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# Societal Changes in the European Union after the end of the Covid-19 Pandemic Original Articles

- ✓ SOCIETAL CHANGES IN THE EUROPEAN UNION AFTER THE END OF THE COVID-19 PANDEMIC
  - ✓ FUNCTIONALITY OF THE FAMILY SYSTEM OF PROFESSIONAL FOSTER PARENTS IN THE CONTEXT OF SOCIO-DEMIGRAPHIC CHARACTERISTICS
    - ANALYSIS OF PSYCHOLOGICAL ASPECTS OF LONE WOLF ATTACK IN SLOVAK REPUBLIC. THERE'S A METHOD TO THE MADNESS
      - ✓ INFECTIOUS DISEASES TRANSMITTED BY FECAL-ORAL TRANSMISSION AND THEIR SOCIAL ASPECTS
  - ✓ CURRENT EXPERIENCE AND PERSPECTIVE OF THE REFUGEE CRISIS IN WESTERN SLOVAKIA IN THE LIGHT OF WORLD EVENTS IN 2022
    - ✓ IMPACT OF MEASURES DURING THE COVID-19 PANDEMIC ON THE SURVIVAL OF SENIORS IN SELECTED SOCIAL SERVICE FACILITIES
      - ✓ PSYCHOSOCIAL CONSEQUENCES OF ARMED CONFLICTS ON SOCIETY
      - CLINICAL AND FUNCTIONAL ASSESSMENT OF THE RISKS OF FALLING IN THE ADULT COMMUNITY AS A FACTOR OF SOCIAL ISOLATION AND LACK OF SELF-SUFFICIENCY IN SATISFYING THE NEEDS
      - ✓ REFLECTION OF THE REASONS FOR THE EMERGENCE AND EXPANSION OF MARGINALIZED ROMA COMMUNITIES IN SLOVAKIA AFTER 1990
        - ✓ LECTURES AND TRAINING IN ESSENTIALS OF EMERGENCY MEDICINE IN A RURAL HEALTH CENTRE IN KENYA
          - PREVALENCE OF DIASTASIS M. RECTUS ABDOMINIS AND PELVIC FLOOR MUSCLE DYSFUNCTION IN POSTPARTUM WOMEN

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# **Editorial**

# Societal Changes in the European Union after the end of the Covid-19 Pandemic

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The coronavirus pandemic has devastated the lives of millions of people around the world. The scale of the crisis was such that only the countries united in the Union could provide an appropriate response to citizens and lead the process of international mutual assistance to ensure the supply of safe vaccines to all corners of the world. COVID-19 has led to a crisis in various sectors of public life, such as the crisis in the healthcare system, which provoked a socio-economic crisis in the European Union; The COVID-19 pandemic has called into question the basic principles of the functioning of the EU, in particular freedom of movement within the Schengen area or solidarity in response to common threats; the ability of the EU institutions to provide timely assistance or at least coordinate the responses of Member States in crisis situations; vulnerability of the EU through an information pandemic caused by excessively low-quality false content spread through social networks, influencing public sentiment and political decisions.

But at the same time, the world had to change and it happened. This is the first pandemic fought in the digital age. The EU Digital COVID Certificate has become a global standard. The EU Digital COVID Certificate was an important innovation in Europe's response and quickly became a global standard that helped restore safe international travel. The EU has developed a global standard: in addition to 27 EU Member States, 48 countries and territories outside the EU have joined this system.

Accelerated digitalization and the transition to remote forms of interaction between employers and employees have significantly changed the sphere of social and labour relations. This concerns forms of employment, legal regulation of labour activity, issues of motivation and stimulation of work, working conditions, standardization of labour processes and personnel management procedures. The pandemic has become a factor that has had a significant impact on public sentiment. The results of sociological research indicate that citizens are under conditions of stress and frustration. The adverse social consequences of the pandemic manifested themselves in the growth of public discontent and protest sentiments. This requires proactive efforts to ensure constructive public dialogue and trust. In turn, the active use of digital technologies, the Internet, and social networks during the pandemic has given rise to the spread of false information and information influencing public opinion. The diversity of assessments has led to polarized public opinion on issues related to COVID-19; increases the risk of conflict, violence and human rights violations and threatens long-term prospects for strengthening democracy, human rights and social cohesion.

With another negative consequence that awaited the European Union after COVID-19 and which negatively affects psychosocial well-being and well-being at both the individual and collective (society) levels - forced displacement from combat zones, problems of a socio-economic and humanitarian nature, poverty, stress and mental disorders It was the full-scale Russian armed aggression on February 24, 2022 that disrupted the economic and social development of both the Ukrainian state and has a catastrophic negative impact on the life and health of its citizens, as well as on European countries and their socio-economic situation.

The war in Ukraine has a significant impact on the countries of the European Union: firstly, these are the socio-economic consequences associated with financial, humanitarian and armed support for Ukraine; the energy crisis and restrictions due to sanctions against the russian federation; secondly, security consequences, the essence of which is that the threat of aggression and the example of the use of force against a neighbouring country creates an unstable situation in the region, which influences political relations between European countries, as well as their foreign and security policies; thirdly, the socio-political consequences reflected in changes in public attitudes towards the conflict, changes in interethnic relations, the emergence of new social groups and associations, as well as an understanding of the impact of the conflict on political identity; and, most importantly, the migration consequences caused by a large number of refugees from

Ukraine is in European countries, and therefore needs socio-economic, humanitarian and psychological support from European states and societies.

Our current issue of the journal attempted to publish scientific findings concerning the deepest issues that the countries of the European Union are faced with and to which society is forced to respond in modern times.

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# Functionality of the Family System of professional foster Parents in the Context of socio-demigraphic Characteristics

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Original Article

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#### **Abstract:**

**Objective:** The aim of the present study was to analyse the perceived functionality of the family system in relation to selected socio-demographic characteristics in professional foster parents.

**Design:** Comparative and quantitative research.

**Participants:** The research sample consisted of 203 professional foster parents.

**Methods:** The functionality of the family system was measured using the Family Adaptability and Cohesion Scale - FACES IV. The Family Communication Scale and Family Satisfaction Scale was administered to determine communication and satisfaction with the family system.

**Results:** The results indicate that professional foster parents perceive the family system as functioning, healthy, with good communication and are satisfied with its functioning. The results of the statistical analyses did not confirm the association between the perceived functionality of the family system and the number of biological children, the number of children placed in the professional foster family so far and the education of the professional foster parent. Men and women differed in their perceptions of family cohesion, with women perceiving families as more cohesive and family functioning as healthier and more functional. As the age of professional foster parents increased, the perception of the family as emotionally alienated and dissatisfaction with functioning of the family increased too. The results also indicated that professional foster parents living in a partnership/marriage perceived the family system as more cohesive than professional foster parents without a partner/spouse.

**Conclusion:** The results of the research indicate the importance of understanding the family system of professional foster families and are relevant to the effective application of a systems approach by social workers when working with professional foster families.

# Introduction

Professional foster parents provide care for children removed from their natural family environment. The goal of professional foster parenting is not to establish a long-term relationship with the child, but to return the child to his/her biological family or to place the child in foster care or adoption (Búšová, 2008). When talking about professional foster families, it is necessary to look at them as a system that is made up of professional foster parents, their life partners, their biological children and the children placed in the professional foster families.

We take a systems approach to the family, which focuses on the processes taking place in the family and on the causes of family dysfunctions and difficulties of family members. The system provides a set of interconnected cause and effect relationships, creating an effective model for working with professional foster families. If the function of one element in the system changes, it can affect the functioning of the whole system. Thus, the family functions as a system, and therefore experts understand that effective work with the family means systemic work with the whole family (Gabura, Gažiková, 2021). According to Minuchin (2003), the professional working systemically with the family

takes into account the whole field of the family and does not get carried away with details that would limit the perception of other contexts. A professional foster family is an open system, just like a biological family. The individual elements of this open system, i.e. the subsystems, the family members, are in constant interaction (Becvar, Becvar, 2018).

In our study, we rely on the Olson's circumplex model of the couple and family system. This model describes family functioning through three basic dimensions - cohesion, adaptability and communication (Olson, 1993).

Family cohesion is defined as the physical and emotional closeness of family members. Cohesion is made up of five levels that range from alienated, somewhat interconnected, interconnected, very interconnected, and overly interconnected cohesion. According to Olson and Gorall (2006), the three middle levels form a balanced system and represent the optimal way for families to function. The two extreme levels represent an unbalanced system and point to problematic family functioning.

Family adaptability measures the quality and expression of roles, rules, organisation, and leadership in the family. A systems understanding of the family suggests that families require both sta-

bility and change, as they must meet individual needs while maintaining a sense of stability (Minuchin, 2003). Adaptability is made up of five levels and ranges from rigid, somewhat flexible, flexible, very flexible to chaotic adaptability. The three middle levels of adaptability are considered balanced and are associated with healthy development of the individual and the whole system. The two extremes represent an unbalanced system and pose a risk to healthy family functioning in the long run (Olson, & Gorall, 2003).

Family communication is a facilitating dimension because it helps family members to adjust their level of cohesion and adaptability according to changing situational or developmental conditions. It contains several elements of communication that are applied in the family system. These include listening skills, communication skills, a tendency toward self-disclosure, clarity, effective problem-solving skills, the abil-

ity to stay on topic, and respect and respect for the communication partner (Olson, 1993; Olson, Gorall, 2003). Olson's circumplex model has been used in a number of research studies that have focused on perceiving family functioning from the perspective of parents (Boyraz, Sayger, 2011; Gupta, Bowie, 2016; Lei, Kantor, 2020). Research focusing on the family functioning of children in foster care and their foster carers has been conducted by Stone and Jackson (2021).

The aim of the present study was to analyse the perceived functionality of the family system in relation to selected socio-demographic characteristics in professional foster parents.

# **Methods**

# Research sample

The research sample consisted of 203 respondents working as professional foster par-

**Table 1** Descriptive characteristics of socio-demographic variables of professional foster parents

|  | n   | М     | SD   | skew  | kurt  |
|--|-----|-------|------|-------|-------|
| Age of PFF   | 203 | 48.43 | 9.02 | -0.40 | -0.30 |
| Number of biol. children                               | 203 | 2.05  | 1.38 | 1.62  | 8.11  |
| Number of children in the PFF                          | 203 | 7.25  | 6.76 | 2.67  | 10.48 |
| Duration of carrying out professional foster parenting | 203 | 7.47  | 5.31 | 0.50  | -0.12 |

Table 2 Descriptive characteristics of socio-demographic variables of professional foster parents

|                                 |   | N   | %     |
|---------------------------------|---|-----|-------|
| Gender                          | Male  | 20  | 9.9%  |
|                                 | Female  | 183 | 90.1% |
| Education                       | Secondary school without diploma ("maturita") | 23  | 11.3% |
|                                 | Secondary school with diploma ("maturita")    | 147 | 72.4% |
|                                 | University                                    | 33  | 16.2% |
| Status                          | With a partner                                | 155 | 76.4% |
|                                 | Without a partner                             | 48  | 23.6% |
| Residence                       | Urban area                                    | 64  | 31.5% |
|                                 | Rural area                                    | 139 | 68.5% |
| Does the partner carry out pro- | Yes   | 33  | 16.3% |
| fessional foster parenting too? | No  | 170 | 83.7% |

ents. The mean age of respondents was 48.43 years (SD=9.02), they had an average of 2 biological children (SD=1.38), and by the time of the research they had practised professional foster parenting for an average of 7.47 years (SD=5.31) and had had an average of approximately 7 children placed (SD=6.76).

They were mostly women (n=183, 90.1%), with a secondary school diploma (called "maturita" in the Slovak Republic) (n=147, 72.4%), living with their life partner/spouse (n=155; 76.4%) in a rural area (n=139, 68.5%), while their life partner/spouse did not usually carry out professional foster parenting with them (83.7%).

More detailed descriptive characteristics are presented in Tables 1 and 2.

### Research methods

Family system functioning was measured using the Family Adaptability and Cohesion Scale (FACES IV) self-report questionnaire (Olson, 2010) that allows to determine the manifestations of a balanced (functional) and unbalanced (dysfunctional) family system. Family communication was measured using the Family Communication Scale (Olson, Barnes, 2010) that allows to determine positive aspects of communication - the ability to exchange emotional and factual information between family members, and the level of satisfaction and perceived ease with family communication. Finally, the Family Satisfaction Scale (Olson, 2010) was used to measure the extent to which family members feel satisfied with cohesion, adaptability, and communication. All questionnaires are part of the Family Assessment Package currently available from Life Innovations, Inc.

Dimensions of family system functioning observed:

- Balanced cohesion measures the ability of family members to maintain both mutual cohesion and autonomy, to engage in joint and individual activities, to spend appropriate amounts of time together, to make decisions together and support each other.
- Balanced adaptability measures the ability of family members to balance between stability and change, the degree of democratic leadership, involvement of all family members in decision-making, flexibility of roles and rules.

- Intertwined cohesion measures excessive emotional closeness and dependence of family members, lack of independent, non-family interests, activities, friends and individual time spending of family members, demanding loyalty.
- Alienated cohesion measures emotional alienation of the family members, low involvement in family life, high individual independence, individual activities, interests and time-use, and inability to support each other.
- Rigid adaptability measures rigidity in family decision making, roles and rules, autocratic leadership and control by one family member the leader.
- Chaotic adaptability measures unreliability and unpredictability of leadership, ambiguity of rules, roles and tasks, impulsivity in decision making and shifting of responsibilities among family members.
- Flexibility, Cohesion and Whole Circumplex Model Relative Scores determines the overall level of functionality/dysfunctionality of the family system. The lower than 1 the more unbalanced, unhealthy, dysfunctional the system is, the higher than 1 the more balanced, healthier, more functional the system is.
- Family communication measures the positive aspects of family communication, the ability to exchange emotional and factual information between family members, and the degree of satisfaction and perceived non-coercion with family communication
- Family Satisfaction measures the extent to which family members feel happiness and fulfilment in the family. Participants comment on their level of satisfaction with three dimensions of family functioning - cohesion, adaptability and communication.

### Statistical analysis

SPSS 21 software was used for statistical data processing. In the first step, the descriptive characteristics of the family system dimensions were computed across the entire sample, and we verified that the variables meet the conditions of a normal distribution by means of the skewness and kurtosis distribution indicators. We then focused on analysing differences in the dimensions of family functioning with respect to socio-demographic characteristics. Due to the fail-

ure to meet the normal distribution conditions, nonparametric tests were used.

## Results

The results showed that most of the family system dimensions examined are not normally distributed. Respondents scored higher than average on the balanced cohesion, communication, and satisfaction scales and, conversely, scored lower than average on the unbalanced dimensions of chaotic adaptability and alienated cohesion. Overall, the mean and median values show that respondents reported higher than mean values in the balanced dimensions and lower than mean values in the unbalanced dimensions (Tab. 3).

The results of Spearman's rank order analysis showed (Tab. 4) that the age of the professional foster parent was statistically significantly

**Table 3** Descriptive characteristics of dimensions of family functioning in the whole sample

|                          | n   | М     | SD   | Md   | skew  | kurt  |
|--------------------------|-----|-------|------|------|-------|-------|
| Balanced cohesion        | 203 | 31.78 | 3.40 | 33   | -1.41 | 2.47  |
| Balanced adaptability    | 203 | 29.63 | 3.64 | 30   | 94    | 1.86  |
| Intertwined cohesion     | 203 | 15.06 | 3.83 | 15   | .91   | 3.39  |
| Alienated cohesion       | 203 | 12.56 | 4.22 | 12   | 1.53  | 4.35  |
| Rigid adaptability       | 203 | 17.23 | 4.61 | 18   | .18   | .16   |
| Chaotic adaptability     | 203 | 11.61 | 4.41 | 11   | 1.63  | 4.29  |
| Ratio cohesion score     | 203 | 2.42  | 0.62 | 2.42 | 0.08  | -0.13 |
| Ratio adaptability score | 203 | 2.17  | 0.60 | 2.15 | 0.79  | 1.13  |
| Total ratio score        | 203 | 2.30  | 0.55 | 2.28 | 0.21  | 0.19  |
| Family communication     | 203 | 44    | 5.94 | 46   | -1.17 | 1.01  |
| Family satisfaction      | 203 | 43.87 | 6.26 | 45   | -1.69 | 4.77  |

**Table 4** Correlation of age, number of biological children, children placed in the PFFs, and length of professional foster parenting and family system dimensions

|                          | Age     | Biol.<br>children | Children<br>in the PFF | Length of professional foster parenting |
|--------------------------|---------|-------------------|------------------------|---|
| Balanced cohesion        | -0.13   | -0.01             | -0.07                  | -0.11                                   |
| Balanced adaptability    | -0.15*  | -0.01             | -0.02                  | -0.03                                   |
| Intertwined cohesion     | 0.10    | 0.01              | -0.09                  | 0.00                                    |
| Alienated cohesion       | 0.25**  | 0.14              | 0.08                   | 0.19**                                  |
| Rigid adaptability       | -0.07   | 0.08              | -0.09                  | 0.01                                    |
| Chaotic adaptability     | 0.16*   | 0.09              | 0.01                   | 0.10                                    |
| Ratio cohesion score     | -0.26** | -0.09             | -0.02                  | -0.16*                                  |
| Ratio adaptability score | -0.13   | 0.13              | 0.03                   | -0.07                                   |
| Total ratio score        | -0.22** | -0.12             | 0.00                   | -0.14*                                  |
| Family communication     | -0.14*  | 0.00              | -0.06                  | -0.16*                                  |
| Family satisfaction      | -0.21** | -0.08             | -0.08                  | -0.18*                                  |

<sup>\*</sup>p <0.05; \*\*p <0.01

negatively but weakly correlated with balanced adaptability (r=-0.15\*), and positively weakly correlated with alienated cohesion and chaotic adaptability (r=0.025\*\* and r=0.16\*, respectively). The relationship with the ratio score reflecting the overall level of functionality also proved significant; both the cohesion ratio score and the overall system ratio score correlated weakly negatively with age.

A negative statistically significant, weak relationship was also observed between age and family communication and satisfaction (r=0.14\* and r=0.21\*\*, respectively).

Neither the number of biological children nor the number of children placed in the PFF so far was related to perceptions of family functioning.

The length of carrying out professional fos-

ter parenting was statistically significantly too, positively weakly correlated with alienated cohesion and negatively correlated with cohesion ratio scores, total ratio scores, and communication and satisfaction. However, the relationships were weak to insignificant (r=-0.14 - -0.18).

The results of the Mann-Whitney U test showed (Tab. 5) that men and women differed statistically significantly in their perceptions of balanced cohesion, with women perceiving families as more cohesive (p <0.01). Differences also emerged in the ratio scores, women perceived family functioning in terms of cohesion, adaptability and the whole system as healthier/more functional than men (p <0.05). In terms of substantive significance, there were small differences (r=0.16 - r=0.21).

**Table 5** Gender differences in the functioning of the PFF

|                          | Gender | n   | М     | SD   | Md   | U           | sig   |
|--------------------------|--------|-----|-------|------|------|-------------|-------|
| Balanced                 | Male   | 20  | 29.85 | 3.54 | 30   | 1,078.50    | 0.002 |
| cohesion                 | Female | 183 | 31.99 | 3.33 | 33   |             |       |
| Balanced adaptability    | Male   | 20  | 28.10 | 4.54 | 28   | 1,386.50    | 0.74  |
|                          | Female | 183 | 29.79 | 3.5  | 30   | 1,500.50    | 0.7 4 |
| Intertwined cohesion     | Male   | 20  | 16.20 | 5.55 | 15   | 1,677.50    | 0.54  |
| intertwined conesion     | Female | 183 | 14.94 | 3.60 | 15   | 1,077.50    | 0.54  |
| Alienated cohesion       | Male   | 20  | 14.15 | 5.89 | 13   | 1,430.00    | 0.12  |
| Attenated conesion       | Female | 183 | 12.38 | 3.98 | 11   |             | 0.12  |
| Rigid adaptability       | Male   | 20  | 18.70 | 5.70 | 18   | 1,578.50    | 0.31  |
| Rigiu adaptability       | Female | 183 | 17.07 | 4.46 | 17   |             |       |
| Chaotic adaptability     | Male   | 20  | 13.00 | 6.03 | 12   | 1,496.50    | 0.18  |
| Chaotic adaptability     | Female | 183 | 11.45 | 4.19 | 11   |             |       |
| Ratio cohesion score     | Male   | 20  | 2.12  | 0.59 | 2.07 | 1,253.00    | 0.021 |
| Natio Collesion Score    | Female | 183 | 2.45  | 0.61 | 2.43 | 1,233.00    |       |
| Ratio adaptability score | Male   | 20  | 1.90  | 0.59 | 1.69 | 1,231.50    | 0.016 |
| Natio adaptability score | Female | 183 | 2.20  | 0.60 | 2.21 | 1,231.30    | 0.016 |
| Total ratio score        | Male   | 20  | 2.01  | 0.56 | 1.89 | 1,196.50    | 0.011 |
| lotal ratio score        | Female | 183 | 2.33  | 0.54 | 2.33 |             |       |
| Family communication     | Male   | 20  | 43.10 | 6.17 | 45.5 | 1,644.00    | 0.454 |
|                          | Female | 183 | 44.11 | 5.92 | 46   | 1,044.00    | 0.754 |
| Family satisfaction      | Male   | 20  | 42.55 | 6.02 | 42.5 | 1,536.00 0. | 0.236 |
|                          | Female | 183 | 44.02 | 6.28 | 46   |             | 0.236 |

The results of the Mann-Whitney U test showed (Tab. 6) that professional foster parents living with a partner/spouse rate the family system as more cohesive (p <0.01) and overall more functional (p <0.05) compared to professional foster parents without a partner. However, in terms of substantive significance, the differences are small (r =0.15-0.18).

The results of the Mann-Whitney U test showed no statistically significant differences in the dimensions of the family system with respect to residence of the PFF, to carrying out professional foster parenting by the partner, and to education.

# **Discussion**

The aim of the present study was to analyse the perceived functionality of the family system in relation to selected socio-demographic characteristics in professional foster parents. The socio-demographic characteristics examined were gender, age, marital status, residence, education, length of time carrying out professional foster parenting, number of biological children, number of children placed in the professional foster family, and carrying out professional foster parenting by the partner.

Overall, the professional foster parents rated the functioning of the family system as functional and healthy, with a good level of communication, and they were satisfied with the functioning of the family. Similar results were reported by Tramonti et al. in their research. (2019), where a balanced family system was confirmed in the families studied. We see our results as positive, as a functioning professional foster family sys-

**Table 6** Differences in family functioning due to marital status

|                 | Status            | n   | М     | SD   | Md   | U        | sig   |
|-----------------|-------------------|-----|-------|------|------|----------|-------|
| Balanced        | Without a partner | 48  | 30.65 | 3.95 | 31   | 2,804.50 | 0.009 |
| cohesion        | With a partner    | 155 | 32.13 | 3.15 | 33   | 2,004.50 | 0.009 |
| Balanced        | Without a partner | 48  | 28.73 | 4.12 | 29   | 3,145.00 | 0.104 |
| adaptability    | With a partner    | 155 | 29.90 | 3.44 | 30   |          | 0.104 |
| Intertwined     | Without a partner | 48  | 15.17 | 3.75 | 15   | 3,697.50 | 0.949 |
| cohesion        | With a partner    | 155 | 15.03 | 3.87 | 15   | 3,697.50 | 0.949 |
| Alienated       | Without a partner | 48  | 13.54 | 4.58 | 13   | 3,079.50 | 0.070 |
| cohesion        | With a partner    | 155 | 12.25 | 4.08 | 11   | 3,079.50 | 0.070 |
| Rigid           | Without a partner | 48  | 17.75 | 3.70 | 19   | 3,337.50 | 0.281 |
| daptability     | With a partner    | 155 | 17.07 | 4.86 | 17   |          |       |
| Chaotic         | Without a partner | 48  | 11.40 | 3.90 | 11   | 3,693.50 | 0.940 |
| adaptability    | With a partner    | 155 | 11.67 | 4.57 | 11   |          |       |
| Ratio           | Without a partner | 48  | 2.25  | 0.61 | 2.21 | 2,907.50 | 0,022 |
| cohesion score  | With a partner    | 155 | 2.48  | 0.61 | 2.43 | 2,907.50 |       |
| Ratio adaptabi- | Without a partner | 48  | 2.03  | 0.48 | 2.07 | 3,247.00 | 0.183 |
| lity score      | With a partner    | 155 | 2.21  | 0.63 | 2.19 | 3,247.00 | 0.165 |
| Total ratio     | Without a partner | 48  | 2.14  | 0.51 | 2.12 | 2 061 50 | 0.033 |
| score           | With a partner    | 155 | 2.34  | 0.55 | 2.36 | 2,961.50 | 0.055 |
| Family          | Without a partner | 48  | 43.02 | 6.34 | 45.5 | 7 277 50 | 0.169 |
| communication   | With a partner    | 155 | 44.32 | 5.8  | 46   | 3,233.50 | 0.109 |
| Family          | Without a partner | 48  | 42.48 | 7.77 | 43.5 | 7 20700  | 0.221 |
| satisfaction    | With a partner    | 155 | 44.30 | 5.67 | 46   | 3,287.00 | 0.221 |

tem is crucial for the harmonious development of children placed in these families. Kelly (2017) points out that these children are among the most vulnerable groups as most of them experienced maltreatment, substance abuse by the parents, poverty and neglect in their original families. As a result of neglect, children placed in foster families often suffer from mental health issues (Jaffee, 2017). The results of Szcześniak & Tułecka's (2020) research on the functioning of the family system showed that life satisfaction is positively and significantly correlated with cohesion, adaptability, and communication. On the other hand, our results related to a functional and healthy family system of professional foster families may be biased due to the respondents' desire to show family functioning in a better light, which may be based on the fact that professional foster parents are employees of the Centres for Children and Families and their activities are regularly monitored.

The results of statistical analyses did not confirm any differences in the perception of the functionality of the family system with respect to education, i.e. professional foster parents are satisfied with their family system regardless of their education. On the contrary, several authors have pointed out in their research the association between the level of education and the functioning of the family system from the parents' perspective, in favour of parents with higher education (Koutra et al., 2013; Lei, Kantor, 2020; Pereira, Texeira 2013). Similarly, differences in perceptions of family functioning with respect to residence and whether the spouse of the professional foster parent is carrying out professional foster parenting too have not been confirmed.

The research results confirmed significant associations between perceptions of the family system and the age of professional foster parents. The older the professional foster parent, the greater the perceived emotional alienation of family members, low involvement in family life, high individual independence, individual activities, interests and time spending, and inability to support each other. Related to this was less satisfaction with family functioning. However, the relationships are weak overall, indicating that age explains only 6.3% and 4.4% of the variability in perceived family cohesion and satisfaction with family functioning, respectively. This is

also related to the increasing age of biological children and children placed in professional foster families who are gradually becoming independent, which may be perceived as emotional alienation by professional foster parents.

Differences in perceptions of the family system with respect to the gender of professional foster parents were demonstrated, which corresponds with the results of the research by Popelka and Shebokova (2015), which confirmed gender differences, with women showing higher scores on family cohesion compared to men. In contrast, Pereira and Texeira (2013) and Saroura and El Keshky (2021) did not observe differences in family system cohesion and adaptability between genders. It was also confirmed in our research that women perceived family functioning as healthier and more functional than men. Family cohesion is the emotional bond that family members feel for each other. At one extreme end of the cohesion dimension, there is an exaggerated identification with the family that can make contact with the outside world problematic; at the other extreme, there are strictly autonomously living family members who are relationally unconnected. Oscillation around the centre of the continuum of cohesion and independence includes individuals who live somewhat independently of their family and at the same time manage to be relationally and instrumentally connected to their family (Gabura, Gažiková, 2021).

Differences have also been demonstrated with respect to the marital status of professional foster parents. Professional foster parents living in a partnership/marriage rated family cohesion of family members as higher than professional foster parents without a partner/spouse. Overall, professional foster parents living in a partnership/marriage perceived family functioning as healthier and more functional than professional foster parents without a partner/spouse. Similar results were also noted by Lei and Kantor (2020) in their research, with respondents who lived with a partner or spouse scoring higher on cohesion and adaptability. Also Wagner et al. (2010) found that families that were made up of only one parent were perceived as less cohesive than families with both parents.

A strength of our study is the research focus on professional foster parents' perceptions of the functionality of the family system, which has not previously been a focus of studies in the area of family system research. Another strength is that almost one-third of all professional foster parents in the Slovak Republic participated in the research. Its limitation is the absence of studies focusing on the functioning of the foster family system. Another limitation can be considered to be the online form of data collection, where it is not certain that professional foster parents filled in the questionnaires independently and did not subjectively "embellish" their answers in favour of a functioning family system.

# Conclusion

The results of our study showed that professional foster parents perceive the family system as functioning, healthy, with good communication and are satisfied with its functioning. Perceptions of the functioning of the family system are not influenced by socio-demographic characteristics other than age, gender and marital status. Women in partnerships perceive families as more cohesive; on the contrary, the perception of the family as emotionally alienated increases with age. The results contribute to a better understanding of the functioning of the professional foster family system.

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# Analysis of Psychological Aspects of Lone Wolf Attack in Slovak Republic.

# There's a method to the madness

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### Abstract:

The presented article discusses the first accomplished terrorist attack in the history of Slovak Republic. In October 2022 a lone perpetrator killed two people and injured one other person. We analyse the terrorist act and the known information about the perpetrator and compare them to what is known about extremism and terrorism. An emphasis is put especially on lone wolf terrorism, as we believe it was the case of the attacker of the above mentioned terrorist act on Zamocka Street in Bratislava. The process of self-radicalization, role of social environment and warning behaviour before the act are described. Known information about the perpetrator, his own

self-radicalization process that happened mostly on-line and sources of inspiration are discussed. The political message of this terrorist attack, based on the perpetrator's manifesto, is consistent with the ideology of accelerationism.

## Introduction

In the Slovak Republic, terrorist acts do not have such a long and detailed history as in many other developed countries. In October 2022, a lone perpetrator murdered two people in front of an LGBTI+ café in Bratislava and shot a third person. The crime was subsequently classified as a terrorist attack by the law enforcement authorities (Deliman, 2022; SITA, 2022). Shortly before the crime, the perpetrator published his manifesto on the online platform Twitter. In this paper, we offer a view of this terrorist act in the context of the self-radicalization process of lone wolf terrorists.

## **Acts of Extremism and Terrorism**

Extremism is a political term describing beliefs or behaviour of people striving for political change by using extreme methods. The Anti-Extremism Strategy of Home Office in United Kingdom (2015) defines extremism as vocal or active opposition to society's fundamental values, including democracy, the rule of law, individual liberty and the mutual respect and tolerance of different faiths and beliefs. The opposition to the values of a society can be expressed as opinions or as actions. However not all extremist groups commit violent acts of terrorism. Violent extremism is a term used for the acceptance of use of violence (by belief or action) to achieve political goals, often leading to or supporting terrorism acts (Striegher, 2015).

Terrorist act can be defined as violent act having a political, ideological or religious goal, intention to coerce, intimidate or communicate a political message to greater public than to the immediate victims of the act (Spaaij, 2012). Execution of a terrorist act often follows the perception of a real or alleged injustice caused by a concrete political, social, racial or religious group. The perception of a terrorist act differs from the position of the referee. What can be seen as a terrorist act by some, may bee seen as an act of heroism and fight for freedom by others (Anti-Extremism Strategy, 2015).

# **Single Actor Terrorism**

Early days of single actor or leaderless terrorism were first noted in late 19th and early 20th century. Political assassinations and bombings against representatives of the political power in Europe were staged under the banner of "propaganda by deed", often executed by solo actors (Nesser, 2012). Leaderless resistance found fertile ground among anti-communists, white racist (White Supermacy), jihadists (f. e. Al-Qaeda) and later also animal rights campaigners, environmental activists and others (ibid).

#### **Lone Wolf Terrorism**

The term "lone wolfism" was introduced by a white supermacist Tom Metzger to popularize the image of lonesome, "patriotic" warrior. White nationalist leaders would issue generalized calls to arms but give no direct orders and have no knowledge about who was planning what. The "lone wolf" warriors should prepare and execute their attacks themselves (Gardell, 2023).

During last decades, the lone wolf tactics spread through the help of on-line platforms and quickly became a growing security threat. Internet is the most influential and far reaching tool in the self-radicalization process of lone wolf terrorists (Binder, Kenyon, 2022). Availability of information on the internet provides extremist views of society and extremist solutions to its problems (indoctrination) and study material on attack preparation on extremist webpages, including guidelines on fabrication of explosives and perpetration of low-cost, low-sophistication attacks. Internet is also a main source of targeting information (persons, sites, geolocation data, etc.) (Cohen, 2012; Siggery et al., 2022).

Lone wolf terrorists (1) act (prepare and attack) autonomously, (2) are not members of an organized terror group or network (but may identify and sympathize with an ideology of an organization, or may have been members in the past) and (3) have their own modus operandi unconnected to orders from outside, yet are externally inspired (Spaaij, 2010).

Actions of lone wolf terrorists are not accidental acts of violence, nor are they a result of acute mental condition or an extraordinary situation. Rather, they are clearly pre-meditated, planned actions, with clear interest (unlike other perpetrators of violent crimes) to communicate a particular political message to the public (Cohen, 2012). Lone wolf terrorists tend to publish, frequently, their own manifesto, video-recording or a letter to the media, public, etc. (Siggery et al., 2022).

Although lone wolf terrorists prepare and execute their attacks alone, they are not completely independent from the world around them. On the contrary, their interest in the world around them is significant. Terrorism as a political act is also essentially a social act, because the perpetrator would like to achieve something for the group he/she identifies with (Hamm, Spaaij, 2015).

# Ideology and background of Lone Wolf Terrorist

The ideology of a lone wolf terrorist may be multifaceted, frequently amplified by personal frustration in combination with resistance towards a cause or a group (e.g. race, religion, politics, society). Most frequent ideologies of lone wolf terrorists include right-wing extremism and white race supremacy (17%), radical Islamism (15%), anti-abortionism (8%), nationalism and separatism (7%). In as many as 1/3 of cases the ideology can not be determined, it either remains secret, is unspecified or unclear (Spaaij, 2012).

Social background of lone wolf terrorists may vary. Frequently, lone wolves are well educated and originate from privileged social environment. They can have a history of child abuse or early trauma (Cohen, 2012).

# **Psychopathology of Lone Wolf Terrorist**

Lone wolf terrorists experience a greater degree of psychological issues than other terrorists or the population at large (Pantucci, 2011; Spaaij, 2010). The most-frequently represented issues include personality disorders (as many as 4 out of 5 lone wolf terrorists), depressive episode in case history (4 out of 5), lowered competence in social interaction and loneliness are also frequent. In some cases an acute psychotic episode, autistic spectrum disorder, post-traumatic stress disorder or substance dependence

may be present (Spaaij, 2012; Al-Attar, 2019). The most common personality disorders present in lone wolf terrorists are narcissistic, antisocial, paranoid, borderline and schizotypal personality disorder (Al-Attar, 2019).

It is important to understand that the presence of a concrete mental illness or disorder does not represent a risk factor for extremism in general population. Presence of mental illness or disorder is relevant only to the extent that the individual is already susceptible to extremism (e.g. might have a history of aggressive behaviour against targets and/or an impaired tendency to perceive reality). The very fact that the lonewolf terrorist is able to plan and execute a violent, politically motivated act would usually disprove the thesis of a serious mental illness (Cohen, 2012; Hamm, Spaaij, 2015).

# **Selfradicalization process**

The process in which an individual becomes inclined to use political violence is called radicalisation or in case of "lone wolfs", self-radicalisation. This process might be of different length, but more often is longer than shorter. Lone wolf terrorists have no clear-cut profile, no clearly defined personality traits or experience which would direct them towards the path of self-radicalization (Al-Attar, 2019). A crucial role in self-radicalization is played by propaganda and freely available information, especially on-line.

The process of self-radicalization is more or less unique for every lone wolf terrorist, but the cornerstone of terrorism is a sense of grievance, a perceived injustice (to themselves or witnessed injustice to others), (Cohen, 2012). Personal grievance is elevated to a group grievance; both the victim and the attacker are classified as a group (white race, Jews, Blacks, etc.). Lone wolf identifies with the group perceived broadly as victim or under threat (positive identification) and which should benefit from the terror act (e. g. "for the future of white children").

If strong enough, the grievance evokes a desire for justice and revenge on those considered responsible for the injustice (negative identification). Intensity of perceived conflict with a group grows, while simultaneously, any restraints against the use of premeditated violence decreases. Negative identification of enemy

group is an important element of radicalization as it enables the terrorist to demonize and/or dehumanize the enemy, justifying his resort to violence (Cohen, 2012). The potential lone wolf terrorist enters a state of mind where he is able to commit a pre-planned violent act with the goal of achieving an ideological objective. A potential lone wolf terrorist feels, apart from all the others who share a violent ideology, the sense of an obligation to act (Cohen, 2012). A political motive bestows a certain degree of moral justification upon the violence (ibid).

# The role of social environment in selfradicalization

Most lone wolf terrorists don't maintain satisfying social contacts, lack close relationships and therefore obligations towards loved ones. Having few interpersonal obligations, they have ample time and means to study ideology and plan an attack. Lack of social contact also leads to missing feedback from the environment that might lead to a different view. Non-existent or only a few close friends or relatives in real life can not beat the broad community of like-minded individuals in online space.

Other lone wolf terrorists and their past acts represent examples for the new one's to become. Their acts, videos, letters and manifestos may serve as blueprints, examples to follow, copycat or emulate. On different extremist on-line platforms, the perpetrator can receive encouragement by other extremists who would normally not commit a crime (Cohen, 2012; Spaaij, 2012).

# **Warning Behaviour Before the Act**

Any terrorist act is preceded by a period of preparation. Preparation includes a concrete intent (not visible from the outside, although it can be verbalized) and motivation (Cohen, 2012). In addition to the intent, capability to commit the act is equally important. Preparation, intent and motivation differentiate lone wolf terrorists from individuals holding extremist views, but lacking a motivation to act. Motivation to act is not always visible, however, it can be sometimes observed from individual's way of expressing himself/herself. The problem with this is that most people from the social environment of the lone wolf terrorist have only partial information about him/her.

Behavioural markers for radical violence or so called warning behaviours can indicate increasing risk of terrorist attack. Meloy et al. (2012) describe eight types of warning behaviours including research, planning, preparation or implementation of an attack (choosing a pathway); increasingly pathological preoccupation with a person or a cause (fixation); strong identification with previous attackers, close association with weapons or other military paraphernalia, identification of oneself as a person to advance a particular cause; novel violent behaviour unrelated to the eventual targeted violence, showing the capacity of violence; an increase of the frequency or variety of activities related to the target, usually in the days or weeks before an attack (energy burst); communication of intent to a third party (leakage); an expression of increasing desperation or distress, with the conclusion that there is no alternative action other than violence (last resort) or directly communicated threat.

Lone wolf terror attacks are extremely hard to prevent because perpetrators work alone and tend to be secretive. Warning signs are often almost invisible because of social isolation of the perpetrator. It is also challenging to differentiate between extremists who actually plan an attack and those who merely verbalize their extremist views, as there is a high number of groups promoting violence. Many lone wolves only perpetrate a single attack, without previous track record of past anti-social behaviour (Hamm, Spaaij, 2015).

# Terrorist Attack on Zamocka street in Bratislava

On October 12, 2022, shortly after 7 p.m., a terrorist attack occurred in front of the LGB-TI+ cafe "Teplaren" (meaning *Heating Plant* but also *Gay Plant* in Slovak language) on Zamocka street in Bratislava. The perpetrator murdered two people in front of the café with a firearm and wounded one person (Kelloova, Petrovic, 2022).

After the attack, the 19-year-old perpetrator came home to his parents, where he exchanged one weapon for another. He also wrote a farewell letter. The parents became aware of their son's deed, but did not report this fact to the authorities. According to information available from the local media, the perpetrator probably

wandered all night in a nearby forest park. He was also communicating on Twitter and 4chan shortly after midnight, e. g. posting pictures of his wandering through Bratislava at night or a picture of himself with a shoe on his head when asked on-line to take such picture if "he did it (the attack)" (Filo, Kovacic Hanzelova, 2022; Vanco (b), 2022; Zdut, 2022).

As mentioned before in this text, lone wolf terrorists often publish manifestos to explain their view of the world and their political goals. So did the future perpetrator of murders on Zamocka street, who published his manifesto about five hours before the shooting. A 65-page manifesto published on Twitter contained racist, anti-semitic and homophobic content calling for violence against Jews and LGBTI+ people (Debnar, Petrovic, 2022; Filo, Kovacic Hanzelova, 2022). In the manifesto, he named, among others, the far-right terrorist Anders B. Breivik (perpetrator of the terrorist attacks in Norway in 2011), Brenton H. Tarrant (perpetrator of the terrorist attacks on the Al Noor Mosque and Islamic center in Christchurch, New Zealand in 2019), John T. Earnest (perpetrator of the terrorist attack in Poway Synagogue, USA, in 2019), Payton S. Gendron (perpetrator of the terrorist attack in Buffalo, USA, in 2022) and Adolf Eichmann, the leading organizer of the Holocaust. The manifesto was later removed from Twitter and the perpetrator's account (NTMA0315) was blocked (Aktuality.sk, 2022; Zdut, Osvaldova, 2022; Manifesto, 2022).

The perpetrator was found dead the next day in the morning hours on a street in Bratislava, the probable cause of death being a gunshot wound in the head area, while suicide is assumed. Both fire arms, the one used in the attack, and the one, with which he probably shot himself, were in his father's legal possession (Vančo (b), 2022). As to the possible priviledged social background of the perpetrator, his father was politically active in the past and ran for the non-parliamentary party called "Vlast" (*Homeland*), (Aktuality.sk, 2022; Kelloova, Petrovic, 2022; Zdut, Osvaldova, 2022).

A security analysis of the perpetrator's manifesto was later concluded, showing that the LG-BTI+ café was only one of the targets, as the attacker also planned an attack on orthodox Jews, the Prime Minister of the Slovak Republic and

other current and past political representatives of the state and public life (Mikusovic, 2022). The victims were not the prime objectives. Rather, they have been unprotected, soft targets.

The perpetrator was a student of a High School for extraordinary talented children in Bratislava. The school stated that the student did not show any negative signs or hateful communication during classes. According the school statement, he seemed to be quiet, forthcoming and easy-going. His inner world, which he led on social media, was not privy for the school (Kissova, 2022; Vanco (a), 2022).

# Analysis of the terrorist attack on Zamocka street

The terrorist attack is a first completed act of its kind in Slovak republic. It was executed by an independent perpetrator, with no affiliation to an extremist group or a movement.

The perpetrator was a 19 year old white male with high intelligence (a student of a High School for extraordinary talented children), speaking fluently English (his manifesto was written in perfect English), which enabled him to gain information from various on-line extremist sources (Kelloova, Petrovic, 2022).

The actions of this perpetrator match the actions of a lone wolf terrorist, as described in this text. He prepared and executed his attack alone, was not a member of any organized terror group and even though he was obviously inspired by similar lone wolf attacks (copycat effect), he did not act on any orders from outside (Manifesto, 2022).

As described in his manifesto (which the authors of this article were able to obtain), he found inspiration on the internet (8chan, 4chan, telegram ...). The perpetrator had access to firearms (in a safe in his family home to which he knew the combination) and was a competent user. His family's socioeconomic status was not low, not in financial terms, nor in education. Father of the perpetrator was politically active (Aktuality.sk, 2022; Kupper et al., 2023).

The perpetrator was bullied and suffered from depression and exhibited suicidal tendencies, as observed by a school psychologist who advised his parents to seek the help of a clinical psychologist and / or a psychiatrist. His father rejected this possibility, he perceived seeking

professional help for his son as shameful (Osvaldova, Benedikovicova, 2022). According to schoolmates, he had few friends. He was without a prior record of serious aggressive acts (e. g. official school statement), (Aktuality, 2022; Vanco (a), 2022). Unlike the schools official statement, some other teachers and schoolmates reported the perpetrator as a high conflict type with manifestation of rage, which made it hard for him to find and maintain relationships with schoolmates (Osvaldova, Benedikovicova, 2022). The perpetrator himself described, that he had to leave his previous school because of being bullied and conflicts with schoolmates (Manifesto, 2022).

As mentioned before, 4 out of 5 lone wolf terrorists have a personality disorder and a depressive episode in their history, many have also a lowered competence in social interaction and are lonely. The personality profile of this perpetrator is unknown, yet conflict behaviour, manifestations of rage, difficulties in maintaining relationships and a previous depressive episode were reported by by school psychologist, teachers and fellow students.

According to his manifesto, he was fascinated by a broad spectrum of ideologies since 2016. He was describing his gradual self-radicalization since 2019, the trigger being watching the video from New Zealand mass shooting in Al Noor Mosque. In April 2019 he even presented a school project on topic of terrorism in April 2019 (fixation as warning behavior), (Vanco (a), 2022). Then he slowly started planning the attack, identifying and localizing possible targets. He described in his manifesto, that the final straw in his decision to act was the example of Payton S. Gendron, who committed the terrorist attack in Buffalo, USA in May, 2022. He identified himself with Gendron as "a young man, his whole life ahead, willing to sacrifice his life for a greater cause" (contagion reaction), (Manifesto, 2022). After Buffalo's attack he began drafting his own manifesto.

The perpetrator was a member of a wider international community of right wing extremists (RWE). He has not shown any inclination to topics or actions of well established RWE movements in Slovak republic. In his manifesto there is not one reference about the Romani minority in Slovak republic that is considered

a priority problem by the Slovakian RWE scene. The terminology used in his manifesto, its style and content show a strong inspiration of the perpetrator by conspirational theories of "Great replacement" or "New World Order" and an influence of the White Supremacy movement. The perpetrator perceived himself as someone "who sees what is happening and can not let it just be" (sense of obligation), a fighter for a higher goal, felt an imperative to act (to fight for his white race, the future of white children). The enemy was clearly identified as "Jewish conspiracy" and Zionist Occupation Government (ZOG). He himself identified with the white race which he perceived being in danger from the enemy (positive identification), (Manifesto, 2012).

According to the Manifesto of the perpetrator (2022), ZOG is responsible for the state the world is in today, including uncontrolled immigration of non-whites to Europe and USA, support of LGBTI+ community and their practices, financial slavery, brainwashing by mainstream media, social control of the masses via COVID vaccination, etc. ZOG intends to further concentrate power and wealth in order to humiliate, control and destroy the white race (sense of grievance). The only solution of this unacceptable situation, as seen by the perpetrator, was physical violence at grand scale, destruction of existing social and political world order, physical liquidation of Jews, erasure of their existence from the history of the world. So, the author of this manifesto called for attacks against enablers of ZOG (ruling elites, artists, actors, screenplays, scientists, journalists, ethnic groups, LGBTI+ community, marxists, anti-fascists, producers and distributors of vaccines and those related to them, including their families, children, their assets, etc.). He wrote that any means are acceptable in the fight for preserving one's existence, no damage is unacceptable, "the only bad target is no target" (Manifesto, 2022). Consequences of random acts of violence serve to goal, according to the perpetrator (Manifesto, 2022), to disrupt the cohesion of a community, against which the attacks are directed, to interfere with a feeling of safety and to sow fear. The political message of his manifesto, even though based on questionable logic, is obvious (ideology of accelerationism).

Accelerationism promotes the idea that

Western governments are irreparably corrupt. The best thing white supremacists can do is accelerate their demise by sowing chaos and creating political tension. Accelerationist ideas have been cited in several mass shooters' manifestos and are frequently referenced in white supremacist web forums. Accelerationists reject any effort to seize political power through conventional means (democratic elections), believing engagement in mass politics is pointless. Their preferred tactic is violence with the ultimate goal to collapse the political system, itself. They strive a white-dominated future after that (Beauchamp, 2019; Kupper et al., 2023).

# **Conclusion**

According to Spaaij (2012) who provides a definition of a terrorist act and also according to Slovak law enforcement authorities, the attack on Zamocka street in Bratislava, Slovakia on 12th of October, 2022 was a terrorist attack. The first accomplished one in Slovak Republic. The perpetrator murdered two people and injured one more person because they were present at a LGBTI+ café. After spending the night wandering in Bratislava, he was found dead the morning after the attack. He had no accomplices for the act itself, yet he was inspired and also followed by various people on online platforms.

In our article we summarized the course of the attack and what is publicly known about the perpetrator. We compared this information with what is known about the lone wolf terrorism. As it turned out, the perpetrator from Zamocka street in Bratislava was a "lone wolf" warrior inspired by other lone wolf attacks around the world.

As stated on his posts on Twitter, he was preparing for the attack, taking pictures in front of the LGBTI+ café and some other places connected to his other possible targets which he mentioned in his manifesto. The day before the attack he repeatedly published posts mentioning, that he had made the decision.

We know that he was not a member of any specific extremist or terror network or group, but he was a member of a wider international community of right wing extremists (RWE). Mostly he was lonely due to his inablity to maintain good relationships with other people. On the other hand, his father expressed some of his ex-

tremist views publicly as a member of a political party (Laukova, 2022; Vanco, 2022) which might have influenced him. Also, the possibility of having an anonymous on-line mentor and co-author of his manifesto was explored (Kupper et al., 2023).

The perpetrator was also well educated attending a High School for extraordinary talented children, he spoke fluent English. As he mentioned in his manifesto, he was bullied and according to his school he was attending sessions with a school psychologist due to his conflict behaviour and manifested rage.

In addition to these information which are consistent with the characteristics of a lone wolf terrorist in general, the perpetrator published his own manifesto shortly before the attack explaining that the process of self-radicalisation started in 2016. He expressed mostly anti-semitic and homophobic views calling for violence against Jewish and LGBTI+ people. In 2019 multiple terrorist attacks inspired him to be active. Interestingly, he did a school project on terrorism at the same time.

As much as it is clear now that there were signs leading to the moment of the attack, the lone wolf terrorism is dangerous and successful precisely because it is extremely difficult to put all the warning signs together in advance. Even so, we must never give up on prevention, good mental health care and education towards mutual respect in democratic society. As difficult as it is, there is an opportunity for change laying in hands of authorities (e.g. politicians, teachers, health care specialists, media etc.) as well as all members of our society.

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# Infectious Diseases transmitted by fecal-oral Transmission and their social Aspects

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#### Abstract:

**Objective:** The aim of our research was to find out whether the respondents know what the alimentary diseases are and whether they think that people with worse social or economic situation have the same access to health care as the average population.

**Design:** Observational-descriptive research.

**Participants:** 140 respondents from the age of 18 with a secondary vocational education were contacted to complete a questionnaire during the month of April 2023. The research involved 100 women and 40 men, with the highest proportion of respondents (48.6%) are in the 26-35 age group and with a high school education (39.3%). The collection of the questionnaire responses was done at random to ensure the highest possible internal validity of the research and distribution as in the general population.

Methods: Comparison of the number of responses and allo-

cation of the percentage (relative) result. Expression of the statistical and technical decision.

**Results:** The research sample shows that up to 70% of respondents do not know what the alimentary diseases are and 53% of respondents think that people with worse social or economic conditions do not have the same access to health care as the average population.

**Conclusion:** According to our research, there is also a large group of people from the majority population who do not know what these are and who have a distorted view of the health conditions and habits of the minority population.

# **Background**

Infectious diseases transmitted by fecal-oral transmission are caused by insufficient adherence to hygiene principles, especially personal hygiene, hand hygiene and food and water hygiene. Typical diseases caused by "dirty hands" and insufficient personal hygiene include hepatitis A, staphylococcal enterotoxicosis, shigellosis, typhoid fever, Norwalk virus and many others, including parasitic infections such as scabies, pediculosis, taeniasis or ascariasis. Why are there constant epidemics of these infectious diseases when prevention is so simple? Is it difficult to wash your hands regularly with soap and water? Take care of your personal hygiene, pay attention to the purity of water and the safety of food? The answer may be the social, economic and cultural aspects that are present in different social groups and the level of knowledge of the general population about the issue of infectious diseases. On this topic, we conducted an observational-descriptive research focused on the level of knowledge about infectious diseases and hygiene habits on a sample of 140 respondents who filled out our non-standardized questionnaire in April 2023.

A significant difference in access to hygiene can be seen even among small children, depending on the social class and economic situation of the family. It is ideal to work on hygiene habits with children and to start active health education as soon as possible, to which public health workers, social workers, schools or resocialization facilities can also contribute if it fails family.

# A low level of hygiene means a high risk of disease

The lower the level of hygiene habits, socio-economic level and awareness of health protection methods, the higher the risk of developing and spreading infectious diseases and mortality (Sclar, 2016). Fecal-oral transmission is typical for infections spreading among this population. Wagner and Lanoix (1958) conceived the so-called principle 5F in fecal-oral transmission of enteric pathogens: fluids, fingers, food, fields and flies. In practice, the transmission of infection can be direct or indirect. In the case of direct transmission, the carrier itself is present, i.e. the source of infection, namely a sick infected person. Transmission can also be indirect, when the source may not be present, but the infection continues to spread through infected objects, surfaces, water or food. In the case of direct transmission, early diagnosis and isolation of the patient, including early therapy, prove to be an effective tool for eliminating the emergence and spread of infection. In the case of indirect transmission, other interested parties and authorities, state health supervision, public health professionals or EHS managers also play an important role.

The task of these parties is to create rules for safe work, hygienic work with food, control of the health safety of drinking water, health and hygiene education. In order for this process to work, the cooperation of all components is necessary. However, this is not always possible. Various psychosocial factors, cultural aspects, social dogmas or low economic income come into play.

# Current situation in the world and in Slovakia

According to WHO and UNICEF (2015) there are more than 2.4 billion people in the world without adequate sanitation and without access to clean drinking water. These are mainly

the countries of Western and South Asia, sub-Saharan Africa, Latin America, etc. In most cases, this is a population living in the countryside outside the cities, where access to clean water that is safe for health is difficult, and hygiene habits and health education are not emphasized, mainly due to the low economic level of the population, poor access to health care and education, political or cultural wars. In Slovakia, there is generally good access to healthy and high-quality drinking water, but there are also groups of the population that are threatened by generational poverty, lack of education and struggle with social and cultural problems. They are mainly marginalized groups of residents who, like the rest of the world, live mainly in rural areas outside cities. Their exact number is also unknown, it is estimated that there are approximately 500,000 inhabitants from this group, while two thirds of them live in ghettos or settlements isolated from the majority population (Stupak, 2013). Poor hygienic and social conditions mean higher mortality from infectious diseases. Children who continue their parents' way of life are also at risk, as it is practically impossible to get out of this vicious circle without outside intervention. Children who get to re-education centers have the opportunity and chance to get an education and basic hygiene habits. Pedagogical workers and public health professionals are dedicated to them. Some re-education centers determine the level of hygiene habits of newly admitted clients to the facility and also examine personal anamnesis in the case of infectious alimentary diseases such as hepatitis A, shigellosis, but also skin and mucous membrane infections such as scabies or parasitic pediculosis.

#### **Education for health**

Health education is a complex process including pedagogical, medical, epidemiological and social activities, but also environmental and marketing activities, the goal of which is the education and training of correct hygiene habits for the protecting, supporting and further developing health of the population, reducing the incidence of infectious diseases and reducing mortality. It requires the cooperation of experts, executive authorities and, if the social situation allows, families. It should be aimed at imparting knowledge about personal hygiene, hand hy-

giene, intimate hygiene, hair and nail hygiene, the need for clean clothes and linen and dental hygiene. In order for health education to be complete and comprehensive, it is necessary to supplement these habits with basic knowledge of food hygiene and work with them, as food and water are frequent factors in the transmission of infectious diseases.

In the case of infectious diseases transmitted fecal-oral, the goal of health education is to educate about the chain of infection and ways to break it. The chain of infection includes all possible potential risks of infection, while often these are places and surfaces that do not appear to be dirty or contaminated at first glance (RSPH, 2019). The chain starts at the source of infection, which is humans, animals, contaminated water and food. Proceeding from this source (feces, vomit, exudates, fluids, mucus, skin scales, liquids and juices from food), pathogens are spread through the hands to surfaces, tools, clothing, household items or food. The entrance gate is the mouth, eyes, nose, mucous membrane or small wounds on the skin. The chain is closed by entering the recipient, who participates in this cycle of pathogens, in most cases completely unknowingly. Some people have a higher risk of developing a manifest disease based on genetic predispositions or other external factors (stress, poor nutrition, weakening of the body).

People who live in poor social conditions, do not have sufficient financial resources, access to education and health care, do not have the opportunity to know this chain and do not know how to defend themselves against infections. As a result of chronic stress from existential problems and unhealthy nutrition, their organism is weakened, which causes a higher risk of pathogen multiplication and disease outbreak. Complicated access to adequate health care in turn increases morbidity.

# Supporting the health of children in socially weaker communities

Efforts to improve children's health development are among the main goals of public health activities. The good health of children is the basis of the social and economic development of the entire society (Hamade, 2010). Health promotion takes place with the active participation of individuals, groups, communities, organiza-

tions and society as a whole. Individuals can learn a healthy lifestyle and thereby take an active role in their own health. The company's task is to create such conditions for individuals so that a healthy lifestyle can be realized. These conditions include the protection and creation of a healthy environment, care for a good standard of living, creation of working conditions, support of education and information in relation to a healthy way of life (Machova, 2015).

In society, we observe inequality in the health of the population, especially in vulnerable communities. Disadvantaged, vulnerable, marginalized communities are population groups that, for various reasons, do not have the same access to education, health care and other areas of social life. Risk factors of vulnerability can be divided into non-influenceable (ethnicity, age, gender) and influenceable (poverty, health, education). Disadvantaged groups include the disabled, the unemployed, the homeless, children from socially weak families, the elderly and the Roma community living in segregated settlements. The residents of segregated settlements are demonstrably the most endangered and poorest population group in Slovakia (Hegyi, 2013).

Gulasova et al. (2010) describes the social situation of the Roma ethnic group as serious. A low level of housing, a devastated and polluted environment, poor quality nutrition, consumption of alcohol and tobacco products are factors in the unfavorable health status of the Roma community. Relatively often, compared to the majority, infectious diseases transmitted by fecal-oral, airborne and blood-borne routes occur in this population. These are infectious diseases of the digestive tract, skin, hair, diarrhea, viral hepatitis, sexually transmitted diseases and others. The massive disease burden is linked to insufficient hygiene, sanitation and water supply (Van der Geest, 2015). The deteriorating health status of the Roma population is the result of increased costs to society for treatment, hospitalization and incapacity for work. Therefore, health support programs for disadvantaged communities in Slovakia are essential.

Thus, health inequalities are largely attributed to social determinants of health. Inadequate hygiene can also be a cause of social rejection, especially for children from poorer families. Being rejected by peers for being dirty or smelly

creates in children a need to avoid such rejection. Motivation for positive hygienic behavior decreases and integration and socialization among peers becomes difficult. The family has the greatest influence on the formation of hygiene habits (Ramos-Morcillo et al. 2019).

With increasing evidence of the toxic effect of poverty on health and the widening gap in society (between the poor and the rich), families face challenges that adversely affect their ability to fulfill their fundamental role of preparing children for healthy and productive lives (McNeill, 2010).

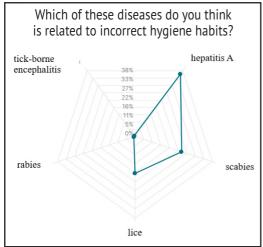
In the case of a dysfunctional family education strategy, inclusive education in schools could be a current solution. It is an open and dynamic process in which the diversity of pupils is positively accepted and enables empathy, equality, tolerance, non-discrimination and socialization. It creates favorable conditions for stimulating children's education. It significantly supports the health-preventive content of education, in which pedagogical and professional employees participate. Professional consultations for parents of students from socially disadvantaged backgrounds are a health intervention. A very effective strategy is the application of an all-day education system with the aim of directing the possible negative effects of the family and social environment. However, positive results are not possible without the cooperation of the family and the community. Without two-way communication, goals will remain at the level of one-sided efforts and good intentions (Liba, 2016).

# Hygienic habits and knowledge about infectious diseases

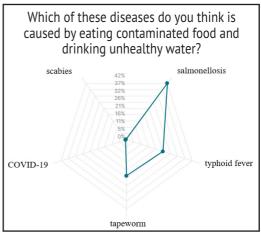
In connection with the issue of food-borne diseases and health education, we carried out an observational-descriptive research in which 140 respondents participated by random selection in order to ensure the same chance for respondents to participate. The inclusion criteria were over 18 years of age and a secondary vocational education. The exclusion criterion was age below 18 years. We chose a non-standard questionnaire with 21 questions as a data collection method. More than half of the respondents (55.4%) filled out the questionnaire in an average of 2-5 minutes, the success rate of the questionnaire was

at the level of 78.2% (a total of 179 participants were approached, of which 140 questionnaires were completely filled out and 39 were not filled in, only displayed). The questionnaire was filled out by 100 women and 40 men, while respondents in the 26-35 age group (48.6%) showed the greatest interest in participating in the survey, followed by the 36-45-year-old group (20%) and 18-25-year-olds (15, 7%). Regarding the question of the highest level of education achieved, the sample of respondents was more evenly distributed - 39.3% of respondents had completed high school education with a high school diploma, 27.1% of respondents had a first-level university education, and 23.6% of respondents had a second-level university education degree.

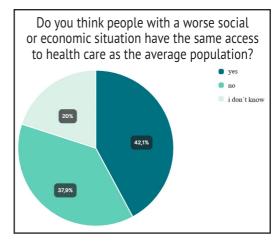
# People do not know what alimentary diseases are



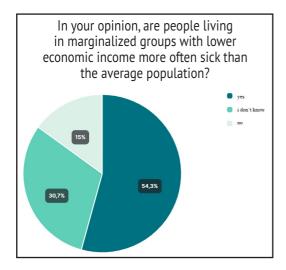
According to our sample up to 70% of respondents do not know what alimentary diseases are. However, when the respondents were given the choice to mark diseases that they believe are related to incorrect hygiene habits, most of the answers leaned in the right direction. Respondents could mark several answers at once. The majority of respondents (46.7%) associate hepatitis type A with incorrect hygiene habits, while up to 40.7% of respondents associate salmonellosis with the consumption of contaminated food



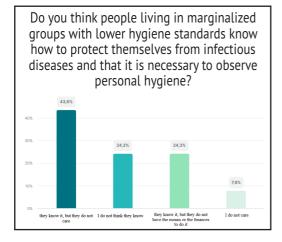
We also asked respondents about their opinion on morbidity in marginalized population groups and equal access to health care. According to 42.1% of respondents, persons with a worse social and economic situation from marginalized groups have the same access to health care as the majority population, 37.9% of respondents answered no and 20% of respondents could not answer.



According to 54.3% of respondents, people living in marginalized groups with lower economic income are sick more often than the general population, 15% of respondents could not answer and up to 30.7% of respondents think that they are not sick more often than the majority society.



We also asked the respondents for their opinion on whether, according to them, members of marginalized groups deliberately do not observe hygiene habits, according to 43.6% of the respondents, these people know how to protect themselves from infectious diseases but they still deliberately do not observe hygiene habits, 24.3% of the respondents think that they do not know it at all, another 24.3% of respondents think that these people know how to protect themselves from infections but do not have the means to do so, and for 7.9% of respondents, this issue is completely unimportant.



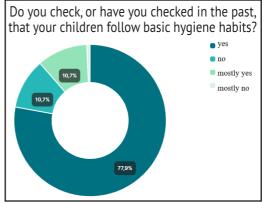
# Personal hygiene habits

We also ascertained the interviewees' personal level of compliance with personal habits. In the questionnaire, we asked whether they wash their hands before eating, 66% said that

they always wash their hands before eating, 31.9% of respondents usually wash their hands before eating, 1.4% of respondents usually do not wash their hands before eating, and one the respondent even answered that he does not wash his hands at all before eating.

### **Education for health**

We also asked our sample of respondents about their opinion on health education and basic knowledge about infectious diseases or whether they consider it important, while the majority of answers were unequivocally in favor of health education (94.3%), some respondents could not express their position on the question (4.3%) and two respondents even answered that health education is not important in their opinion (1.4%). Despite this, only 77.9% of respondents check or have checked in the past their children's hygiene habits (in the case of parents, respondents who do not have children were excluded from the question), 10.7% of parents mostly check their children's hygiene and 10.7 % do not control the hygiene habits of their children.



# **Conclusion**

According to our research, up to 70% of respondents do not know what alimentary diseases are, including parents, while 10.7% of them do not check their children's hygiene habits at all. A significant part of the respondents (43.6%) from our research also think that people from marginalized and excluded groups with a lower economic income deliberately do not follow hygienic habits, even if they know that they are exposing themselves and their surroundings to the risk of an infectious disease.

The emergence, outbreak and further spread of infectious diseases through faecal-oral transmission also have demonstrable social and cultural aspects, which in most cases have a negative effect on the health of the affected population. These negative social factors include a low level of education, poverty, a pathological family, alcohol and drug consumption, separation from the majority, rejection, chronic stress and minority disinterest or discrimination. Members of society who are strongly influenced by these factors do not have the capacity to comply hygienic habits, they do not know about the chain of infection and the risks when an infection can occur, and they do not even know basic preventive measures, the principles of caring for themselves and their environment, they do not know how to hygienically handle food and drinking water and do not distinguish the symptoms of infectious diseases. The result is higher morbidity in these population groups and, as a result of complicated access to health care, also mortality. In the 21st century we consider it unacceptable and inhumane to accept the higher mortality of certain groups of the population only on the basis of their lower economic and social level and we consider it important to give them a helping hand, to educate them about basic hygiene habits, the importance of taking care of their health, about the hygienic handling of food and drinking water. This is only possible by bringing together experts from the social field, from the field of public health, teaching staff and others. By educating children and families from socially disadvantaged communities, we will achieve better levels of health and a more positive society for all, with lower unemployment and better economic outcomes. However, we should not centralize education only for marginalized groups, but also for the majority.

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# Current Experience and Perspective of the Refugee Crisis in Western Slovakia in the Light of World Events in 2022

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Original Article

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#### Abstract:

Population migration within the global context is part of a group of various processes that result in significant changes in social, demographic, and economic structures. Currently and in the recent past, global migration flows have been mainly influenced by reasons such as armed conflicts, whether in Ukraine or in third-world countries. The presented contribution provides an overview of statistics on both legal and illegal migration of third-country nationals worldwide and within the European Union (referred to as the "EU"), as well as at the national level. Additionally, we offer a glimpse into our own experience in providing social assistance to Syrian citizens through the Crisis Intervention Center in Skalica in October 2023.

Author Bargerova (2016) considers migration as a process in which citizens of a certain country move, regardless of the reason. It involves the act of leaving one's country of origin. The author also addresses, among other categorizations, the distinction and definition of legal and illegal migration. Legal migration is defined as the crossing of borders of a specific state with valid travel documents or other documents that authorize a person to reside in that country. On the other hand, illegal migration is characterized by the unauthorized crossing of a state's borders, meaning the crossing without valid travel documents or documents permitting residence in that country.

As a fundamental definition, we consider the definition provided by the International Organization for Migration (IOM), which states that migration is understood as: "The movement of individuals or groups of individuals within a geographic and social space associated with temporary or permanent changes in their place of residence. Migration can be categorized as follows:

Foreign migration - the movement of individuals across the borders of sovereign states associated with a permanent or temporary change of residence;

Internal migration - the movement of individuals within one state associated with a permanent or temporary change of residence;

Voluntary migration - the free movement of individuals or groups, for example, for employment, family reunification, education, and the like;

Forced migration - involuntary departure from one's country of origin due to political and social problems, armed conflicts, natural disasters, severe livelihood and economic issues, or other long-lasting crisis situations;

Legal migration - crossing a country's border with a valid travel document, and possibly with valid visas and permits, if required for entry into the country;

Illegal migration - unauthorized crossing of a country's border without valid travel documents, visas, or residence permits, or staying in the country's territory without authorization after the expiration of documents, visas, or residence permits;

Long-term migration - the movement of peo-

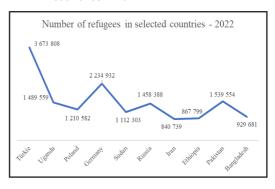
ple who change their usual country of residence for a period of at least one year;

Short-term migration - the movement of people who change their usual country of residence for a period longer than three months but shorter than one year, with the exception of cases related to vacations, visits to friends or relatives, business trips, medical treatment, or religious pilgrimages. " (https://www.iom.sk/sk/pre-media/zakladne-pojmy-o-migracii.html#migrant)

# Migration issues in the world and the European Union

According to the International Organization for Migration (IOM), more people currently live outside their country of origin than at any other time in history. This information is mentioned in the IOM World Migration Report for 2022. In 2021, the total number of international migrants was nearly 281 million, accounting for 3.6% of global migration, which represents an increase of 9 million compared to 2020. The report also provides another interesting statistic, indicating that more than seven out of ten refugees originate from countries such as Syria, Venezuela, Ukraine, Afghanistan, and South Sudan. When viewed from the opposite perspective, the countries that received the most refugees were Turkey, followed by Colombia, Germany, Pakistan, and Uganda. (https://worldmigrationreport.iom. int/wmr-2022-interactive/).

**Chart 1** Number of refugees in selected countries – 2022



Source: https://commission.europa.eu/strategy-and-policy/ priorities-2019-2024\_sk

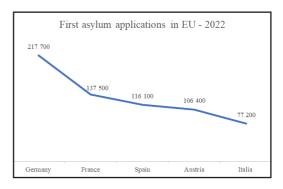
The graph above provides an overview of the numbers of refugees in selected countries within the global context, according to UNHCR. Turkey has the highest number of refugees as a percentage of its population, with up to 4.3%, followed by Uganda at 3.5% and Poland at 3.2%. When assessing the total population of the European Union (EU), the number of refugees constitutes 1.5%.

At this point, it is essential to highlight the difference between terms such as migrant and refugee, as they are often misinterpreted or confused. We will rely on the definition provided by UNHCR, the Office of the United Nations High Commissioner for Refugees. Its primary goal is the protection of the rights and safety of refugees. UNHCR also strives to ensure that the rights of all refugees are upheld without discrimination. This includes the opportunity to seek asylum or find safe refuge in the country they find themselves in, as well as providing assistance with integration and offering support in the event a refugee decides to return to their country of origin or relocate to another third country.

According to UNHCR, it is also important to distinguish between these terms. We consider a refugee to be "a person fleeing from armed conflict or persecution. Their situation is often so dangerous and intolerable that they cross national borders in search of safety in neighboring countries and thus become internationally recognized , refugees ' with access to assistance from states, UNHCR, and other organizations. They are recognized precisely because returning home is too dangerous for them, and they need refuge elsewhere. Refusing to provide asylum to these individuals can have potentially lethal consequences." On the other hand, a migrant is considered to be a person "who has not decided to move due to a direct threat of persecution or death but primarily to improve their life, find work, or, in some cases, for education, family reunification, or other reasons. Unlike refugees, migrants do not face these obstacles in returning home. If they choose to return home, they can still enjoy the protection of their gov-(https://unis.unvienna.org/unis/sk/ ernment." pressrels/2015/unisinf513.html).

If we look at the situation of migration from a European perspective within the EU, according to UNHCR data, by the end of the year, less than 10% of all global refugees lived within the EU. Due to the war event in Ukraine, this figure increased to 20% in the middle of 2020. In 2022, asylum seekers within EU countries came from a total of 140 countries. In that year, 962,200 applications were issued, with as many as 881,200 of these being first-time applications. This data signifies a 52% increase in applications compared to 2021. An important statistic is that up to 239,500 of these asylum applications were from individuals under the age of 18. According to UNHCR statistics, approximately every sixth person, totaling 39,500 individuals, was an unaccompanied minor. (https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/ promoting-our-european-way-life/statistics-migration-europe\_sk#utecenci-v-europe)

Chart 2 First asylum applications in EU - 2022



Source: https://commission.europa.eu/strategy-and-policy/ priorities-2019-2024 sk

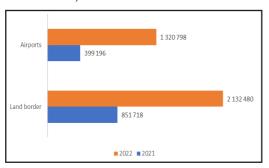
From the above, we can observe that the highest number of first-time asylum applications were submitted in EU countries such as Germany, France, Spain, Austria, and Italy. If we look at the numbers, the highest recorded number of applications in 2022 was in Germany, with a total of 217,700 applications by December 31, 2022, and Italy concluded the group of the most numerous EU countries with a total of 77,200 asylum applications.

# Migration situation in the Slovak Republic

Our aim in this contribution is to shed light on the situation regarding both legal and illegal migration in the Slovak Republic. Slovakia is not exempt from migration trends and has played a significant role in the case of refugees following the outbreak of the conflict in Ukraine. We also encounter constant migration of third-country nationals.

In the following section, we will present the results of statistics from the border and foreign police concerning migration issues in our country. The graph below provides an overview of the number of individuals who legally crossed the external border of the Slovak Republic during the years 2021 and 2022. It's important to take into account the increase in numbers in 2022, primarily due to the Ukrainian conflict.

**Chart 3** Legal migration to Slovak Republic, 2021, 2022

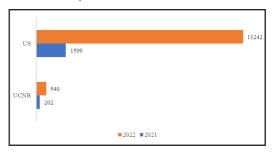


Source: https://www.minv.sk/swift\_data/source/policia/ hranicna\_a\_cudzinecka\_policia/rocenky/rok\_2022/2022rocenka-UHCP-SK.pdf

The above-mentioned statistics provide an overview of overall migration in the given years. However, if we want to focus exclusively on the migration of third-country nationals within the legal statistics, in 2022, temporary residence was granted to 98,281 individuals, marking an increase of 12,995 compared to 2021. Permanent residence witnessed an increase of 2,782, with 28,794 third-country nationals being granted permanent residence in 2022. Additionally, tolerated stay was granted to 95,450 individuals, as opposed to 2021 when it was granted to only 75 individuals. (https://www.minv.sk/ swift\_data/source/policia/hranicna\_a\_cudzineck a policia/rocenky/rok 2022/2022-rocenka-UH-CP-SK.pdf).

We would like to further highlight illegal migration, which is a part of the migration flow in the Slovak Republic, as in other EU countries and on a global scale. The following statistics from border and alien policy provide an overview of the total numbers, of which, in the case of unauthorized border crossings, there were 195 cases in 2021 and 540 cases in 2022, where the border was crossed outside an official border crossing point. In total, we can observe a difference between the years 2021 and 2022, with an increase of 10,022 cases.

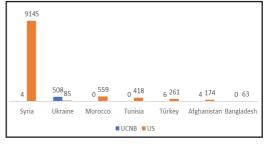
**Chart 4** Illegal imigration to Slovak Republic, 2021, 2022



Source: https://www.minv.sk/swift\_data/source/policia/ hranicna\_a\_cudzinecka\_ policia/rocenky/rok\_2022/2022rocenka-UHCP-SK.pdf Explanation: UCNB - Unauthorised crossing of national borders, US - Unauthorised stay

Statistics from border and alien policy also provide an overview of illegal migration in the territory of the Slovak Republic for the calendar year 2022. In the graph below, we provide an overview of the most numerous nationalities where unauthorized border crossings or unauthorized stays in the Slovak Republic were recorded.

Chart 5 Illegal imigration by nationality 2022



Source: https://www.minv.sk/swift\_data/source/policia/ hranicna\_a\_cudzinecka\_ policia/ rocenky/rok\_2022/2022rocenka-UHCP-SK.pdf Explanation: UCNB - Unauthorised crossing

of national borders, US - Unauthorised stay

### **Crisis Intervention Centre Skalica**

The migration situation is also complex on the western side of our country in the Záhorie region, where the Slovak Republic shares its border with the Czech Republic. This area experiences a significant flow of individuals aiming to reach Western European countries, primarily Germany and Italy. As a result of both past and recent events, in October 2023, the Crisis Intervention Center Skalica (CKIS) was established within the framework of the Memorandum of Cooperation between the College of Humanities and Social Sciences, and the Institute of Social Work and Nursing of MUDr. Pavol Blaha in Skalica (furthermore referenced as ,, institute") Center for Crisis Intervention Skalica (furthermore referenced as "CKIS").

The primary goal of CKIS is to provide crisis intervention to people in need, especially refugees, homeless individuals, disaster victims, and the like. CKIS focuses its efforts on ensuring crisis accommodation, clean water, clothing, hygiene, and, of course, basic healthcare (treating wounds, scabies, pain relief, and the like). Furthermore, CKIS is dedicated to offering psychological and spiritual support, all under the supervision of a designated individual for oversight and ethical values.

One of the recent practical experiences was the accommodation of a group of Syrian refugees. Due to the decision made by the Czech Republic, on October 13, 2023, border crossings were closed until further notice, making it difficult for refugees to cross through the usual border checkpoints. At that time, the Mayor of Skalica contacted CKIS with information that a group of Syrian refugees, including 13 minors aged 2 to 6, had been recorded by the municipal police in Skalica. In this case, CKIS was approached for the possibility of providing appropriate assistance, including shelter, hygiene, warm meals, access to clean drinking water, and other material support as required by the situation.

Subsequently, the group of refugees was relocated to the institute's premises with the participation and accompaniment of the City Police of Skalica, where they were provided with all the options for crisis intervention. In further collaboration with the Skalica Parish Charity, the refugees received warm meals and additional refreshments as part of the humanitarian aid collected by the students of the Institute of Social Work and Nursing, MUDr. Pavel Blaha, in Skalica, in case of an acute situation like the one described.

Thanks to the mentioned collection, the refugees also had sleeping bags, foam mattresses, and spare clothing. As a matter of course, a general physician was called to attend to the refugee group, who at that time did not identify any infectious diseases but confirmed several short-term colds among multiple individuals and health issues related to urinary tract infections in one of the minors.

The refugees were presented with all the legislative options available to them, should they wish to remain in the Slovak Republic and apply for asylum, but they did not express an interest in staying in our country. It was also recommended that, due to the deteriorating condition of several individuals, they stay in place until the early hours. However, the mentioned group of refugees subsequently left the center in the early morning hours.

In the conclusion, we would like to quote a significant passage from the interview with "our" refugee: "My name is Obaid Al-Mutlaq. I am from Syria, from the Deir ez-Zor governorate. I lived in the Levant for several months and I couldn't live, provide for and help my children and family. Living there is very difficult, so I decided to leace, and I came here with the hope and vision of providing a better future for my children. I hope that with the help of God, you and other generous and kind-hearted people, we will always be able to help each other in times of need, whenever any of us may require assistance. Rhat's iportant to me is that I have my children with me for which I am thankfu to God. They are aged 2 to 14 years old. I have an adult daughter, who is already married in Bulgaria for which I am grateful. Most importantly, all of my children are relative fine in terms of their health and my wife is also relatively okay despite som minor health issues."

**Figure 1** Refugees in the premises of Crisis Intervention Centre Skalica







## Conclusion

Based on various presented statistics, practical experience, and considering the development of current events worldwide, whether we are discussing the ongoing conflict in Ukraine or the current situation in Israel, it is necessary to keep in mind that the number of people fleeing from these and similar conflicts will only continue to grow. We are convinced that the vast majority of these individuals will not be interested in staving in our country. However, we also feel a sense of responsibility to take care of people in need, regardless of their race, gender, nationality, or ethnicity. Our priority should always be children and their mothers. Furthermore, we remain concerned that non-governmental organizations, in collaboration with voluntary forces, will continue to play a crucial role in these situations. Therefore, it is essential to ensure thorough preparedness.

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## Impact of Measures during the COVID-19 Pandemic on the Survival of Seniors in selected social Service Facilities

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#### Abstract:

**Objective**: The aim of the research was to find out seniors' experiences with pandemic measures in social service facilities.

**Design:** Descriptive cross-sectional study.

**Participants:** The file consisted of 44 clients of facilities for seniors in the Košice self-governing region.

**Methods:** Self-constructed questionnaire aimed at finding out which areas of seniors' lives were most affected by measures related to COVID-19. Data processing through descriptive statistics.

**Results:** We identified the negative experience of limited contacts of seniors with their family, the impossibility of performing leisure activities and participating in cultural and

social events. Negative experiences were also supported by the disease itself, as 34 respondents overcame the disease of COVID-19.

**Conclusion:** The results of our research indicate the need to support a multidisciplinary approach in addressing the effects of social isolation. We propose to strengthen the development of digital skills among seniors in order to maintain contact with their families and loved ones.

## Introduction

The COVID-19 pandemic has changed the lives of people all over the planet. Governments and states around the world have gradually introduced protective measures in varying degrees of intensity in order to mitigate the spread of the virus. In Slovakia, on March 13, 2020, the first nationwide measures against the spread of this disease began to apply. Seniors were and are one of the most endangered groups, because many health problems are associated with respiratory diseases. The measures limited the life and functioning of facilities for the elderly, as the elderly were considered by experts to be one of the most endangered groups.

There was information in the media that in several facilities for seniors, employees or clients have overcome COVID-19. The employees were quarantined in the facility, personal contact with the family was prohibited. Every facility for seniors tried to ensure the best possible quality of life for clients even under anti-epidemic conditions

Based on the recommendations of the Ministry of Labour, Social Affairs and Family of the Slovak Republic, it was possible to provide seniors with the necessary care in facilities for seniors, however, visits could not be carried out, with the exception of e.g. clients in the terminal phase of life, while these visits had to be guided by anti-epidemiological measures. It was necessary to enable family members to take the client into home care. Other recommendations showed that clients staying in facilities for seniors should not participate in group activities, social contact with other clients was limited, clients should not leave the facilities. It was therefore necessary to carry out more individual activities, individual education about the disease COVID-19, so that clients do not underestimate the situation, but at the same time so that they do not have unnecessary fear (Recommended procedures and forms ..., 2021).

According to the WHO, older adults in nursing facilities were at higher risk of contracting COVID-19 compared to the general population. The task of individual facilities during the COVID-19 pandemic was to create a crisis plan that was supposed to deal with the situations that arose. The crisis plan is a document, an internal regulation, which defines procedures and measures to ensure the functioning of the social service in a facility for seniors during a pandemic in connection with the disease COVID-19 (Crisis management ... 2020).

For seniors, a stay in a facility can trigger such negative emotions as, for example, anxiety, the meaninglessness of life and existence, or stress, to which, incidentally, the anonymity and uniformity of the given institutions can also lead (Hasa, 2019).

Several foreign studies show that many seniors are less mobile due to several physical, social and psychological problems and thus more at risk of pandemic measures than the younger population (Lloyd-Sherlock P. et al., 2020). Many seniors experienced intense loneliness, social isolation, and prolonged grief due to separation from their families and friends (Goveas J.S., Shear M.K., 2020; Grossman E.S. et al., 2021). All the mentioned situations result in deterioration of the quality of life of seniors in the psychological and social sphere.

The extent to which the aging population of Slovakia is feeling the effects of COVID-19 has not yet been sufficiently scientifically researched and documented.

## **Methods**

The study conducted had a descriptive cross-sectional study design. The file consisted of 44 recipients of social services in three facilities for seniors in the Košice self-governing region. The facilities confirmed their consent to data collection in writing. Data collection took

place in the period January - February 2022. During this period, facilities for seniors in Slovakia had restrictions on the entry of other persons, in two facilities data collection was carried out by social workers working in the facilities. The sample selection was purposefully available.

As a data collection method, we chose a self-constructed questionnaire. We focused on identifying the areas of seniors' lives that were most affected by the measures related to COVID-19 and who most often satisfied seniors' needs for safety and security. Socio-demographic variables were represented by the gender and age of the respondents.

Descriptive statistics methods in the SPSS 25.0 program were used to evaluate the data.

#### Results

The group consisted of 44 seniors, of the total number of respondents, there were 12 men and 32 women in the group. The determined age ranged from 68 to 93 years, average age 80.38 years, SD+ 6.1773. Due to the size of the set, analyzes of intersex and age differences between groups of respondents in the monitored areas were not performed.

Subsequently, we present in tables the absolute frequency of findings according to individual items, aimed at meeting the goals of the study.

Table 1 shows the findings of the respondents' subjective evaluation of the overall quality of life.

In their answers, the respondents tended to have a negative assessment of their quality of life in the period of pandemic measures in facilities for the elderly.

**Table 1** Subjective assessment of quality of life (N= 44)

| How would you evaluate the quality of your life in terms of your physical health, mental well-being, and social relationships over the past six months? | n  |
|---|----|
| Very good   | 2  |
| Good  | 8  |
| Neither good nor bad  | 20 |
| Bad   | 14 |
| Very bad  | 0  |

To compare the findings presented in Table 1, we state that in a freely constructed item we subsequently asked what worsens their quality of life. The created common categories mainly contained statements: restriction of visits, non-personal visits, inability to go to the city for walks, deteriorating health, overcoming COVID-19, missing family, pandemic measures taken.

In Table 2, we present the summary findings in the items aimed at expressing the degree of restriction of contacts with family and other clients in facilities according to the respondents.

**Table 2** The degree of impact of measures on respondents' contacts during the COVID-19 pandemic (N=44)

| To what extent have the measures related to COVID-19 in the facility affected your personal visits with family and contacts with other clients: | with<br>family<br>n | with<br>other<br>clients<br>n |
|---|---------------------|-------------------------------|
| Very  | 10                  | 0                             |
| Slightly  | 26                  | 4                             |
| I can't judge   | 2                   | 14                            |
| At least  | 2                   | 4                             |
| At all  | 4                   | 22                            |

Social isolation has become a new phenomenon across the population during the pandemic. It is a growing problem for the elderly. Social bonds, which are formed by regular interactions with family members and close friends, were perceived by the respondents as very or slightly influenced by measures in facilities for senior citizens. On the contrary, contacts with other clients in a closed community were not perceived as limited.

In Table 3, we present the summary findings in the items aimed at expressing the degree of limitation in participation in rehabilitation, therapies, leisure activities and in the availability of additional services in facilities according to the respondents.

| To what extent they have affected the measures related to COVID-19 in the facility: | Rehabilitation<br>and therapy<br>n | Leisure<br>Activities<br>n | Cultural<br>events<br>n | Additional services n |
|---|------------------------------------|----------------------------|-------------------------|-----------------------|
| Very  | 8                                  | 20                         | 28                      | 2                     |
| Slightly  | 6                                  | 16                         | 6                       | 16                    |
| I can't judge   | 6                                  | 0                          | 2                       | 0                     |
| At all  | 24                                 | 8                          | 8                       | 26                    |

**Table 3** Impact of measures on respondents' activities during the COVID-19 pandemic (N= 44)

In Table 4, we present the findings from the item focused on the degree of impact of pandemic measures on the respondents' mental and psychological well-being.

**Table 4** Impact of measures on the psychological and mental well-being of respondents (N= 44)

| To what extent did they influence the measures in connection with COVID-19 in your mental institution and mental well-being: | n  |
|--|----|
| Very   | 18 |
| Slightly   | 12 |
| l can't judge  | 0  |
| At least   | 4  |
| At all   | 10 |

**Table 5** Summary of the findings for two statements that were constructed as Lickert scales

| Attitude<br>to the<br>statement | The situation with COVID-19 has not affected my sense of security n | My rights<br>and free-<br>doms have<br>not been<br>violated in<br>situations<br>related to<br>COVID-19<br>n |
|---------------------------------|---|---|
| I totally agree                 | 6   | 8   |
| l agree                         | 20  | 18  |
| l can't judge                   | 0   | 14  |
| l do not agree                  | 8   | 0   |
| I don't agree at all            |   |   |

In Table 5, we provide a summary of the findings for two statements that were constructed as Lickert scales. Respondents could express their attitude to the statements on a 5-point scale from complete agreement to complete disagreement.

## **Discussion and Conclusion**

Ubiquitous information provided by the media during the COVID-19 pandemic increased the sense of isolation among seniors and may have caused many to feel ageism. Due to the high risk of death in case of infection, social isolation for seniors was paramount. Isolation has led to physical and psychosocial impacts that can be far-reaching in the years to come.

According to our findings, the pandemic measures taken in social service facilities caused seniors to be separated from family and friends, or any information about the happenings in the surroundings, which led to a negative evaluation of the subjectively felt quality of life, to a feeling of separation from the family. Several foreign studies support our findings (Goveas J.S., Shear M.K., 2020; Grossman E.S. et al., 2021). A positive finding of the authors of the Slovak study, Voľanská, Hlinčíková, Lutherová, (2022), is that children phoned their parents and older relatives to encourage them, or just to talk to them, to listen to them about how they live. Adult children have learned patience in communicating with grandparents, they are "more forgiving and kinder". Pandemic measures did not limit respondents' participation in rehabilitation and therapy in facilities for seniors. However, they felt limitations in participation in leisure activities, cultural events and partly also in the availability of additional services. Respondents also felt a deterioration in psychological and mental well-being affected by the measures taken. According to 26 respondents, the situation with

COVID-19 did not affect their sense of security, and according to 26 respondents, their rights and freedoms were not violated.

Ensuring and realizing the rights of citizens is the main mission of public administration. Likewise, to create suitable conditions for their life, as well as for the field of social care and social services for the target group of seniors. In the field of health, in multidisciplinary cooperation, use and more effectively apply the educational competence of nurses in practice (Gress Halasz, et al., 2020). One finds security in positive social relationships that help one overcome challenging life situations and represent a common source that enables experiencing the meaningfulness of life. The phenomenon of social support thus represents a social pool from which one can benefit in case of need; it influences the way one copes with difficult, challenging, and stressful events and alleviates their consequences. (Masan et al., 2021).

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## **Psychosocial Consequences of armed Conflicts on Society**

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## **Abstract:**

The article presents the study results of the negative impact of armed conflict on society. The research methodology involves assessing the level of psychosocial well-being of the population and internally displaced persons; identification and assessment of urgent psychosocial problems and needs affected by the war in Ukraine: identification of mechanisms for overcoming the negative psychosocial consequences of the armed conflict. The following psychosocial consequences of the armed conflict for Ukrainian society have been identified: low level of psychological well-being, socio-economic and humanitarian problems, personal security problems, acute psychological experiences associated with traumatic experiences, psychological problems of children, emotional problems, problems of social adaptation to new conditions of existence. It is noted that the impact of certain negative psychosocial consequences increases the risk of post-traumatic stress disorder among categories of the population (internally

displaced persons, combatants, children with traumatic experience, victims of violence, torture, captivity). It has been determined that in order to overcome the negative psychosocial consequences of an armed conflict, it is necessary to develop and implement a comprehensive system of psychosocial assistance to war victims through the implementation of the following mechanisms: educational and personnel mechanisms (training and retraining of specialists in the field of psychosocial support), institutional mechanisms (formation of a network of centers' and institutions providing social and psychological assistance), scientific and methodological mechanisms (implementation of best practices in the field of psychosocial assistance to armed conflict victims), organizational and managerial mechanisms (improvement of the management system in the field of psychosocial assistance).

## Introduction

Armed conflicts in the modern world have a negative impact on psychosocial health and well-being both at the individual and collective (social) levels, the consequences of which are forced displacement from war zones, socio-economic and humanitarian problems, poverty, stress and mental disorders. depression, post-traumatic disorders – PTSD, behavioural and adjustment disorders). As studies of the effects of war stress over the period 1985-2015 show, the quantitative indicator of PTSD is more than 20% of the population who survived an armed conflict [11; 12; 13; 14], and the psychosocial consequences themselves have a long-term negative impact [10, p.118]. Studies of the consequences of conflicts in the former Yugoslavia, Palestine, and Syria show that armed conflicts have a special impact on the mental development of children and their mothers [15; 16; 17; 18].

The full-scale Russian armed aggression on February 24, 2022 disrupts the economic and social development of the state and has a catastrophic negative impact on the life and health of citizens. The consequences of war cause lasting physical and psychological damage to adults and children. The number of sections of the population affected by hostilities has increased many times over, among which the most affected are:

1) internally displaced persons (IDPs), who suffered both material and psychological losses, which affected their psychosocial well-being;
2) children with traumatic experience (being in the occupied territories, in war zones, loss of relatives and parents, violence by the occupiers),

for whom the risk of PTSD is quite high [9]; 3) combatants, for whom the rate of occurrence of PTSD is even higher [8, p. 5]. Therefore, the creation of an effective system for overcoming the negative psychosocial consequences of military aggression is of particular relevance for Ukraine, which involves taking into account the social and psychological problems faced by Ukrainian society, the development of effective models of psychosocial assistance to victims, the formation of an institutional system of assistance, training and professionalization of personnel in the field of providing social and psychological assistance to various categories of the war victims.

Therefore, the purpose of this study is to identify and assess the negative psychosocial consequences of armed conflicts (the war in Ukraine) on society and to determine the mechanisms for overcoming the destructive influence.

## Methodology

The pilot study aims to identify the impact of the armed conflict in Ukraine (Russian full-scale military aggression on the part of Ukraine) on society, manifested in the form of negative psychosocial consequences for the population, internally displaced persons (IDPs), children with traumatic experiences, combatants, and also to identify mechanisms to overcome such negative psychosocial consequences. The methodological basis of the study is general scientific and empirical methods of cognition, which made it possible to identify such research tasks as: 1) assessing the level of psychosocial well-being of the population and internally displaced per-

sons; 2) identification and assessment of urgent psychosocial problems and needs of both the population as a whole and the most vulnerable categories of the population most affected by the armed conflict (IDPs, combatants, war children); 3) determination of mechanisms for overcoming the negative psychosocial consequences of an armed conflict.

## **Participants**

The study involved 445 participants, including: 1) 100 experts in the field of providing psychosocial support and assistance (psychologists, social workers, medical workers with a psychological education); scientists dealing with the problems of people affected by armed aggression; civil servants who manage the social protection of vulnerable categories of the population through an online survey; 2) 145 internally displaced persons from the occupied territories of the Zaporizhzhia region and Mariupol (the average age of the respondents is 43 years, of which 58% are women and 42% are men); 3) 200 people living in the front-line territory – the city of Zaporizhzhia (average age is 37 years, of which 64% are women and 36% are men). The study among IDPs and the population was conducted during September-October 2022, together with volunteer organizations and specialists who are engaged in the provision of primary psychosocial services to IDPs (especially from territories where hostilities are taking place) and vulnerable categories of the population in Zaporizhzhia city.

#### Methods

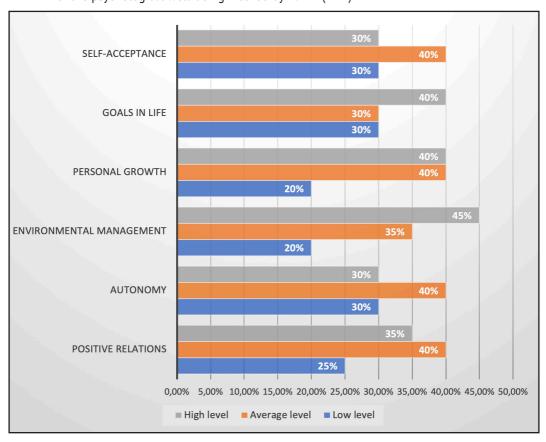
According to the specific tasks of the pilot study, we used the following methods: 1) to assess the level of psychological well-being of the population and IDPs, the Methodology "Scale of psychological well-being" (K. Riff) was applied – a variant of the questionnaire "The scale of psychological well-being" adapted by M. Lepeshinsky and translated into Ukrainian by S. Karskanova [1]; 2) to assess the current psychosocial problems and needs of both the general population and IDPs – a sociological survey of the population and IDPs in Zaporizhzhia city; 3) to determine the mechanisms for overcoming the negative psychosocial consequences of an armed conflict – an online expert survey. To pro-

cess the results of the study, methods of mathematical statistics were used (using SPSS 17.0 software) and a method of content analysis of respondents' answers to open questions.

#### Results

Assessment of the psychological well-being level. Modern concepts of psychological well-being combine the emotional aspect (satisfaction with life, positive perception of reality) and the activity-semantic aspect (meaningfulness of life, self-actualization, focus on the activity transformation of oneself and the world around) in the concept of psychological well-being, i.e. the psychological well-being of the individual manifested in the experience of the meaningful fullness and value of life, the feeling of satisfaction with life and oneself (as a subjective assessment of one's own psychological well-being), the achievement of actual motives and needs of the individual in the perspective of a socially significant goal with a focus on the future activity transformation of life [2; 3].

To assess the level of psychological well-being, the methodology "Scale of psychological well-being" (K. Riff) was applied. In general, the average level of psychological well-being prevails over the entire group of respondents – 335 points, and among the interviewed internally displaced persons (IDPs) this indicator is even lower – 286 points according to the normative values of the methodology (in the version of M. Lepeshinsky), taking into account the standard deviation. Such a level of psychological well-being within displaced persons is mainly associated with the inability to establish close social contacts with others, the closeness and emotional detachment of IDPs [5, p. 8]



**Figure 1** Distribution of groups of interviewed internally displaced IDPs according to the scales of the psychological well-being method by K. Riff (in %)

Among the low characteristics, most of all have such components of psychological well-being as positive deeds, personal growth, environmental management and goals in life. The figure 1 shows the distribution of groups of respondents according to the scales of the methodology (in %).

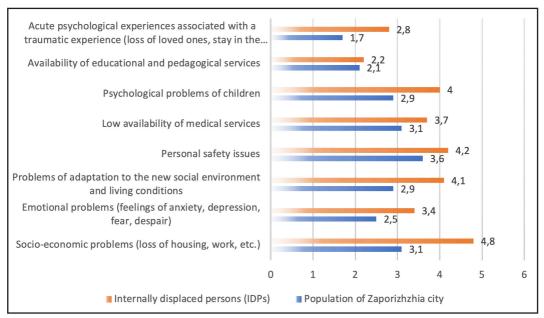
The results obtained by us do not reflect the assessment of the psychological well-being level at the national level, but their trend coincides with the results of a study by the Institute of Social and Political Psychology of the National Academy of Pedagogical Sciences of Ukraine, conducted by the online survey method on the Kantar Ukraine online panel, covering people aged 18-55 years in towns and cities of Ukraine with a population of more than 50 thousand [4]. So, the psychological consequences of the war include a long-term negative impact on the psycho-emotional well-being and purposeful activity of the individual against the background

of violations of social adaptation and social behaviour

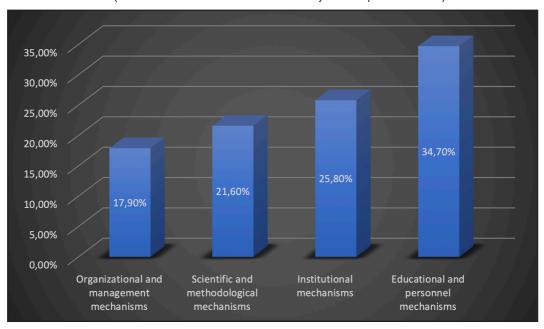
To assess the current social and psychological problems and needs of the population and separately internally displaced persons, the respondents were asked to answer the question "What social and psychological problems bother you personally and need to be addressed immediately?" It was proposed to evaluate on a five-point scale, where 1 – they have a slight effect, and 5 – they affect life activity significantly (Figure 2).

According to the results of the study, the most relevant and significant social and psychological problems for the population of frontline territories (Zaporizhzhia) and IDPs are: 1) for the population of Zaporizhzhia – problems of personal security (3.6 points), socio-economic problems (3.1 points), accessibility of medical services (3.1 points), psychological problems of children (2.9 points); 2) for IDPs, the most

**Figure 2** Assessment of actual social and psychological problems of the population of Zaporizhzhia and internally displaced persons.



**Figure 3** Mechanisms for overcoming the negative psychosocial consequences of a full-scale war in Ukraine (based on the results of a content analysis of experts' answers)



acute problems are of a material and humanitarian nature (4.8 points), problems of personal security (4.2 points), problems of adaptation to a new social environment (4.1 points), psychological problems of children (4 points), acute

psychological experiences of a traumatic experience (2.8 points) and emotional problems (3.4 points) have a significant indicator. So, the main psychosocial consequences of the war, which are negatively experienced by society, are so-

cio-economic problems associated with the loss of housing, work, forced migration; meeting the need for security; psychological problems of children; emotional problems and trauma that increase the risk and development of post-traumatic stress disorder.

To determine the mechanisms for overcoming the negative psychosocial consequences of a full-scale war in Ukraine, an expert survey was conducted online. The experts suggested answering an open question: "A full-scale war on the territory of Ukraine poses serious threats to the psychological health and well-being of the majority of the population. Please indicate what, in your opinion, will help to effectively counter these threats and overcome their destructive consequences for Ukrainian society?" A total of 189 statements were received (several options could be indicated). The content analysis of the experts' statements made it possible to single out the following groups of mechanisms for overcoming the negative psychosocial consequences of war in society: institutional, educational and personnel, scientific and methodological, organizational and managerial mechanisms (Figure 3).

The content of the selected categories of content analysis is as follows:

- educational and personnel mechanisms (34.7% of all statements). Typical answers: "training of specialists in psychosocial support", "increasing the qualifications of specialists in psychologists and social workers", "urgent training in providing emergency psychological assistance":
- institutional mechanisms (25.8% of all statements). Typical answers: "creation of a network of centers and institutions for psychological assistance to the population", "formation of a services system for the psychological and social rehabilitation of IDPs and combatants", "attracting foreign organizations to cooperate in overcoming the negative psychosocial consequences of the war, etc.;
- scientific and methodological mechanisms (21.6% of all statements). Typical answers: "formation of a model for overcoming the negative impact on the psychosocial well-being of the population", "incorporation and implementation of foreign experience in psychosocial support for victims of armed conflicts", "development and implementation of adap-

- tation and resilience programs for IDPs and combatants based on the resilient approach" implementation of training courses and training programs for specialists in the field of mental and psychological health";
- organizational and managerial mechanisms
   (25.8% of all statements). Typical answers:
   "Improving the system of governance and
   management in the provision of social and
   psychological assistance", "Decentralization
   and expansion of the autonomy of social work
   institutions", "Involving public and voluntary organizations in the provision of social
   and psychological services in cooperation",
   "Promoting intersectoral social partnership in
   a system of psychosocial support for war victims, etc.

## **Discussion**

The results of the study indicate that in the conditions of armed conflicts there are two types of psychosocial traumas (as their consequences) - collective and individual. In the context of the realities of the war in Ukraine, collective trauma concerns both the entire society and individual vulnerable segments of the population most affected by hostilities (IDPs, combatants, children with traumatic experiences, people who have lost loved ones, etc.). For the Ukrainian society, the characteristics of collective mental trauma, according to researchers, are social frustration, a deep collective sense of injustice, and the prolonged nature of traumatization [8, p. 3]. As we have found, an indicator of collective trauma is a decrease or loss of psychological well-being, especially in such parameters as the ability to control the environment, autonomy and goal setting in life, which can contribute to the emergence of individual trauma, manifested in the form of PTSD, chemical and non-chemical addictions, and disorders behavior, personality, nutrition, dissociative states, anxiety and depression, panic, even in bipolar affective disorder.

For the most vulnerable categories we have identified, a common manifestation of individual trauma is post-traumatic syndrome, among the symptoms of which are: re-experiencing traumatic memories, active avoidance of external or internal reminders of a traumatic event, changes in the cognitive and emotional spheres,

symptoms of excessive arousal, psychosomatic disorders [19].

An important aspect of the study was to identify mechanisms for overcoming the psychosocial consequences of the war in Ukraine, which creates a comprehensive system of psychosocial assistance to victims of armed conflict. As we have identified as an important aspect of such a system, there should be a staffing of specialists in the provision of psychosocial assistance, which implies high-quality training and retraining of psychologists, psychotherapists, social workers, and psychiatrists. In parallel with staffing, it is important to create a network of specialized centers, institutions and organizations for the provision of psychosocial assistance, institutionally implemented in the national system of social, psychological and psychiatric work, including the regional and local levels (providing for their certain autonomy).

Of particular importance are the mechanisms for the implementation and introduction of leading innovative models of psychosocial work with victims of armed conflicts, among which the resilience approach should be noted as the formation of resilience, adaptation to new conditions of existence and overcoming the consequences of stressful and emergency events [20; 21; 22].

The creation of such a comprehensive system of psychosocial assistance involves effective management at all levels of government using innovative social management practices [23].

## **Conclusion**

So, according to the results of the study, the following conclusions were drawn:

firstly, the psychosocial consequences of armed conflicts are manifested in the following: the emergence of a large number of groups affected by the war (IDPs, combatants, children with traumatic experiences, victims of violence, captivity, torture, etc.); a general decrease in the level of psychological well-being of the population; problems of a socio-economic and humanitarian nature; increased risk of psychological problems and mental disorders, PTSD; social adaptation and reintegration in the newest social conditions;

secondly, overcoming the negative psychosocial consequences requires the creation of an

effective and comprehensive system of psychosocial assistance to victims of armed conflict through educational, personnel, institutional, scientific, methodological, and organizational and managerial mechanisms.

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## Clinical and functional Assessment of the Risks of falling in the adult Community as a Factor of social Isolation and Lack of self-sufficiency in satisfying the Needs

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Original Article

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#### Abstract:

**Objectives:** The aim of our study was to highlight the importance of clinical and functional assessment of the risks of falling in the community of adult persons; to use the methods of critical assessment and analysis, to identify risk groups; to determine risk groups requiring preventive interventions and strategies to eliminate lack of self-sufficiency and subsequent social isolation.

**Design:** Cross-sectional study.

Participants: The sample consisted of 937 respondents between 50 and 95 years, who underwent a preventive check-up in one general practitioner's clinic for adults in 2021 y.

Methods: For the examination of the risk of falling we used a screening test. The clinical assessment was performed using method of content analysis of the person's medical documen-

tation: we searched records of the presence of falling factors defined in the screening test. Functional assessment was performed using the Morse Fall Scale. Using the regression analysis, we identified risk factors that influence the level of fall risk as an increase in points on the MFS point score before and after the fall occurred.

**Results:** The largest group of participants was with a low risk of falling (50.05%). We have found a medium risk of falling in 7.36% and a high risk in 5.66% of respondents. Only 346 persons (36.93%) achieved a score without the risk of falling. The average falling risk score in the entire sample (n = 937) was at the level of moderate risk (MFS score  $29.9 \pm 19.8$ ; min. 0, max. 105). The dominant risk factors for falls in the whole group were comorbidities and medications (62.3%), walking, balance and mobility disorders (20.9%), sensory disorders (14.6%), and voiding disorders (9.4%). For 2/3 of the participant, it is necessary to start to the development of intervention programs for the prevention of falls and subsequent social isolation.

Conclusion: Preventive examinations should include clinical and functional assessment of falling risk. The assessment results in decisive findings that correct the intervention procedures and preventive strategies of the multidisciplinary team. The results of the assessment can indicate and, if necessary, change the intervention procedures and preventive strategies of the multidisciplinary team. This can reduce the number of falls of patients not yet hospitalized, as well as the number of hospitalizations and surgical procedures due to falls. Doing so, the risks of social isolation and lack of self-sufficiency in adults would be eliminated.

## Introduction

Falls are the leading cause of injury and injury-related mortality in older adults [CDC, 2022; Sepala et al, 2021]. Clinical and functional assessment of the risk of falling in the adult community are essential for initiation of preventive measures in the home, work, and other environments, particularly in elder population (Lusardi et al, 2017; Cuevas - Trisan, 2019). As a part of clinical assessment numerous risk factors were studies- the need for nutrition, psychological status, pharmacotherapy, mobility and balance, vision, hearing, excretion, and daily activities (Matarese, 2015; Pitchai et al, 2019). A comprehensive assessment is a long-term process based on the cooperation of members of a multidisciplinary team. Brabcová et al. [3] demonstrated the importance of complex, interventional assessment of the risk of falls. As part of the intervention program, they achieved a decrease in the risk of falling. The fall risk index within one

year of interventions of the team decreased from 39.12 to 30.90. A functional fall risk assessment and intervention program reduced the fall index in surgical wards from 5.88 to 5.78 and in psychiatry from 14.24 to 7.48. The effectiveness of individualized intervention programs to reduce the number of falls among patients over 65 years was also found during a three-month study by Hart-Hughes et al. [4]. In the community of high-risk patients, the number of falls decreased threefold. The adjustment of pharmacotherapy was also transparent and effective intervention (50%). The second intervention (45%) was modification of the environment in the form of installation of safety aids (handrails) to maintain self-sufficiency in daily activities. Use of aids to support mobility (wheelchairs, walkers). Intervention programs are the prevention of social isolation of adults of different ages. A study by Hunderfund et al. [6], demonstrated the importance of a comprehensive clinical and functional

assessment of the risk of falls through a multidisciplinary approach. The study showed a reduction in the risk of falls per 1000 days from 5.69 to 4.12. Barillová [1] appeals for the need for multidisciplinary fall prevention in her study aimed at identifying risk factors for falls in patients treated as outpatients. The absence of fall risk assessment and intervention programs increase the occurrence of other health risks. They are undesirable events. They accompany adults during preventive health promotion programs implemented in medical spas. Hulkova [5] describes the management of adverse events in the Piešťany Spa in 2015 and 2016. 70% of spa clients were over 65 years of age, and the occurrence of adverse events, especially falls and injuries, was related to this. Falls and injuries were classified into four categories. The impact of deficient management of comprehensive falls risk assessment was fractures. The incidence of falls was clearly higher in women.

## Aim of the research

Our study aimed to identify the risk of falling in the community adults. We performed a comprehensive clinical and functional assessment of fall risk in adults in a general practitioner's office.

## Materials and methods

We conducted the study in a general practitioner's clinic for adults in the period from January 2021 to June 2021. All persons aged 50 years and over who underwent a preventive check-up in general practitioner's clinic for adults from January to June 2021, who agreed to participate were included.

The clinical assessment of the risk of falling was performed with a screening test (ST); the functional assessment was performed with the Morse Fall Scale (MFC). The screening test included six items to examine the state of the person in real-time: movement, voiding, medication, sensory impairment, mental status, and age. The total score of the screening test identified the level of falling risk of the person (table 1). A score greater than 3 indicated the need for fall prevention interventions. The Morse Fall Scale consisted of six items: history of falls, secondary diagnosis, walking, using of walking aids, intravenous therapy, and mental status. The total

score ranged from 0 to 45 points. The higher the score, the higher the risk of falling. Depending on the score, the participants were classified into four groups: no risk (0 points), low risk (< 25 points), medium risk (25-45 points) and high risk (> 45 points) (table 1).

**Table 1** The levels of the fall risk, Screening test and Morse fall scale

| Risk levels               | Screening test                 | Morse Fall<br>Scale          |
|---------------------------|--------------------------------|------------------------------|
| 1. risk-free<br>level     | $\Sigma = 0.10 \text{ points}$ | $\Sigma = 0$ points          |
| 2 low risks<br>for falls  | $\Sigma = 1.48 \text{ points}$ | $\Sigma = 15 \text{ points}$ |
| 3 medium risks for falls  | $\Sigma =$ 2.86 points         | $\Sigma = 35 \text{ points}$ |
| 4. high risk<br>for falls | $\Sigma = 4.05 \text{ points}$ | $\Sigma = 74 \text{ points}$ |

## **Data Analysis**

All data were coded, entered, and analyzed using SPSS version 20 (IBM SPSS, 2020) and Microsoft Office Excel 2010 (Microsoft Corporation, Redmond, WA, USA).

Descriptive results, expressed as frequencies and percentages were analyzed at  $\alpha \leq 0.05$  to determine statistical significance, using Chisquare test ( $\chi 2$ ). Regression analysis, was used to examine the relationship between risk factors and the level of fall risk as an increase in points on the MFS point score before and after the fall occurred.

The study was done in accordance with the ethical standards and with the Helsinki Declaration of 1975, as revised in 2013 (Moris, 2013). It was approved by the ethical committee of the St Elizabeth High school of Bratislava, Slovakia.

## **Results and Discussion**

The survey was conducted on a sample of a total of 937 participants, with 420 men (44.82%) and 517 (55.18%) women aged 50 and over (n=937) (table 2).

We identified a direct relationship between the outcome of clinical assessment (ST) and functional fall risk assessment (MFS).

The classification of all participants according to the level of fall risk is showed in table 3.

**Table 2** The sex and the age of the participants

| Gender                  | n   | %     | Average age |
|-------------------------|-----|-------|-------------|
| man                     | 420 | 44.82 | 62.71       |
| woman                   | 517 | 55.18 | 65.39       |
| Total No/%, average age | 937 | 100   | 64.19       |

There is significant difference between the women and men. (x2 11.5974. p < .01). A significantly more women are at a higher risk of falling.

For 36.9% of respondents (n = 346), we did not have any falls in the last three months (table 3). Their average age was 55.3 years. They are not treated for serious diseases, have no comorbidities and do not even have medical treatment that could affect the risk of falling. They walk without difficulties. They do not need intervention programs to stabilize their walk. They are

not at risk of social isolation. Their movement regime is appropriate for their age and voiding is physiological. Sensory disorders (visual, auditory) were found in only 35 persons (10.25%). The evaluation of the risk of falling in this group shows that there is no need to indicate the preventive measures.

In 50.1% (n=469) of respondents, the tests showed a low risk of falling (table 4). The screening test score was 1.48 and on the MFS scale it was 15 points. Their average age was 67.9 years. In this group, the identified risk factors for falling included comorbidities and medication in 99.79% of participants (n=468).

In 5.7% (n = 53) of the assessed adults with an average age of 74.5 years a comprehensive assessment showed a medium risk of falling (table 5). MFS score was 35 points, ST score was 2.86 points. The tests assessed the presence of risk factors: comorbidity and medication

**Table 3** Classification of all participants according to the level of fall risk

|                        | women |       | m   | en    | total |       |
|------------------------|-------|-------|-----|-------|-------|-------|
| Level of the fall risk | n     | %     | n   | %     | n     | %     |
| No risk                | 174   | 33.65 | 172 | 40.95 | 346   | 36.9  |
| Low level of risk      | 262   | 50.67 | 207 | 49.28 | 469   | 50.05 |
| Medium level of risk   | 39    | 7.54  | 14  | 3.33  | 53    | 5.65  |
| High level of risk     | 42    | 8.12  | 27  | 6.42  | 69    | 7.36  |
| total                  | 517   | 100   | 420 | 100   | 937   | 100   |

**Table 4** Participants with low risk of falling

| A group with a low risk of falling         |       |       |            |       |  |
|--|-------|-------|------------|-------|--|
| Count                                      | Women |       | Men        |       | ST score- 1.48 points<br>MFS - 15 points |
| Σ 469 (n)                                  | n     | %     | n          | %     |  |
| 50.05 (%)                                  | 262   | 55.88 | 207        | 44.12 |  |
| Average age                                |       |       | 67.9 years |       |  |
| A risk factor for the group                |       |       | n          |       | %  |
| Fall in the last three months              |       |       | 0          |       | 0  |
| Disorders of walking, balance and momentum |       |       | 2          |       | 0.43                                     |
| Emptying disorders                         |       |       | 10         |       | 2.13                                     |
| Sensory disorders (visual, auditory)       |       |       | 61         |       | 13.01                                    |
| Comorbidities and medication               |       |       | 40         | 68    | 99.79                                    |

| Risk factors                         | Women (n=              | 39/73.6%) | Men (n= 1 | ./26.40%) |
|--------------------------------------|------------------------|-----------|-----------|-----------|
|                                      | n                      | %         | n         | %         |
| Gait and balance disorders           | 31                     | 28.4      | 9         | 19.56     |
| Momentum disorders                   | 20                     | 18.34     | 7         | 15.21     |
| Emptying disorders                   | 15                     | 13.76     | 6         | 13.04     |
| Sensory disorders (visual, auditory) | 10                     | 9.17      | 6         | 13.04     |
| Comorbidities and medication         | 31                     | 28.41     | 18        | 38.13     |
| Impaired mental health               | 2                      | 1.83      | -         | -         |
|                                      | 109                    | 100.0     | 46        | 100.0     |
| St score                             | ST score - 2.86 points |           |           |           |
| MFS                                  | MFS - 35 points        |           |           |           |

**Table 5** Participants with medium risk of falling (average age 74.49 years)

**Table 6** Participants with high risk of falling (average age 75.72 years)

| Risk factors                         | Women (n=              | 42/60,89%) | Men (n= 2 | 7/39,11%) |
|--------------------------------------|------------------------|------------|-----------|-----------|
|                                      | n                      | %          | n         | %         |
| Gait and balance disorders           | 10                     | 5.88       | 10        | 12.35     |
| Momentum disorders                   | 33                     | 19.41      | 24        | 29.63     |
| Emptying disorders                   | 34                     | 20         | 23        | 28.40     |
| Sensory disorders (visual, auditory) | 16                     | 9.41       | 8         | 9.88      |
| Comorbidities and medication         | 44                     | 25.88      | 23        | 28.40     |
| Impaired mental health               | 40                     | 23.53      | 24        | 28.63     |
| Total                                | 170                    | 100.00     | 81        | 100.00    |
| ST score                             | ST score - 4.05 points |            |           |           |
| MFS                                  | MFS - 74 points        |            |           |           |

(92.5%), walking and balance disorders (75.5%), movement disorders (50.1%), voiding disorders (39.6%), sensory disorders (30, 2%). 3.8% of respondents had impaired mental health. Average number of risk factors in women was 2.79, in men 3.78. The difference was not significant (p value .52783. NS).

In 7.4% (n = 69) of the assessed adults with average age of 75.7 years the high risk of falling have been found (table 6). MFS score was 74 points, ST score was 4.05. The main risk factors were comorbidities and medication (97.1%), impaired mental health (92.7%). 82.6% of participants had movement and voiding disorders, 69.6% had gait and balance disorders. Sensory disorders were identified in 36.2% of respondents. Average number of risk factors in women

was 4.04, in men 3.0. The difference was not significant (p value .123243. NS).

Based on this research, we are of the opinion that the fall risk assessment in the community is justified. The assessment tools (MFS) can be the same as in patients hospitalized in internal and neurological departments (Bóriková et al. [2]). The choice of a tool for functional risk assessments (MFS) of falls is in accordance with the recommendation of Poledníková [10] as well as the choice of a screening test for a comprehensive fall risk assessment.

We determined the screening test score from the available medical records of the participants. We are aware of the risk of incompleteness of the record and the tests. However, other tests are, according to the published papers also incomplete. No single gait, balance or functional mobility assessment in isolation can be used to predict fall risk in older adults with high certainty. Moderate evidence suggests gait speed can be useful in predicting falls and might be included, but only as part of a comprehensive evaluation for older adults (Checa - Lopez et al, 2019, Beck Jepsen et al, 2022). The study of Yasan et al (2020) drew attention to this fact. [13]. The results of the study demonstrated that there is a significant gap between the identification of the patient at high risk of falling and the documentation. This means that not all high-risk patients have been identified. Mikuľáková and Bodnárová [9] also applied the clinical assessment of the risk of falling from medical records. The risk of falling was assessed by the Berg Balance Scale (BBS). They proved statistical significance for individual risk factors in connection with the degree of fall risk. In a community of adults with a high average age (70.07 years, SD  $\pm 23$ ), they identified up to 100% high risk of falling. Respondents classified as high-risk in our group had a comparable average age (75.72 years). This is also why we appeal to the need to implement assessment of the risk of falling in outpatient care. Vlková and Gerlichová also draw attention to this need [12]. The results of their study showed that 90% of respondents (n=50) require early assessment of fall risks. The most numerous risk factors for falling in our entire group included comorbidities and medication 62.3%, gait, balance and mobility disorders 20.9%. Sensory disorders 14.6% and voiding disorders 9.4%. The order of risk factors compared to Miertová et.al. [8] differs. They investigated similar risk factors in a community of hospitalized patients (n = 298). The most numerous risk factors were impaired gait, balance and mobility (80.9%), which is the most typical for the department, drug therapy (57.0%), associated diseases (52.7%), and impaired vision (52.3%). Impairment of balance and gait as a risk factor for falling was demonstrated in a survey by Šulíková et.al. [11] They demonstrated a 30% association between fall risk and balance and gait disorders.

## **Conclusion**

Falls can happen anytime and anywhere. They arise due to the influence of various currently present risk factors. Based on the results of our study, we can state that the bserved sample of adult patients showed negative health characteristics. Health consequences caused by falls can be long-term. Therefore, the importance of fall risk screening, in-depth clinical and functional examination of a specific risk is increasing. The absence of a comprehensive fall monitoring program, fall prevention program, and multifactor assessment remains an open and unresolved question. There are no training programs, intervention programs, management strategies by a multidisciplinary team, with the aim of reducing the risk of falls to a minimum.

## Limitations

A limitation of the study was the wide age range of the respondents. Age in the range from 50 to 95 years evokes a wide range of fall risks resulting from the work classification, the nature of housing, the performance of the profession, social interaction, etc. The health support of the community of the examined adults can be managed in the process of preventive examinations to a limited extent. Economically passive persons do not show an active approach to promoting health and preventing falls. The limit of the study is the data obtained from the medical documentation. It is debatable to what extent the clinical fall risk assessment record is valid.

## **Conflict of interest**

The authors declare no conflict of interest

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# Reflection of the Reasons for the Emergence and Expansion of marginalized Roma Communities in Slovakia after 1990

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Original Article

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#### Abstract:

Objective: Considering the social importance of this particular issue, we might register continuous interest in the Roma issue. Publications of shorter or wider scope are available nowadays, especially after Slovakia joined the European Union, in which there is a policy aimed directly at the fight against discrimination and racism. As of the assessment of available sources, these range from short informative articles to scientific monographs. Almost all the scientific publications reviewed were based on a quantitative research design. The common denominator of these works was to research and present quantitatively related to some of the aspects of life indicators of members of the Roma ethnic group.

Our research aimed to identify the territory of the emergence of new excluded Roma communities in Slovakia.

**Design and methods:** The research was conducted in a qualitative design. The main methods for data collection were

semi-structured interviews, focus groups, and observation.

Participants: The research set was created by combining the available selection (Gavora et al., 2010) with the selection of compact groups. The members of the research group were 39. Results: Based on the results, the identified significant factors that contributed to the creation and expansion of new marginalized Roma communities include *prejudice and discrimination*, job loss consequences of restitution.

**Conclusion:** Our findings point out that marginalized Roma communities are the result of a range of political, social and individual economic factor. We suggest verification by through quantitative research

## Introduction

The existence of people living on the edge of society was already an object of interest in the Middle Ages when society tried to support individuals, or even entire families, who found themselves on the edge of social exclusion through voluntary help and charity. The majority society and marginalized social groups threatened by social exclusion have coexisted for centuries.

Theoretical concepts of the study of the social exclusion began in Europe in the 1970s (Vela-Jimenéz et al., 2021; Labonté et al., 2011, Pirani, 2011), i.e., relatively late. This concept got social attention primarily because the growing poverty raised concerns about the disruption of social cohesion and thus the stability of society. Economic insecurities reinforced by insufficient conventional measures focused on eliminating poverty also disturbed the normative social functioning (Labonté et al., 2011). Gradually, the concepts of poverty shifted to the emergence of the concept of social exclusion, which is currently understood not only as a complex and multidimensional process that is a disturbing element in social and economic development (Levitas et al., 2007), but also as no longer associated a priori only with the financial shortage. Social exclusion means not only the denial or lack of resources, goods and services but also the inability of an individual to participate in every day relationships and activities available to most people in society, whether in the economic, social, cultural or political spheres (Labonté et al., 2011, Atkinson, 1998). As noted by Atkinson, Marlier and Nolan (2004), the concept of social exclusion increasingly points to the links between the economic and social spheres and the need to find and keep a balance between them. At

the beginning of this millennium, the number of socially excluded individuals and groups living in cities also increased. Therefore, socio-pathological, antisocial phenomena and criminal acts has also naturally increased. The migration of these social groups across EU countries is as well a modern phenomenon in Europe. Because of the permanent increase in social exclusion, the UN included goal number 11 in the 2030 Agenda aimed at sustainable development, which focuses on achieving sustainable cities and communities, within which special attention is paid to socially excluded parts of cities (United Nations, 2022).

Currently, the concept of social exclusion includes social groups that are in any way excluded from ordinary social life. This approach was supported by several authors such as Beall (2002), Gore and Figueiredo (1997), who protested against linking social exclusion mainly with the low income of excluded citizens. As they concluded, linking social exclusion with low income may signal that the responsibility for social exclusion lies with the individuals themselves who are affected by this phenomenon.

Townsend (1979) contributed to this discourse by introducing non-monetary measures to emphasize the multidimensionality of the concept. Therefore, people are socially excluded not only when they lack the resources to cover basic needs but also when they do not have an access to such living conditions and services expected in the society to which they belong. Social exclusion can thus be characterized as a forced lack of socially perceived needs, based on which it is possible to distinguish between those individuals who cannot afford to fulfill their needs and those who have decided not to fulfill the needs of their own free will (Mack, Lansley, 1985). Brady

(2003) points to the fact that the majority society determines the scope and level of needs that enable citizens to access decent living conditions. The concept of social exclusion thus includes, in addition to poverty, educational disadvantage, poor health, inadequate housing, living in poverty areas (Townsend, 1979, Atkinson, Hills, 1998, etc.). Sena (1982) recommended that the concept of social exclusion also reflects the degree to which these individuals can participate in the critical activities of the society in which they live. It is, therefore a matter of considering the fulfillment of the principle of equality in the particular society. As a result of these discussions, in the 1990s, the UN affirmed that income is not the goal of human development but a means to it. As the UN states in its documents, human development is determined not only by economic factors but also by non-economic factors, among which are the crime rate, the social status of women, respect for human rights, access to education and services, including social and health. The result of these trends was the determination of the Human Development Index (HDI) in 1992 (Borooah, Hillyard, Tomlison, 2006, Courtin, Knapp, 2017). The annual HDI measurement can thus be understood as a tool for reducing the risk of poverty and social exclusion. The concept of social exclusion gained a new dimension after Atkinson (1987) recommended that it be approached from a human rights perspective. Atkinson and Hills (1998) then formulated three key ideas, namely:

- a) the relativity of exclusion, which must be reflected in the particular moment and context;
- the dynamics of exclusion, which refers to the need to understand exclusion over time, which requires long-term monitoring to be run;
- an effort to distinguish whether it is a voluntary exclusion based on one's own choice or an involuntary, i.e., structural, exclusion.

Thus, social exclusion unites specific individuals and the social and physical environment in which people live (Saunders, Naidoo, Griffitha, 2008, Buck, 2001).

## Social exclusion in the conditions of Slovakia

Theoretical concepts are essential primarily from a scientific and political point of view. However, they only minimally influence the

opinions of the public; intergenerational transmission has a more significant influence on them, i.e., the transmission of information and attitudes from generation to generation. As part of this transmission, not only specific information is transmitted, but also prejudices associated with social exclusion. The persistence of prejudices in Slovak society can be identified as one of the factors affecting the dynamics of social exclusion. Paradoxically, it is the experience of prejudice that unconsciously affects some experts who influence citizens affected by social exclusion.

In the minds of the Slovak public, social exclusion is today almost exclusively associated with marginalized Roma communities (hereinafter referred to as MRC). MRC on the territory of today's Slovak Republic can be divided into two groups according to the time of their creation. The first group consists of MRCs, which we could describe as traditional. These are communities whose origin is associated with Maria Theresa, who in 1773 decided on a series of restrictions on the Gypsies, the most famous of which is the ban on uncontrolled traveling. Based on this decision, Roma were allocated plots of land on which they could settle. These were uninhabited, often forested sites that needed to be cleaned. This type of MRC was kept even after the creation of Czechoslovakia in 1918. Segregation tendencies were partially mitigated in 1948-1989, but this did not contribute to the liquidation of those Roma communities outside the inner city of the municipalities. At the same time, social experiments produced new types of MRC, such as, e.g., Luník IX (quarter of Košice). The exact number of Roma living there is unknown; the estimate is around 6,000, of which about 2,300 are children. A new type of MRC is communities that were created after 1990. The creation of these communities is discussed rather exceptionally in the domestic environment. New MRCs, which were the object of our field research, were created or expanded during the last thirty years from an initially small group of Roma families who lived in the locality even before 1990.

The governments of the Slovak Republic have long been striving for a comprehensive approach to solving this problem, which can also be seen in the development of the document Strategy for Roma Equality, Inclusion and Participation until 2030 (hereinafter referred to as Strategy 2030), which was the form of Government Resolution no. 181/2021 adopted on April 7, 2021. Within this document, four key priorities were defined on which application practice should be focused in the following years: employment, education, health and housing. By implementing this strategy, the government expects not only an improvement in the socio-economic situation of the Roma, but also the elimination of racism directed at the Roma. which also has an institutional character in Slovakia. It is clear from the content of the document that it has set itself the goal of stopping the segregation of Roma communities, improving the social inclusion of Roma and changing the attitudes of the majority towards Roma, which is a prerequisite for improving the coexistence of the majority and the minority (Strategy 2030, 2021).

Strategy 2030 was also supported by the inclusion of methods of financing individual partial tasks, which can be described as a good prerequisite for its implementation. It seems that the only element that Strategy 2030 did not consider is the readiness of Slovak society for this change, both at the level of the majority and the minority. A period of 9 years cannot be considered sufficient to realize such challenging goals, which are included in Strategy 2030.

## Methodology

This paper is based on the author's findings, researched as part of a more broadly conceived field research focused on identifying the environmental problems of the residents of MRC. Our research used the following methods for data collection: semi-structured interviews, focus groups and observation. The field research took place from August 2021 to November 2022. As part of the research, we collected data from 12 MRCs, of which four communities were part of urban areas. Although the remaining communities are located in the catastral territory of individual cities and municipalities, they are significantly spatially separated. The main objective of this study is to identify the causes of the emergence of new excluded Roma communities on the territory of the Slovak Republic, i.e., those MRCs created after 1990.

The available selected file (Gavora et al., 2010) was used to create the research set in combination with selecting compact groups. In total, 25 semi-structured interviews and six focus groups were conducted as part of the research. The research team consisted of 5 mayors, five female social workers, two social workers and 27 residents of MRC. The participation of all informants in our research was voluntary.

The researched data we obtained were transcribed and processed using thematic analysis (Braun, Clarke, 2006).

## **Own findings**

Based on the analysis, we have identified three key themes in connection with the creation of new MRCs and their expansion: **prejudice** and discrimination, job loss, and consequences of restitution.

## **Prejudices and discrimination**

In the 1990s, due to economic and political changes, a high unemployment rate hit Slovakia, and Roma were among the first to lose their jobs. A frequent and sometimes the only reason was their ethnicity. This fact was also confirmed by P1(pd): "This was originally a state cooperative company apartment building in which 3 Roma families lived. All adults worked in a collective farm. After 1990, individual cooperatives and businesses began to disappear, and thus the possibilities of work and accommodation for Roma families also disappeared. During this period, several municipalities and cities reacted negatively; they did not allow more to join the local Roma families. The Roma who had some relatives here came here first... and finally those who needed to settle somewhere." Another participant had a similar experience. "Everyone has a family, so I told my sister, come here; the mayor doesn't cause problems. We will find some wood in the forest, build you a hut and it will be great.." (P4pd). After years of outwardly peaceful coexistence of the majority with members of the Roma ethnic group in the 1990s, the Roma became unwanted neighbors. This problem resonates in society even today. We rarely encounter the reaction described by one mayor> "When it was bad out there, I asked them if I should evict the families with children and where? I also reminded them that a few years ago, they worked together in a factory in a cooperative... And so we have 300 more of them here..." (P2pd). P7(pd) assessed this situation similarly, "It's as if they forgot that we worked together for years, we also party and did things together...they didn't remember any of it. We were just gypsies.." New MRCs also grew due to physical attacks on Roma families living in cities, which happened repeatedly in the 1990s. "A cousin lives with his family somewhere there. They came here after skinheads repeatedly attacked them at night" (P31pd). These answers to the probands explain how the new MRCs were created but do not explain how they may still be a Slovak reality. The mayor pointed out one reason: "In the early 1990s, nobody dealt with it...we got used to such problems as unemployment, usury, etc. After that, when people were fighting for work, it was appropriate to point out that Gypsies are lazy; they don't want to work... Who would take care of them? Politically, it was an uninteresting agenda for so long that it became a serious problem. Some non-profit organizations and activists were here, but they didn't have the power to solve it... Some mayors solve it like I do, but everyone is alone. I wonder how it will be next...." (P2pd). Moving to a settlement is often the only solution for a Roma family who loses their home. However, this trend does not always meet with the majority's understanding. The acceptance of additional Roma as residents of the village is an exception, even if the Roma moves to the outskirts of the village. Most of society is worried that the growth of most people without work, living on benefits, will only bring problems. They fear theft, disorder and harassing behavior often associated with Roma.

#### Job loss

One of the consequences of the change in political and social orientation after 1989 was the sudden onset of unemployment caused by the disappearance of long-term employers. "Before that, there was a factory here... There were a few houses down here, so poor, but you could live in them. Women either worked in cooperatives or took care of children. The men worked in the factory. The factory was closed, the men lost their jobs, and the cooperative collapsed within half a year. I don't even know when exactly more Roma arrived, but you can tell by the cottages,

which are poorer and poorer." (P2sp). One of our participants described it as follows: "There were four families here. We all worked in the cooperative; the children went to school...And suddenly there was no work. Our apartment building belonged to a cooperative; I don't remember who bought the cooperative first and last. What remained of the cooperative were the dilapidated buildings that housed the cattle and these two apartment buildings. White people used to live there; they left a long time ago. When my brother-in-law told me they had nowhere to live, I said come here; apartments are available. And so they came." (P3sp). Job loss, debts, financial executions were the most common reasons several Roma families lost their homes. "You know. ma'am, we all worked under socialism. There was enough work even for us, Roma. Yes, there were rascals among us, but weren't they among the white people? We would all like to work because if we had a job, we would also have a salary. Do you think we want to live like this? (P8sp). They see the lack of work as a cardinal problem also from the point of view of raising children and youth. "Dear lady, there is already a third generation of young people growing up here who don't know what it's like to go to work every day. Yes, early in the morning, if you came, you would see how entrepreneurs arrive with vans and choose whom they will take today and who will stay home... If you are lucky, they will choose you and you will receive the money in your hand in the evening... But tomorrow it doesn't have to be and not even in a week...young people survive from day to day, what can they plan? Only going to Austria, Germany or elsewhere..." (P10sp).

## **Consequences of restitution**

After February 1948, several processes damaged property and legal relations in society. All property, including land, was nationalized and was under the administration of bodies and institutions representing the state. After 1990, the restitution process, i.e., the return of property to the original owner, began. For several MRCs, this was another reason for losing their apartment or home. In some MRCs, community members live under the constant threat of losing their homes. "Look, every house has a house number. They already had these numbers under socialism, so how is it possible that these are not our houses?

They told us 15 years ago that we should not repair them because they will be demolished, the land is not ours, the houses are not ours... If they demolish them, where will we go? Nobody is interested in that except our social ones" (P5dr). The location grew from a small part of the city where a few families lived and worked. "You see, these houses don't have numbers: they came here after they lost their housing and jobs... They wouldn't be able to afford new apartments even if they had a job, but they don't, so they're here...' (P6dr). In a similar situation are the residents of another MRC, who were informed in 2011 that their houses are not their property. "Lady, look, my father did this; I was born here in that house; my wife was born a little further away. Our parents, and after them, we, too, made sure it was possible to live in those old houses. And all of a sudden, the people from the city say that we must not repair anything because these are not our houses. The houses and the factory that used to be here belong to someone somewhere abroad. It's his property, and he doesn't want us to fix anything here. The city will remind us from time to time that it is not ours and we will have to leave... but where?" (P20dr).

## **Discussion and conclusion**

Although the results of qualitative research cannot be generalized, it is possible to conclude facts that point to essential situations requiring further scientific attention. Our findings confirm the legitimacy of the WHO (2010) recommendation that, in connection with social exclusion, attention should be paid to all aspects of this phenomenon: economic, political, social and cultural. Only a holistic approach to the researched problem will allow us to obtain enough information to set up effective solutions.

Based on the analysis of the obtained data, we identified three dominant thematic areas - the causes of the creation and expansion of MRC, which showed up after 1990, in particular prejudice and discrimination, loss of work, consequences of restitution.

We consider the dominant cause to be the collapse of the labor market, associated with a sharp increase in unemployment in a short period. The demise of enterprises and companies was often associated with the cancellation of various forms of accommodation for employees.

Another factor was the gradual return of lands to their original owners, from whom they were taken during the 1950s as part of the collectivization process. In connection with this, several houses or apartments inhabited by Roma were destroyed. The social factors supporting the process of marginalization include prejudices and the associated discrimination, which appeared in Slovak society to an unusually high degree after 1990. And paradoxically, mayors who showed understanding for Roma families without homes and did not prevent them from building shacks on the outskirts of municipalities also contributed to creating new MRCs. According to our participants-mayors, the lack of social housing or financial resources for its construction prevented them from providing the Roma who lost their housing with another, better alternative.

Persistent long-term unemployment and subsequent living on material poverty benefits prevented MRC residents from obtaining housing outside the settlement. The participants consider a permanent job as an essential prerequisite for solving their situation. Prejudices persisting in the majority, however, make it difficult for them to access more permanent employment, reinforcing the concept of Roma's bad relationship with work.

We agree with the statement of Atkinson and Hills (1998) that the solution to social exclusion must occur in parallel at the individual level, i.e., in strengthening the skills and competencies of specific individuals, and at the structural-social level, i.e., at the measures and interventions of the state. Watt (1996), because large-scale marginalized communities are not the result of short-term social processes, stated that the solution to social exclusion does not lie in countless attempts to fix society but in convincing relatively wealthy groups that social inclusion is worth paying for.

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#### Conflict of interest statement

The authors declare no conflict of interest.

## **Data availability statement**

The data supporting the findings of this study are available from the corresponding author upon request.

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# Lectures and Training in essentials of Emergency Medicine in a rural Health centre in Kenya

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Original Article

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#### Abstract:

Kenya is a developing African country offering much worse access to healthcare in comparison with European countries, mainly in rural areas where there is a greater emphasis on community health workers who provide basic health services. This paper briefly describes 6-day lectures and training in essentials of emergency medicine that were organised for a rural health centre in Kenyan West Pokot County for its personnel in October 2022. The chosen expert level was similar to that of lectures for Czech student paramedics in a university bachelors' study programme and the training was completed by a final comprehensive test with an overall score of the participants of 46 %. This may serve as a clue for similar education in other low-resource settings.

This paper is dedicated as a tribute to his magnificence, founder and rector emeritus of St. Elizabeth University of Healthcare and Social Work in Bratislava, Slovakia, prof. Vladimír Krčméry, a physician, scientist, humanist and philanthropist and a great supporter of Dr. David Roden Mission Tikit Health Centre.

## Background

Kenya (exactly Republic of Kenya) is a developing country in East Africa with its population of 56 million citizens distributed at 580 thousand square kilometres; its climate varies from tropical to arid in northern parts. Half of the Kenyans live in poverty and their life expectancy at birth was 63 years for males and 68 years for females in 2019. The neonatal mortality rate is 2.0 % as only 42 % of births are attended by a healthcare professional; the mortality rate for infants was 3.1 % and for under-five-year 4.2 % in 2020 (1). These average numbers would be even much worse in rural areas. The healthcare is provided in both state and private facilities of six levels of Kenya Essential Package for Health (KEPH) system described in Tab. 1 (2, 3), 37 %

of the facilities are private, 11 % faith-based and 52 % public. In 2015 the expenditures were covered by direct out of pocket payments (32 %), through the Government by taxes (31 %), donors (26 %) and health insurance (13 %) (4). Patients who seek medical services in Kenya are covered by the National Health Insurance Fund (NHIF) where patients pay a minimum of Kenya Shillings 500 (approx. EUR 3.36) monthly, however pregnant women do not pay this amount during pregnancy because it's paid by the Kenyan government under "Linda Mama" initiative, but this does not cater for all medical bills, for example CT scan have to be paid extra out-of-pocket or by private insurance.

The primary care is provided mainly by nurses followed by more educated clinical officers, but there are still many traditional healers consulted and trusted by lay people. Nurses, laboratory technicians and clinical officers are trained at diploma and degree level. Diploma in nursing takes three and a half years, while the degree programme takes 4 years plus 1 year of compulsory internship. There are masters and PhD programs in nursing and specialisation in

**Tab. 1** Levels of healthcare in Kenya

| level | type of facility                             | leader of providers  | features of provided care   |
|-------|--|--|---|
| 1     | community<br>health service                  | community health<br>worker<br>(community health<br>volunteer, CHV) | taking BP and blood sugar, treating<br>minor ailments (diarrhoea), malaria and HIV<br>testing, vaccination, health promotion and<br>education |
| 2     | dispensary                                   | nurse  | outpatient services (uncomplicated malaria, flu, skin conditions), counselling services   |
| 3     | health centre                                | clinical officer   | laboratory, maternity theatre, antenatal and postnatal care, minor surgical procedures, pharmacy  |
| 4     | Sub-county<br>(primary)<br>hospital          | clinical officer /<br>medical officer                              | in-patient wards, wider range of surgical<br>services, Caesarean section, ultrasound,<br>X-ray  |
| 5     | county<br>(secondary) re-<br>ferral hospital | medical officer /<br>medical practi-<br>tioner (doctor)            | more than 100 beds for inpatients, including intensive care, CT scan, orthopaedics, physiotherapy   |
| 6     | national refer-<br>ral hospital              | medical practi-<br>tioner (doctor)                                 | full services, teaching and research<br>(there are 5 such hospitals in Kenya)   |

various medical fields, e.g. ICU nurse. Clinical officers are trained at diploma and degree level. Diploma in clinical medicine and surgery takes 3 years plus one year compulsory internship. Bachelor degree in clinical medicine and community health takes 4 years plus one year of internship. There are various specialisations for clinical officers with diploma, e.g. higher national diploma in clinical medicine, paediatrics, anaesthesia, reproductive health and gynaecology, skin and lung diseases, oncology, emergency medicine and mental health. There are also various masters degrees for those who qualify with a bachelor's degree. Medical officers are trained at degree level, bachelor's in medicine and surgery takes 5 years plus one year of compulsory internship. Specialisation by doing a masters degree in various fields takes 5 years.

Anyway, almost anyone with any degree of medical education and knowledge, including first responders with just a course, are often called "daktari" (a doctor in Kiswahili) by rural lay people who are not aware about the differences between particular levels of the providers. The healthcare system faces many challenges like diseases from poverty (infectious diseases: malaria, diarrhoea, pneumonia, HIV/AIDS, malnutrition), lack of adequately educated healthcare providers and corruption. Among most frequent causes of death there is HIV/AIDS, pneumonia, diarrhoea, neonatal disorders, stroke, TB, ischemic heart disease, cirrhosis, malaria and diabetes. (5)

West Pokot County is one of 47 semi-autonomous counties of Kenya located in western part of Kenya with about 621 thousand inhabitants at 9 169 square kilometres. There are 252 community healthcare units, 95 dispensaries, 8 health centres, 4 county hospitals and no facilities of level 5 and 6. (3, 6) One of level 3 facilities (believed to be level 4) is Dr. David Mission Health Centre Tikit has run since 2019 and serves a community of about 5.000 people. Dr. David Roden was a British founder of the Tikit hospital in 2005 who did not accomplish his plan due to a tragic road accident. After some years, the catholic congregation Evangelising sisters of Mary in Nairobi took over the development of the hospital in the state of buildings without equipment. Especially Sr. Clementine Yego, Pokot's religious sister and midwife, felt that her people needed proper health care. Together with a doctor from Slovakia who was sent by St. Elizabeth University in Bratislava developed and opened a dispensary in 2019. Two years later Two-colour World organisation supported by Slovak Aid, the health facility reached level 3B equipped with diagnostic machines and minor theatre, delivery room and a newborn unit with incubator. It is staffed by five full-time employees at that time: a clinical officer, two nurses, a midwife and a laboratory technician and a Slovak medical doctor (a gynaecologist/obstetrician) that is also a manager of the health centre that is operated as a humanitarian project because only few patients can pay for provided care, only laboratory tests and medicines respectively. This project is sponsored by Slovak Agency for International Development Cooperation - SlovakAid and St. Elizabeth University of Healthcare and Social Work in Bratislava, Slovakia. To support childbirths at the healthcare facilities and testing for HIV, these are provided for free.

#### Methods

The lectures and training were carried out in October 2022 by two Czech healthcare professionals: an emergency physician working at an emergency department and emergency medical service, a university professor being a teacher and a guarantor of bachelors' study programme for paramedics, and his student paramedic being already a nurse. Their mission comprised not only the training for the personnel but bringing approx. 90 kilograms of medical equipment, devices, instruments and disposables. Therefore there was a demand to acquaint the personnel with them as well. The lectures and training consisted of 48 interactive lessons as shown in Tab. 2 supported by a projection of PowerPoint presentation and practical trainings focused mainly on ABCDE approach to emergencies, basic CPR using bag-valve-mask, recognizing basic ECG rhythms and using a manual defibrillator, application of a cervical collar and a pelvic sling, using a syringe driver etc. The skills in cardiopulmonary resuscitation were trained using adult and baby low-fidelity, low-cost manikins by Laerdal that were also brought and donated to the health centre. Nevertheless even these simple mannequins are able to provide simple feedback of sufficient compression depth using a clicking sound, sufficient tidal volume by a chest rise and appropriate compression rate using a smartphone application measuring it using a smartphone camera.

The lessons were distributed into 6 teaching days interleaved by days off, mainly during a weekend as demanded by the participants. It is important to remark that the lectures and training were conducted concurrently with the regular service of the health centre when the participants had to leave and return back occasionally to fulfil their duties. After finishing the lectures the participants were given the printed hand-outs to be able to prepare for the final exam planned 3 days later. The first part was a written test with 46 (55 %) single best answer questions with four distractors and 37 (45 %) open questions to be finished within 60 minutes. All the questions were based on the lectures only. The second part demanded each single participant to carry out a CPR on an adult manikin including bag-valve-mask ventilation for 5 minutes to prove they are able to perform this basic procedure in a good quality. Moreover all the participants demonstrated a 20-minute team CPR in a simulated scenario. Each participant was issued a certificate of attendance during a "graduation and bye-bye party" the evening before the lecturers left. The classes and final exam are shown in Fig. 1 through Fig. 7.

#### Results

Only 4 out of 5 participants of the lectures and training sat the exam, the last one did not take part without an excuse. The overall success

was 42 % on average and varied from 27 % by the laboratory technician, 31 % by the midwife and 47 % by the nurse up to 63 % achieved by the clinical officer. The average success in single best answer questions was 53 % and only 28 % in open questions. These lessons corresponded to lecturer's lessons and covered the most important topics of subject Emergency Medicine II (part 2 out of 4) in the 2<sup>nd</sup> year of the 3-year bachelors' study programme for paramedics and a result of 60 % and above would be acceptable for passing the exam. The participants scored the best in questions on general approach, IV access and airway management, acute respiratory distress, burns or intoxications or palliative care. The overall success for each topic is shown in Fig. 8. The questions that turned out to be the easiest (everyone succeeded in 6 out of 83 questions) and the most difficult (nobody succeeded in 17 out of 83 questions) are listed in Tab. 3 and Tab. 4 to give an impression of difficulty of the final test.



Fig. 1 The team having a lecture



Fig. 2 Training of CPR in adults



Fig. 3 Training of CPR in children



Fig. 5 Training of application of pelvic sling



Fig. 7 Participants performing CPR in the team



Fig. 4 Training of application of cervical collar



Fig. 6 Participants writing the final test

#### **Tab. 2** List of topics for the lectures and training

#### · Legal Background for Treating Emergencies in Kenya

#### ABCDE Approach to Emergencies

#### Triage

- Pre-hospital Triage (START)
- In-hospital Triage (Interagency Integrated Triage Tool)

#### · Cardiopulmonary Resuscitation

- Basic Life Support
- Advanced Life Support
- · Airway Management (Positioning Head, OPA, NPA, LMA, Cricothyroidotomy)
- IV/IO Access
- Intranasal Route
- · CPR in Children and Pregnant Women and Neonates

#### • Consciousness Disorders

- Assessment and Management
- · Epilepsy and Other Convulsions
- Stroke
- · Emergencies in Diabetes (Hypoglycaemia, DKA, HONK)

#### Circulatory Shock

- · Signs, Mechanisms and Classification
- · Hypovolemic and Hemorrhagic Shock
- · Anaphylactic Shock
- Septic Shock
- Neurogenic Shock

#### Acute Respiratory Distress

- · Causes and Signs, History, Examination and Management
- · Administering of Oxygen
- Most Common Causes (Acute Heart Failure, Asthma, COPD, Pneumonia, Pulmonary Embolism, Foreign Body Airway Obstruction, Pneumothorax, Anaemia, Pleural Effusion, Psychogenic Hyperventilation)

#### Acute Chest Pain

- · History and Examination
- Most Common Causes (ACS, Pericarditis, Aortic Dissection, Pulmonary Embolism, Pleuritis, Musculoskeletal, Pneumothorax, GERD, Biliary, Tracheitis, Psychogenic, Herpes Zoster)
- Ischaemic Heart Disease (Chronic and Acute Forms, AMI: STEMI/NSTEMI)

#### Arrhythmias

· Causes, Pathophysiology, Severity, Treatment

#### • Paediatric Emergencies

- Clinical Features and Vital Signs in Children
- · Croup, Epiglottitis, Bronchiolitis, Febrile Convulsions, Child Abuse and Neglect

#### · Primary Management of Trauma

- · Major Incidents and Triage
- Advanced Trauma Life Support (ATLS)
- Focused Abdominal Sonography in Trauma (FAST) Scan

#### Burns

· Classification and Treatment, Circumferential Burns

#### Poisonina

Causes and Management, Major Antidotes

#### · Principles of Palliative (End-of-Life) Care

- · Symptom Management
- · Total Pain Concept and Treatment of Chronic Pain
- · Referral and Transport to Another Hospital

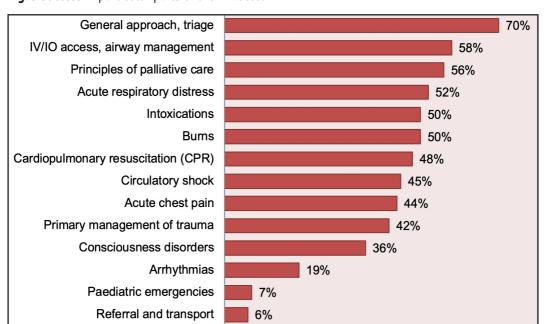


Fig. 8 Success in particular parts of the final test

**Tab. 3** The questions with 100 % right answers

| Which of these is the largest IV cannula?                     |                         |                           |                       |  |  |  |  |
|---|-------------------------|---------------------------|-----------------------|--|--|--|--|
|   |                         |                           |                       |  |  |  |  |
| a) yellow   | b) blue                 | c) pink                   | d) green              |  |  |  |  |
| As a source of energy and water without electrolytes we use:  |                         |                           |                       |  |  |  |  |
| a) 5% dextrose  | b) normal saline        | c) lactated Ringer's      | d) any of these       |  |  |  |  |
|   |                         |                           | can be used           |  |  |  |  |
|   | What cardiac rhythr     | n shall be defibrillated  | :                     |  |  |  |  |
| a) VFib and   | b) pulseless electri-   | c) all of them            | d) none               |  |  |  |  |
| pulseless VTach   | cal activity            |                           | ,                     |  |  |  |  |
| If we use a sphyg   | momanometer (BP moi     | nitor) cuff as a tourniqu | uet in major bleeding |  |  |  |  |
|   | we set the              | ne pressure:              |                       |  |  |  |  |
| a) 20 mmHg above  | b) 20 mmHg above        | c) to systolic BP         | d) to diastolic BP    |  |  |  |  |
| SPB   | DPB                     |                           | ,                     |  |  |  |  |
| C   | crackles (bubbling soun | ds) over lungs are a sig  | ın of:                |  |  |  |  |
| a) bronchial  | b) fluid in alveoli     | c) swelling of larynx     | d) pneumothorax       |  |  |  |  |
| obstruction   | •                       |                           |                       |  |  |  |  |
| What is true about chest pain in acute myocardial infarction: |                         |                           |                       |  |  |  |  |
| a) is of stabbing or  | b) is well localised    | c) is of colicky char-    | d) none of them       |  |  |  |  |
| tearing character   | ,                       | acter                     |                       |  |  |  |  |

**Tab. 4** The questions without any right answer

| <b>T</b> I I   |                               | 1.6                          |                       |  |  |  |  |  |
|--|-------------------------------|------------------------------|-----------------------|--|--|--|--|--|
| •  |                               | d for rescue breaths for:    | <u> </u>              |  |  |  |  |  |
| a) as little time as possible  | b) for 2 seconds              | c) for 10 seconds            | d) never              |  |  |  |  |  |
| First-line treatment of anaphylactic shock in an adult is0,5 mg ofadrenaline byIM route. |                               |                              |                       |  |  |  |  |  |
| If the pulse oximeter i  | s switched on but show        | ing no values we shall:      |                       |  |  |  |  |  |
| a) check the batteries   | b) administer oxygen          | c) check the probe and pulse | d) measure BP         |  |  |  |  |  |
| What should be the flo   | ow of oxygen when usin        | g a face mask?               |                       |  |  |  |  |  |
| a) no more than 5<br>Lpm   | b) at least 3 Lpm             | c) 5-10 Lpm                  | d) 10-15 Lpm          |  |  |  |  |  |
| Where do we find the ischaemic changes on ECG in STEMI/NSTEMI:                           |                               |                              |                       |  |  |  |  |  |
| a) P waves   | b) QRS complexes              | c) ST segments and T waves   | d) all of them        |  |  |  |  |  |
| If the RR-interval in no   | ormal ECG is 2 cm (= 4 b      | ig squares), the ventricu    | lar rate is75 bpm.    |  |  |  |  |  |
| An atrial fibrillation m   | ay causestroke and            | we prevent it by giving      | anticoagulants        |  |  |  |  |  |
| The maximum daily do doses.  | ose of paracetamol for c      | hildren is60 mg pe           | r kg divided into4    |  |  |  |  |  |
| Daily need of fluids for every °C of fever.  | r a 20 kg child is approx     | k1500 ml. We must            | add15 % more for      |  |  |  |  |  |
| Acute subglottic laryng treat it with:   | gitis (croup) is typical w    | ith barking cough in pre     | eschool children. We  |  |  |  |  |  |
| a) nebulized<br>adrenaline   | b) dexamethasone<br>0.6 mg/kg | c) antitussives              | d) all of them        |  |  |  |  |  |
| What are the parts of, do we report)?  | MIST message" during,         | handover when referrin       | g a patient (what all |  |  |  |  |  |
| M =mechanism, I =  | =injury/illness, S = .        | signs, T =treatmer           | nt                    |  |  |  |  |  |

#### **Discussion**

Although the questions are not and cannot be of equal difficulty there was an effort to at least use the number of questions appropriately to the extent of the topic and its importance. Of course, the reporting value is very limited due to only four participants sitting the exam. It is clear that the participants were most familiar with topics they had encountered the most, i.e. IV access, respiratory distress or burns in contrast to arrhythmias in which they were trained for the very first time. Surprisingly they scored low in paediatric emergencies or referral and transport. This knowledge will be taken into account before repeating these lectures. We can also observe

that open questions are roughly twice as difficult to be answered correctly as single best answer questions with four distractors.

From the participants' point of view the opinion was overwhelmingly positive valuing the expertise and engaging teaching style with hands-on training that have left a lasting impression on the participants making the lectures both educational and enjoyable. Nonetheless some of them suggested implementing more interactive exercises (scenarios and role plays) and incorporating dedicated time for questions during the lectures that would further improve the learning environment.

From the manager's point of view the medical staff were ready to receive the lecturer from

abroad full heartedly. Though they didn't know the seriousness of doctor Jan, he was expecting punctuality in time schedule, activity and even exam and awarding by certificate was not only for presence at training. This experience surely convinced local medics working in the facility that their job with NGO is not only about donations but also about the results and being a part of it. They realised that permanent education and self development are required for provision of quality services that are needed to raise the good name of the hospital, bring more trusting patients and this can lead to higher economic stability of the facility. I must highlight that it was my very first experience having training with a lecturer from abroad and it helped to differentiate the workers, recognise their aim to work in Tikit hospital. One of them was not allowed to extend the contract due to his poor knowledge and unpreparedness to improve.

#### Conclusion

This was probably the first experience with such a formalised training in an European format (lectures, hands-on trainings and a comprehensive written and practical final exam) for most of the personnel. Anyway they were more motivated and cooperative than Czech university students. Even this minimal sample acknowledged the best knowledge of clinical officers and nurses in comparison to midwives and laboratory technicians who had obtained less medical training.

As the personnel in Tikit has changed and the health centre is still developing towards level 4 – sub-county hospital – we are planning to repeat this mission in autumn 2023, extended according to actual needs, e.g. by basic anaesthetic techniques. In the meantime we would like to run a new website of the health centre that would enable e-learning activities and remote lectures using video calls (webinars). We are planning to repeat not only the post-testing but also pre-testing of the participants' knowledge as well and to respond to the valuable feedback from the participants.

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# Prevalence of Diastasis m. Rectus Abdominis and Pelvic Floor Muscle Dysfunction in Postpartum Women

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Original Article

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#### Abstract:

**Objective:** The aim of this study was to determine the prevalence of Diastasis of the rectus abdominis muscles (DRAM) and pelvic floor muscle dysfunction (PFMD) in postpartum women.

**Design:** The observational prospective study.

Participants: 150 of 180 women (83.3%) from 6 weeks to 6

months postpartum, with a mean age of 33.1 years.

**Methods:** For diastasis examination, inter recti distance (IRD) was measured by a linear 2D ultrasound probe, 4.5 cm above the navel, in its area and 4.5 cm below the navel when lying on the back at rest and under a load test. The degree of DRAM was classified into four grades. Urinary leakage symptoms were assessed by the International Incontinence Consultation Questionnaire (ICIQ - UI SF).

Results: The first degree of diastasis during the load test was 38.1% above the navel, 36.4% in the navel area, and 23.7% below the navel. The second degree of diastasis with load was 28.8% above the navel, 21.2% in the navel area, and 10.2% below the navel. PFMD showed 31.3% of women with mild symptoms of SUI, 32.2% of women with grade 1 cystocele. Discussion: The average IRD distance at rest and during the load test confirmed the first grade of DRAM out of four degrees of severity. Moderate and medium DRAM occurred according to location in an average of one-third of the cases. The highest percentage of DRAM was above the navel, and the lowest percentage below the navel. PFMD was detected in an average of one-third of cases.

#### Introduction

Diastasis of the rectus abdominis muscles (DRAM) is defined as the increased separation of the medial edges of the two rectus muscles due to the stretching and laxity of the linea alba. It can be located along the entire length of the linea alba. <sup>1</sup> Diastasis often occurs during pregnancy and after childbirth. As the foetus grows, the mother's straight abdominal muscle stretches along the abdominal wall. The linea alba softens, which allows the abdomen m. rectus abdominis to move away from the midline. <sup>2</sup> At 12 months postpartum, 33% of women have recti abdominis diastasis greater than the width of two fingers. DRAM can be examined with a 2D ultrasound, calliper or centimetre scale. <sup>3</sup>

DRAM is an aesthetic but functional problem. It contributes to pain in the lower back and affects the stability of the torso. <sup>4</sup> The deep core stability exercise programme is effective in treating diastasis recti. <sup>5-7</sup> The 3 most frequently used interventions are strengthening exercises in the m. transversus abdominis (TrA), pelvic floor muscle training (PFMT), and the "Noble technique," which involves manipulation of the rectus muscle bellies, while the patient performs a partial sit-up. <sup>8</sup> Walton <sup>9</sup> used the supine strengthening programme and dynamic core stabilisation programme, including the addition of plank exercise to approximate the DRAM. Both programmes showed a significant reduction in DRAM.

Pregnancy and childbirth cause an excessive load on the muscles of the pelvis, pelvic floor and abdominal muscles. During vaginal delivery, the pelvic floor muscles stretch up to 3 times. Regeneration of muscles and nerves and connective tissue takes approximately 6 months.

During birth, injuries to the perineum may occur, which can lead to stress urinary incontinence, overactive bladder with urgency urinary incontinence, anorectal dysfunction, or even postpartum prolapses often occur pelvic organ prolapse and reduced quality of life. 10-13

At present, there are not enough studies to evaluate the prevalence of diastasis based on objective measurement by ultrasound (USG) and pelvic floor muscle dysfunction in postpartum women. 14-15

#### **Methods**

#### Study design

The observational prospective study was carried out in the period from April 8, 2021, to April 29, 2022. All included probands signed an informed consent form. The research was approved by the local ethics committee (4168/2021/ODDZ-11065). The aim of this study was to investigate the prevalence of DRAM and pelvic floor muscle dysfunction (PFMD) in postpartum women.

#### **Study Setting and Participants**

Six weeks after childbirth, the patients were contacted by phone and invited for gynaecological and DRAM examinations in the gynaecological outpatient clinic. A complete postpartum history and information on pelvic floor muscle dysfunction were recorded. Diastasis was examined at rest and under a load test using a 2D USG.

#### Sample size calculation

We used an estimate based on a sample selection of proband numbers based on a test power of 0.80 and an alpha of 0.05 (type I error).

There were 180 births in the observed period, and the expected prevalence of diastasis was 30%; therefore, we needed at least 116 women to participate in the study.

All 180 women were contacted. Thirty women refused to participate in the study, so 150 women were enrolled. The final group consisted of 118 women. Thirty-two women were eliminated, so the loss was 21.3%. Two were excluded for obesity, 5 were not examined because of menstruation, 10 were excluded for ongoing postpartum physiotherapy, and 15 women did not show up for examination. (Figure 1) Figure 1 Study Development Chart.

#### Inclusion criteria

Women from six weeks to up to 6 months after birth and over 18 years old were included.

#### **Exclusion criteria**

The following comprise the exclusion criteria: psychiatric illness, postpartum depression, non-cooperation, neurological disease conditions after a stroke, a history of brain injury, significant visual and hearing damage confirmed by neurological examination, serious internal, orthopaedic or oncological diseases, and disagreement with inclusion in the study.

#### **Data Collection**

## Outcome measures Objective examination of DRAM

For DRAM examination, inter-rectus distance (IRD) was measured by a linear probe 2D USG. Localisation was measured as follows: 4.5 cm above the navel, in the navel area and 4.5 cm below the navel. Diastasis was evaluated at rest and during the load test by lifting the lower limbs. We evaluated the severity of DRAM as follows: 1st degree = moderate, IRD width (2.1–3 cm), 2nd degree = medium, IRD width (3.1–5 cm, 3rd degree = severe, IRD width (5–7 cm), and 4th degree = very severe (7–9 cm). <sup>16-18</sup> The device used for the examination was a GE Voluson S6.

# Examination of urogenital prolapse and avulsion injury

During the Valsalva manoeuvre, we evaluated the presence of pelvic floor defects (descensus/prolapse of pelvic organs, cystocele, recto-

cele/enterocele) and their degree. We diagnosed the avulsion injury using 3D/4D USG TUI software with GE Voluson S6.

The staging for pelvic organ prolapse (POPQ) was as follows: Stage 0—No prolapse; Stage I—Most distal portion of the prolapse is more than 1 cm above the level of the hymen; Stage II—The most distal portion of the prolapse is between 1 cm above the hymen and 1 cm below the hymen. Stage III: The most distal portion of the prolapse is more than 1 cm beyond the plane of the hymen but everted at least 2 cm less than the total vaginal length; and Stage IV—Complete eversion or eversion at least within 2 cm of the total length of the lower genital tract.<sup>19</sup>

According to severity, we distinguished 3 degrees of cystocele. Grade 1 (mild) is defined as a slight descent of the bladder into the vagina, during which the patient usually does not experience any difficulties. Cystocele of the second degree (the bladder reaches the introit of the vagina) and of the third degree, in which the bladder exits the vagina. <sup>19</sup>

A rectocele is defined as a herniation of the rectum through the rectovaginal septum into the vaginal lumen. According to the severity of the anatomical changes, three degrees of rectocele were distinguished: I—a protrusion is defined as a small formation in the rectal wall and is detected only during a digital examination; II—the rectocele reaches the threshold of the vagina; and III—the rectocele extends outside the vagina. <sup>19</sup>

We can identify a levator avulsion injury using USG TUI imaging in the axial plane as an evident discontinuity between the pubovisceral muscle and the pelvic wall and quantify the cranioventral and ventrodorsal extent of the damage. <sup>19</sup>

#### **Urine incontinence symptoms**

The International Consultation on Incontinence Questionnaire (ICIQ-UI SF) was used. It monitors the frequency and amount of urine leaked in the first two questions. The third question looks at how much urine leakage affects patients' daily lives. The ICIQ – UI SF score is the sum of the questions (0—no leakage, 21—very severe urine leakage). <sup>20</sup>

#### **Data Analysis**

Descriptive and inferential statistics were used for the data analysis. The degrees of di-

astasis were evaluated as percentages. Data are presented as mean and standard deviation (SD). The data had a normal distribution; p-values were obtained using a t-test. A significant value was considered p < 0.05. The calculations were performed using IBM SPSS Statistics for Macintosh version 28.0 Armonk, NY: IBM Corp.

#### Results

#### Table 1 Demography

The average age of the women was 33.1 years. BMI confirmed normal weight. The average child's weight was 3617.2 g. The mean ICIQ - UI SF core was 2.6, indicating mild UI symptoms. (Table1)

#### Table 2 Number and type of births

The types and numbers of births are described in Table 2. The highest percentage of patients had 1 birth, while the lowest had 5 births. The highest percentage of patients had 1 spontaneous birth, and the lowest had 5 spontaneous births.

One elective caesarean section had the highest percentage of patients (26.3%), and 3 elective caesarean sections had the smallest percentage (1.7%). Of the patients, 21.2% had 1 acute caesarean section, and 1.7% had 2 elective caesarean sections. Twins and Triplets: 1.7% women 3.4% women had twins, and 0.8% women had triplets. (Table 2)

### Table 3 Problematic situations during childbirth and PFMD

Vacuum extraction was performed on 0.8% of the women, and forceps were used on 8.5% of women with epidural analgesia. Of the women, 19.5% had Kristeller's expression, 24.6% had episiotomy and 7.6% had perineal injuries.

The following pelvic floor muscle dysfunctions were detected in our group: 31.3% of the women had mild UI symptoms and 16.1% had dyspareunia. Of the women, 32.2% had grade 1 cystocele, 22.0% had grade 1 rectocele and 8.5% had mild avulsion. (Table 3)

#### Table 4 DRAM at rest

At rest, the average IRD distance confirmed grade 1 DRAM.

The highest percentage of DRAM (70.3%) was above the navel, 44.9% in its area and

16.9% below the navel. The 1st and 2nd degrees occurred most above the navel and least below the navel. Grade 3 occurred most frequently in the navel area. (Table 4)

# Table 5 DRAM during load test (lifting the lower limbs).

During the load test, the average IRD distance confirmed grade 1 DRAM.

The highest percentage of DRAM (68.6%) was above the navel, 60.1% in its area and 33.9% below the navel. The 1st and 2nd degrees occurred most above the navel and least below the navel. Grade 3 occurred most frequently in the navel area. (Table 5)

#### **Discussion**

The aim of the study was to determine the prevalence of DRAM and PFMD in postpartum women.

We determined the prevalence of diastasis according to severity (1st-4th degree) and location (above the navel, in the navel area and below the navel). The latest classifications for diastasis assessment were used (12-14). We also noticed a minimal increase in the IRD distance. The average IRD at rest and during the load test distance confirmed grade 1 DRAM. The average IRD at rest was 2.69 cm above the navel, 2.21 cm in the navel area and 1.28 cm below the navel, showing an average of the first degree of diastasis severity. A slight increase in diastasis was observed during the load test. The highest percentage of DRAM was above the navel, a lower percentage in its area, and the lowest percentage was below the navel. Grade 1 and 2 DRAM occurred most above the navel and least below the navel. Grade 3 DRAM occurred most frequently in the navel area. PFMD was detected in an average of one-third of cases. The following pelvic floor muscle dysfunctions were detected in our group: 31.3% of women had mild symptoms of UI; 16.1% had dyspareunia; 32.2% had grade 1 cystocele; 22.0% had grade 1 rectocele; and 8.5% had mild avulsion.

Bo et al. <sup>21</sup> evaluated the function, PFMD and DRAM in a prospective cohort study of 300 pregnant nulliparas. The evaluation methods included pelvic floor muscle strength and endurance, assessed by a perineometer. Prolapse was assessed using palpation and the POP-Q questionnaire.

The ICIQ UI SF was used to assess the symptoms of incontinence. A group of women with and without DRAM was compared at 21 weeks of gestation and 6 weeks postpartum, followed by 6 and 12 months postpartum. Women with DRA did not have weaker pelvic floor muscles or more SUI or POP compared to women without diastasis. In our group, only minimal UI symptoms and urogenital prolapses were detected.

He 22 examined abdominal wall muscle elastography, including straight abdominal muscle (RA), external oblique muscle (EO), internal oblique muscle, and transverse abdominis muscle (TrA), in 36 patients with DRAM postpartum and 24 healthy nulliparas. He measured IRD distance via USG, muscle thickness and shear wave speed (SWS) from 10 locations. The maximum diameter of m. recti abdominis detachment was located in the navel  $(4.59 \pm 1.14 \text{ cm})$  in patients with DRA. The SWS value was significantly lower in the RA group and higher in the TrA muscle in patients with DRA compared to the control group. However, SWS in both muscles (RA and TrA) showed a significant correlation with IRD. The application of SWE to the abdominal wall muscles in patients with DRA is possible. We evaluated diastasis only by USG above the navel, in its area and below the navel. However, it would be appropriate to supplement the above measurements.

### Strengths and limitations, recommendations for further research

The strengths of the study are the objective measurement of DRAM using 2D ultrasound and the use of standardised measuring tools, including ICIQ-UI SF. A limitation of this study was the small sample size, as it was not a multicentre study. For further research, we recomend the use of abdominal wall muscle elastography for DRAM assessment. For clinical practice, this study implie that healthcare professionals should inform the patients with DRAM to complete an exercise program for DRAM reduction in collaboration with a physiotherapist.

#### Conclusion

The average IRD at rest and during the load test confirmed grade 1 DRAM out of 4 degrees of severity. Moderate and medium DRAM occurred according to location in an average of

one-third of cases. The highest percentage of DRAM was above the navel, with a lower percentage in its area and the lowest percentage below the navel. PFMD was detected in an average of one-third of cases. We found minimal symptoms of UI, as well as 1 asymptomatic stage of cystocele, rectocele and mild avulsion.

#### **Declaration of interest**

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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Figure 1 Enrolment flow diagram

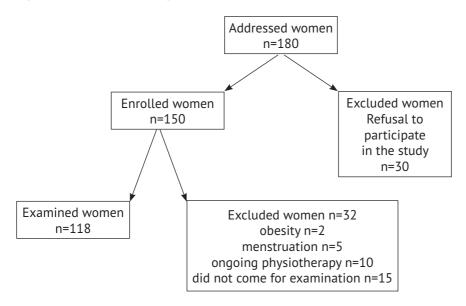


Table 1 Demography

| N=118            | Mean   | SD    |  |
|------------------|--------|-------|--|
| Age              | 33.1   | 1.5   |  |
| Weight           | 67.3   | 14.4  |  |
| Height           | 1.6    | 0.0   |  |
| BMI              | 23.9   | 4.5   |  |
| Child's weight   | 3617.2 | 580.3 |  |
| ICIQ UI SF       | 2.6    | 4.4   |  |
| OAB Life quality | 95.5   | 9.3   |  |

**Table 3** Problematic situations during childbirth and PFMD

| %                       | No   | Yes  |
|-------------------------|------|------|
| Vaccum extractor        | 99.2 | 0.8  |
| forceps                 | 98.3 | 1.7  |
| epidural analgesia      | 91.5 | 8.5  |
| Kristeller's expression | 80.5 | 19.5 |
| episiotomy              | 75.4 | 24.6 |
| perineal injuries       | 92.4 | 7.6  |
| SUI symptoms            | 68.7 | 31.3 |
| Dyspareunia             | 83.9 | 16.1 |
| cystocele               | 67.8 | 32.2 |
| Retrocele/enterocele    | 77.1 | 22.0 |
| Avulzion                | 91.5 | 8.5  |

Table 2 Number and type of births

| %                         | 0    | 1    | 2    | 3    | 4   | 5   |
|---------------------------|------|------|------|------|-----|-----|
| Number of births          | 0    | 40.7 | 34.7 | 16.1 | 5.9 | 2.5 |
| Spontaneous childbirth    | 30.5 | 33.9 | 22.0 | 9.3  | 2.5 | 1.7 |
| Cesarean section elective | 66.1 | 26.3 | 5.9  | 1.7  |     |     |
| Caesarean section acute   | 77.1 | 21.2 | 1.7  |      |     |     |
| Twins                     | 96.6 | 3.4  |      |      |     |     |
| Triplets                  | 99.2 | 0.8  |      |      |     |     |

**Table 4** DRAM at rest

| DRAM                      | IRD 4.5 cm above the navel |       | IRD in the navel area |       | IRD 4.5 cm<br>below the navel |       |  |
|---------------------------|----------------------------|-------|-----------------------|-------|-------------------------------|-------|--|
| Mean                      | 2.6                        |       | 2.2                   |       | 1.2                           |       |  |
| SD                        | 1                          | .0    | 1.2                   |       | 0.7                           |       |  |
| Percentile 25             | 1                          | .9    | 1.3                   |       | 0.7                           |       |  |
| Percentile 50             | 2                          | .6    | 1                     | 1.9   |                               | 1.0   |  |
| Percentile 75             | 3.3                        |       | 3.0                   |       | 1.2                           |       |  |
| Occurrence in numbers / % |                            |       |                       |       |                               |       |  |
| Without DRAM              | 35                         | 29.7% | 65                    | 55.1% | 98                            | 83.1% |  |
| With DRAM                 | 83                         | 70.3% | 53                    | 44.9% | 20                            | 16.9% |  |
| Severity of DRAM          |                            |       |                       |       |                               |       |  |
| 0                         | 35                         | 29.7% | 65                    | 55.1% | 98                            | 83.1% |  |
| 1. degree (2,1-3cm)       | 42                         | 35.6% | 26                    | 22.0% | 17                            | 14.4% |  |
| 2. degree (3,1-5cm)       | 39                         | 33.1% | 23                    | 19.5% | 2                             | 1.7%  |  |
| 3. degree (5-7 cm)        | 2                          | 1.7%  | 4                     | 3.4%  | 1                             | 0.8%  |  |

**Table 5** DRAM during load test (lifting the lower limbs)

| DRAM                      | IRD 4.5 cm above the navel |       | IRD in the navel area |       | IRD 4.5 cm<br>below the navel |       |  |  |
|---------------------------|----------------------------|-------|-----------------------|-------|-------------------------------|-------|--|--|
| Mean                      |                            | .6    | 2.6                   |       | 1.7                           |       |  |  |
| SD                        | 0                          | .9    | 2.5                   |       | 0.9                           |       |  |  |
| Percentile 25             | 1                          | .9    | 1.6                   |       | 0.9                           |       |  |  |
| Percentile 50             | 2                          | .5    | 2.3                   |       | 1.5                           |       |  |  |
| Percentile 75             | 3.2                        |       | 3.0                   |       | 2.5                           |       |  |  |
| Occurrence in numbers / % |                            |       |                       |       |                               |       |  |  |
| Without DRAM              | 37                         | 31.4% | 47                    | 39.8% | 78                            | 66.1% |  |  |
| With DRAM                 | 81                         | 68.6% | 71                    | 60.1% | 40                            | 33.9% |  |  |
| Severity of DRAM          |                            |       |                       |       |                               |       |  |  |
| 0                         | 37                         | 31.4% | 47                    | 39.8% | 78                            | 66.1% |  |  |
| 1. degree (2,1-3cm)       | 45                         | 38.1% | 43                    | 36.4% | 28                            | 23.7% |  |  |
| 2. degree (3,1-5cm)       | 34                         | 28.8% | 25                    | 21.2% | 12                            | 10.2% |  |  |
| 3. degree (5-7 cm)        | 2                          | 1.7%  | 3                     | 2.5%  |                               |       |  |  |

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