, even on a "prestigious" floor, maintains a sense of anxiety. \[8\]

An important contradiction occurs: a person gets the opportunity to live in isolation, strives for the privacy of his living space and personal life, but, at the same time, loses contact with the surrounding society, including neighbors. According to V. Vakhstein, many studies proclaim the "death of the neighborhood" as a result of the pervasive influence of urbanization \[9\]: support between friends and neighbors is limited to small favors, weak social ties reinforce general indifference, and lack of conflict goes hand in hand with neglect. Neighborhood, which F. Tönnies \[10\] attributed to the communal type of relations, becomes public. The results of L. Nguyen's research \[11\] show that interaction of neighbors in public areas has negative impact on people's privacy, the feeling of safety and cleanliness of the shared spaces. Hence, sociological studies often provide information for planners and designers on how to design high-rise apartment buildings that support social interaction.

In turn, designers are actively willing to receive feedback: W. Wu and X.J. Ge distinguish five aspects of design in high-rise buildings (space division, universal design, security design, landscape design and decoration design) and show how regulation of public space design can contribute to the sustainable development of consumer preferences \[12\].

Another biological fear is associated with the control of the territory, the fear of attack. According to P. Keedewell, living in penthouses with panoramic windows and magnificent views of the city has become prestigious because it satisfies the primitive need to observe the territory and surroundings.\[13\] However, living high above the ground is unnatural for humans, which gives rise to various phobias among residents of high floors. R. Gifford highlights such fears as accidentally falling out of the window, intrusion of strangers into the elevator, earthquakes, etc. \[14\] Russian researchers confirm this idea by identifying the top 5 phobias of residents of high-rise buildings \[15\]: fear of flooding downstairs neighbors, fear of using the elevator, fear of fire, fear of being watched, fear of falling out.

Thus, high-rise urban development activates certain fears and creates conditions for the emergence of stable and stereotyped ideas characteristic of a large number of urban residents, as well as individualized fears. Therefore, people's lifestyle and its main categories, as well as the convenience and functionality of a residential urban environment, should be crucial for the building design: selecting and setting the parameters of apartments and various types of residential buildings, as well as their typological diversity \[16\].

2. Materials and methods

Russians began to form stereotypes about living on a high floor with the emergence of Soviet high-rise buildings. The older generation actively continues to reproduce outdated ideas about swaying skyscrapers, the lack of water on the upper floors, leaking roofs, and the impact on health (dizziness, high blood pressure, depression, etc.), which are not true in relation to modern construction
technologies. Young people, in turn, are developing a new experience of living in high-rise buildings, which partially represents social stereotypes, but also reflects modern tendencies of living in high-rise buildings.

Our work is aimed at studying the young people’s social fears associated with the choice of an apartment on a high (above 10) floor as a place of residence. The study is of an exploratory nature, as it touches on little-studied aspects of urban construction and aims to identify the main trends in the young people’s attitudes towards life on a high floor. We conducted 10 focused interviews with Yekaterinburg residents aged 18-29, 4 men and 6 women. Their experience of living on a high floor - from 2 to 7 years (average - 3.5 years). Apartments were owned (7 informants) or rented (3 informants). The guide included three blocks of questions concerning fears at the stage of choosing an apartment for living, the advantages and disadvantages of living on a high floor, as well as the repertoire of fears that informants experienced in connection with these conditions. The average interview duration was 30 minutes.

3. Results and discussions
Living on high floors has always had supporters and opponents. This division continues to be present and cause discussions on social networks, on the websites of developers, etc. However, there is a tendency for the increase in the conscious choice of high floors among young people: 3 project participants were purposefully looking for such an apartment (“I had no doubts whether it would be comfortable to live because I love high floors”, f, 20), 4 did not reject this option at the selection stage. At the same time, a division into “high” and “very high” floors appeared among young people, and it was the latter category that was rejected as a choice of residence: “There were doubts about the higher floors, so we didn’t choose the highest one” (m, 21). One of the reasons for this division is the fear of heights: “Maxim [husband] wanted an even higher floor, but for me.... I'm too ... scared, so we stopped on the 13th floor. It’s still too high for me” (f, 28).

We also note the emergence of the opinion that living on a high floor is neither good nor bad, but “normal, I don’t feel much difference” (m, 25). This may indicate the formation of acceptance of high-floor living as the norm of the modern urban lifestyle. Almost all participants noted that the choice of living on the high floor was the result of weighing the “pro” and “con” arguments. That is, the choice was made after searching for a compromise between advantages and fears.

A fairly stable (even standard) set of arguments was listed as the advantages of living on high floors: beautiful view (“A great view, I would say. The city, the sunset. Very beautiful”, f, 19), more sunlight (“The main advantage is that we have a lot of light, it’s also a sunny side – it’s very light and warm – I just love it”, f, 28), fewer insects, much less dust (“looks like there’s less dust, less odors and noise”, m, 25), no street noise (“less noise, since you can’t hear passers-by under the windows”, f, 22), more environmentally friendly (“no harmful effects from the roads”, m, 21). Characteristically, all these ideas have firmly entered the concept of high-floor living. Even those people who did not have the experience of high-floor living at the time of selecting an apartment were guided by these parameters (“There were doubts about the high floor, since I used to always live on low floors, most of my relatives did too, I didn't have to deal with high floors much.”, f, 22).

However, new arguments for living on high floors were emerging: low foot traffic allows residents to leave strollers and bicycles in the corridors; advertising agents are less likely to reach residents, because “they will simply be too lazy to go to high floors to advertise their products” (f, 30); windows can be left open without fear of burglary; apartments are less likely to be robbed “burglars can break into the first floor apartments, but they are unlikely to enter the tenth floor”, f, 19); residents can choose not to use curtains if there is no building across the street (“It is also quite difficult to see something in the windows”, f, 30).

It is also important to note that there were motives associated with the idea of prestige of high floors and the image of the city as a high-rise space: “I had no fears because I was tired of a private house and I wanted to try living in the city. Moreover, I have always associated the city, especially Yekaterinburg, with high floors and therefore I wanted to live there” (f, 19).
When informants described their thoughts at the moment of selecting an apartment, they tried to avoid the word “fear”, preferring “qualms” or “doubts”. “There were doubts: I don’t like heights. I had qualms, first of all, that the elevator might be faulty” (m, 28), “There were doubts about choosing the high floor only because of the fear that the elevator would break and that we would have to walk to the 22nd floor” (f, 26).

As an exception to this rule, informants mentioned only two fears: fear of heights and fear of children falling out. These two fears forced the informants to find ways to overcome them as quickly as possible. “There was only a fear for the children - that they might fall out of the window, but we changed the windows and immediately installed the safety restrictors, plus we do not allow children to approach the windows” (f, 28). “If we talk about high-rise buildings in general, I used to be scared to be on the balcony even on the 5th floor. However, we are talking about an unglazed balcony. I feel quite comfortable on the glazed balcony” (f, 30).

The interview results show that young people partially reproduced the stable (in many respects already “classic”) top fears of the high floor residents. At the same time, these fears were not prominent, they had a rather low intensity. This is most likely due to the fact that young people assessed the risk as unlikely, considered the situation that caused this fear as hypothetical and happening to someone else. Once again, we note that informants, as a rule, immediately provided options of resolving and overcoming fears when they talked about them. Here are some examples:

1. Fear of flooding the neighbors: “We didn’t think about it at all. We were flooded, even twice, by the same people. We went up, reported, checked - they looked at what the problem was, and fixed everything” (f, 28). “I was afraid once, when my plumbing broke, but, thank God, there is a high-quality tiled floor in the bathroom, so I didn’t flood my neighbors” (f, 19). “Flooding, yes, I even had a thought to include this in the insurance. But it seems that the pipes are still normal, I bought a washing machine with a leakage sensor” (m, 25).

2. Fear of fire: “I’m afraid of a fire, because the evacuation will not be the fastest, and if the way down is blocked, it will be even more difficult to get people from the roof” (f, 26). “I am a little worried that, in the event of a real fire, it will be quite difficult to evacuate from a higher floor if it is impossible to get out of the apartment through the front door” (m, 21). “I’m not afraid and I think about it no more than before. We have a smoke detector in every apartment of our building, and as soon as it goes off in one apartment, a fire alarm goes off throughout the building. So this moment is carefully monitored and the response is very prompt” (f, 22).

3. Fear of falling out: “I’m not afraid to fall out either, the railing is high, I don’t drink alcohol, and it’s unlikely to happen by accident” (m, 28). “I’m not afraid to look down through the window. If I open the window and bend over a little, then I will definitely get scared from the fact that I can fall out of the window. But I’m not scared when windows are open for airing” (f, 30).

4. Fear of elevator not working: “The elevator didn’t work 3-4 times. Well, I sorted my purchases from the store into two piles - what must be taken home, and what can be left in the car” (m, 25).

Moreover, the experience of living on a high floor creates new fears, which, in our opinion, are not among the “classic” ones, since they do not pose a direct threat to the life or property of residents. However, an increase in these less significant fears can reduce the quality of life on the high floor and the overall satisfaction of residents. These fears include:

1. High-rise buildings with gas stoves: “The top floor in a high-rise building with gas is definitely causing me discomfort. If it is necessary to leave the building quickly, people from the upper floors may find themselves in a difficult situation that could cost them their lives” (f, 30).

2. Additional cost of lifting bulky items and building materials up the stairs to the high floor: “we want to change the linoleum, and 4-meter linoleum doesn’t fit into our elevator, so we will have to pay extra” (f, 28).

3. Difficulty using the elevator: “sometimes it is annoying when it stops on each floor, it really lengthens the process. You go down - you pick up everyone, you go up - you see them off” (m, 25). “You need to schedule additional 5-7 minutes to wait for the elevator if you are in a hurry or you made
an appointment” (m, 25), “if time is short, then it is better to run up the stairs and not wait for the elevator” (f, 20).

4. Downstairs neighbors smoking: “Like everyone else, I want to open the windows to let some fresh air in. But sometimes cigarette smoke comes along with fresh air from all the floors below. Unfortunately, the smoke always goes up, so the situation on the lower floors seems to be more favorable” (f, 30). Sociologists in Europe and the United States actively conduct research which explores the locations, tacit rules on acceptable locations, experiences and governance of smoking in apartment buildings.[17]

5. Total spread of high-rise buildings: “I like low-rise buildings more, not rural, but not higher than 3-4 floors. The city looks cozier or something, the sky is open. Otherwise, you live in some kind of a canyon or well, you can’t see the sky, the sun” (m, 28)

6. Possible difficulties during the sale: “I haven’t thought about selling yet, but there may be many people who do not want to live on high floors. I don’t understand whether this is an advantage in selling or not” (m, 25)

7. Destruction of neighborship ties: “I know little of my downstairs neighbors and neighbors from another apartment; we rarely see each other, so I do not personify people who live above me or below me” (f, 19). “While you are in the elevator, you pick up everyone along the way, even if you entered it alone. High floor - lots of neighbors” (m, 25). This trend is spreading around the world. E. Warner and F.J. Andrews, researchers from Melbourne, believe that social connections with neighbors are hampered by physical and social barriers common to apartment buildings: frequently changing contingent of residents, tight corridors, lack of infrastructure for families with children, etc. However, they also found that events and organized house groups improve neighborhood relationships and increase social well-being of residents.[18]

8. Less likely to leave the house for minor matters: “Before, I could go down the stairs at any moment without any problems. Now, it’s too much of a hassle to run down from the high floor if there’s an elevator malfunction” (f, 22). The daily life of high floor residents is transforming, which necessitates a change in the functional content of buildings, the emergence of delivery services, the formation of a new sense of affection and a change in the concept of “home”. [19]

9. Distrust in builders (developers): “I didn’t face anything like my friends had when the window frame fell out during the repair because it was not fixed. Someone had drafty windows, I heard that they had to fix them” (m, 25). The solution to the problem of reliability and durability of building structures is one of the priorities in the design of high-rise buildings, which takes into account the regional specifics of building locations, among other things.[20]

4. Conclusions
Based on the analysis, we draw the following conclusions.

The construction of modern high-rise residential buildings presents designers and architects with new challenges. A high-rise building is a complex communication space which determines the development of the social and personal living environment of residents. With the intensification of high-rise construction, all market participants want to improve the liveability of their development and are prepared to collaborate across discipline to achieve such outcomes [21].

People need time and resources to adapt to life in a vertical urban space. In particular, there is a change in attitude towards high floors, and stereotypes tied to the peculiarities of Soviet high-rise buildings are disappearing.

Social fears are created by situations, conditions, processes that are perceived by a person as potentially dangerous. High-rise buildings, due to their “unnatural” state as a human habitat, contradict the idea of safety at first. In this regard, overcoming fears of living on high floors is based on both personal positive experience and the absence of a negative informational context (about falling houses, loss of life during fires, etc.)

Young citizens tend to accept high-rise housing as the norm of modern living, which is accompanied by the development of everyday practices that allow them to overcome emerging fears.
Young people take an active role in changing urban space in accordance with their expectations and finding cities that provide the living conditions they need [22].

Research in the field of urban sociology allows us to take public opinion into account when designing future buildings, which, in turn, increases the success of adaptation processes and the residents’ quality of life.

5. References

[1] Petrov A and Petrova D 2018 Economics of high-rise construction: The feasibility of skyscrapers building in the Russian cities E3S Web of Conferences 33:03056
[2] Smirnov O O 2019 The impact of high-rise buildings on the city and the urban environment Russian Journal of Housing Research 6(1) 45-64
[3] Van Soomeren P, Klundert W, Aquilué I and de Kleuver J 2016 High-rise in trouble? Learning from Europe Journal of Place Management and Development 9(2) 224-40
[4] Litvintsev D B 2020 Evolution of multi-storey residential construction through the prism of sociology Urbanistika 2 88-99
[5] Narbut N P and Trotsuk I V 2013 Russian students’ main fears: the results of an empirical study RUJD J. of Sociology 4 66-78
[6] Ballen L 2018 Health effects of living in a high rise High Rising Vegas URL: https://highrisingvegas.com/featured/health-effects-of-living-in-a-high-rise/
[7] Popov Ja 2015 Main social fears in a modern Russian humor Bulletin of the Moscow institute of linguistics 2 86-91
[8] Litvintsev D B and Osmuk L A 2020 Vertical dimension to the city: psychosocial aspects of living in high-rise apartment buildings Society: sociology, psychology, pedagogy 6 26-30
[9] Vakhshshtayn V 2018 "Have you seen our cat?" How Neighborhood Arises Postnauka URL: https://postnauka.ru/longreads/92134
[10] Tönnies F 2016 Gemeinschaft und Gesellschaft.: Grundbegriffe der reinen Soziologie (Gebundene Ausgabe – 1)
[11] Nguyen L, Van den Berg P, Kemperman A and Mohammadi M 2020 Where do People Interact in High-Rise Apartment Buildings? Exploring the Influence of Personal and Neighborhood Characteristics Int. J. of Environmental Research and Public Health 17(13):4619
[12] Wu W and Ge X J 2020 Communal space design of high-rise apartments: A literature review J. of Design and Built Environment 20(1) 35-49
[13] Keedwell P 2017 Headspace: The Psychology of City Living (Aurum Press)
[14] Gifford R 2007 The Consequences of Living in High-Rise Buildings Architectural Science Review 50(1) 2–17
[15] Morozova T 2013 In St. Petersburg, scientists are studying how the floor affects a person's lifestyle Vyborg Gazette URL: http://vyborg-press.ru/articles/17305/
[16] Generalov V P and Generalova E M 2020 Influence of human lifestyle on creating typological structure of residential urban environment IOP Conf. Ser.: Materials Science and Engineering 775:012045
[17] Willand N and Nethercote M 2020 Smoking in apartment buildings Spatiality, meanings and understandings Health and Place 61:102269
[18] Warner E and Andrews F J 2019 “Surface acquaintances”: Parents’ experiences of social connectedness and social capital in Australian high-rise development Health and Place 58:102165
[19] Ghosh S 2014 Everyday Lives in Vertical Neighbourhoods: Exploring Bangladeshi Residential Spaces in Toronto's Inner Suburbs. International J. of Urban and Regional Research 38(6) 2008-24
[20] Alekhin V, Avdonina L, Antipin A and Gorodilov S 2018 Assurance of reliability of high-rise building structures at design stage as exemplified by residential building complex in Yekaterinburg J. of Physics: Conference Series 365(5):052005
[21] Holdsworth S, Kenny D, Cooke J and Matfin Sh 2019 Are we living with our heads in the clouds? Perceptions of liveability in the Melbourne high-rise apartment market Energy Performance in the Australian Built Environment. Green Energy and Technology (Springer, Singapore) pp 181-98

[22] Antonova N, Abramova S and Polyakova V 2020 "Cities are Good for Us": Assessment of Urban Attractiveness by Students IOP Conference Series: Earth and Environmental Science 459(3):032090

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