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# How Do Changes in the Family Structure and Dynamics Reflect on Health: The Socio-Ecological Model of Health in the Family

## Kako se promjene u sastavu i dinamici obitelji odražavaju na zdravlje: socioekološki konceptualni model zdravlja u obitelji

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**Abstract.** Family is one of the most important socio-demographic factors when it comes to understanding health differences between individuals. Despite significant changes in family structure in recent decades, the influence of family as a social determinant of health on health outcomes remains strong and consistent. Family relationships' role in shaping individuals' health and vice versa highlights the multidimensional nature of health, which encompasses both objective and subjective elements. Throughout life, from early childhood to old age, the family, with its structure and dynamics, significantly reflects on the individual's physical, mental, and social well-being. In this sense, the aim of this paper is to explore how the family, with its structure and dynamics, reflects on individuals' health and health behaviour from early childhood through adulthood and into old age in the context of significant life events or transitions such as marriage, divorce, widowhood, and parenthood, by visualizing a conceptual model of the health of an individual in the family.

**Keywords:** Divorce; Family; Health; Marriage; Social Determinants of Health; Widowhood

**Sažetak.** Obitelj je jedan od najvažnijih sociodemografskih čimbenika kada je riječ o razumijevanju zdravstvenih razlika među pojedincima. Unatoč značajnim promjenama u oblicima obitelji tijekom proteklih desetljeća, utjecaj obitelji kao društvene odrednice zdravlja snažan je i trajan. Uloge obiteljskih odnosa u oblikovanju zdravlja pojedinaca, ali i obrnuto, predstavljaju zdravlje kao višeznačan ishod s nepristranim i pristranim čimbenicima. Tijekom života, od ranog djetinjstva do duboke starosti, obitelj se svojim sastavom i dinamikom značajno odražava na tjelesno, psihičko i socijalno blagostanje pojedinca. U tom smislu, cilj ovog rada je istražiti kako obitelj svojim sastavom i dinamikom utječe na zdravlje i zdravstveno ponašanje pojedinca od ranog djetinjstva, preko odrasle dobi, pa sve do starije dobi u okviru značajnih životnih događaja ili prijelaza poput braka, razvoda, udovištva i roditeljstva predočavanjem konceptualnog modela zdravlja pojedinca u obitelji.

**Ključne riječi:** društvene odrednice zdravlja; obitelj; razvod; supružništvo; udovištvo; zdravlje

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## INTRODUCTION

Family is one of the most important socio-demographic factors when it comes to understanding health differences between individuals<sup>1</sup>. Despite significant changes in family structure in recent decades, the influence of family as a social determinant of health on health outcomes remains strong and consistent<sup>2</sup>. Throughout Europe, people still live in traditional family forms such as the nuclear family associated with marriage, and their family life is closely linked to the civil status of their partnership<sup>1</sup>. On the other hand, non-traditional or new family structures are emerging among young people, but their influence and acceptance vary greatly from society to society<sup>3</sup>. At younger ages, the distribution of paid and unpaid work within a household is mainly based on sex, and for families with children, the focus is on childcare. On the contrary, at retirement age, when paid work has ceased, and pension systems provide income, the distribution of unpaid work within the household is less demanding, while caring for the spouse is the real focus of the sex difference in the matter of these family obligations<sup>4</sup>. Bearing this in mind, the expansion of family forms has led to a more complex history that goes beyond the mere comparison of married and unmarried persons. At the same time, the usual sex roles that men and women once played within the family also changed. The expansion of the family structure and sex equality have not taken place with the same intensity and at the same time in all countries around the world. This process of expanding the family structure and sex equality has not taken place with the same intensity and at the same time in all countries around the globe<sup>5</sup>.

Family relationships' role in shaping individuals' health and vice versa highlights the multidimensional nature of health, which encompasses both objective and subjective elements<sup>6</sup>. Throughout life, from early childhood to old age, the family, with its structure and dynamics, significantly reflects on the individual's physical, mental, and social well-being<sup>7</sup>. In this sense, the aim of this paper is to explore how the family, with its structure and dynamics, reflects on individuals' health and health behaviour from early childhood

through adulthood and into old age in the context of significant life events or transitions such as marriage, divorce, widowhood, and parenthood, by visualising a conceptual model of the health of an individual in the family.

Studies have found a strong correlation between changes in family structure and various health outcomes. These changes mainly include the increase in single-parent households, cohabitation, same-sex couples and the delay of marriage and childbearing, which has led to new family structures associated with positive and negative effects on health.

## THE FAMILY AND ITS CONCEPT AND STRUCTURE

As the oldest and most fundamental social institution or social group in the world, the family is multifaceted and can be defined differently depending on cultural, sociological, legal, economic, biological and personal perspectives<sup>8</sup>. There is no universal definition of family, as it can vary from culture to culture, within a culture, and from person to person<sup>9</sup>. According to the Universal Declaration of Human Rights, the family is considered a natural and fundamental unit of society and is entitled to protection by society and the government<sup>10</sup>. The European Union (EU) and its law do not define the family because the EU does not have the competence to shape the concept of family. Accordingly, the concept of family is primarily subject to the laws of individual EU Member States, as family law falls within their national jurisdiction. However, EU law recognises certain rights and principles that apply to family relationships in the context of free movement and non-discrimination<sup>11</sup>. The Croatian Constitution and Family Act still do not define the family, but the country's legislation recognises it as a voluntary union between a man and a woman through marriage or between same-sex partners through a registered life partnership. In line with that, Croatian law recognises four types of family structures consisting of two adults living together. These are marriages between persons of different sexes, registered partnerships between

persons of the same sex, de facto cohabitation between persons of the opposite sex and de facto cohabitation between persons of the same sex. Croatian legislation protects many aspects of the family through the Constitution of the Republic of Croatia and laws such as the Family Act, the Inheritance Act and the Labour Act<sup>12</sup>. The new Family Act, which will come into force on 1<sup>st</sup> January 2024, aimed to define the family, it was ultimately decided to delete the definition as it was discriminatory and could only satisfy some involved parties. This is not surprising, however, given the complexity and multidimensionality of the family and the fact that the family changes over time, so defining the family is complex and time-consuming<sup>13</sup>. Historically, the family has existed in two main forms, the extended and the nuclear family, known today as the traditional family. The extended or consanguine family (consanguine refers to individuals who share the same blood relations) includes the husband, wife and their children and selected blood relatives (with their spouses and children) living together and is considered a single-family unit. This is the typical family structure for traditional agricultural societies, as working together is beneficial to ensure a better life<sup>8</sup>. The nuclear or conjugal family (conjugal refers to being joined or united in the context of marriage) consists of the central (nuclear) figures of the father, mother and their children. For the children, their family is blood-related, as they are related to their parents by blood, and it is also their orientation family, as this is where they receive their socialisation and are oriented towards life in society. For the parents, it is a family of procreation because their relationship is based on having children. This family structure is typical of urban industrial societies with great geographical and social mobility<sup>14</sup>. Social change is leading to a shift in the traditional view of the family as a natural and fundamental social unit. As a result, various contemporary family structures are now recognised, characterised by different forms of cohabitation. These forms usually include:

- Multigenerational family: This family structure involves multiple generations, including grandparents, parents and grandchildren living

under the same roof. It is often seen as a form of extended or consanguineous family, and this arrangement promotes intergenerational support and resource sharing<sup>15</sup>.

- Single-parent family: A single parent raises one or more children in this family structure. This can happen due to various situations, such as divorce, separation, death of a spouse or the decision to have offspring alone<sup>8</sup>.
- Blended family: It is formed when two people come together in a new relationship, each with their children from previous marriages or relationships. This family structure also includes the integration of step-parents and step-siblings into a cohesive new family unit<sup>16</sup>.
- Same-sex parent family: This family structure includes a same-sex couple raising children through adoption, surrogacy or assisted reproductive technologies<sup>17</sup>.
- Communal or cooperative family: This family structure entails cohabitating numerous individuals or families sharing resources, responsibilities, and child-rearing obligations. Such families frequently exhibit similar values, aspirations, or religious convictions that serve to strengthen their communal bond<sup>14</sup>.
- Grandparent-headed family: Grandparents are the primary caregivers and leaders of this family structure because parents are incapacitated, disinterested or deceased and, therefore, cannot care for their children<sup>18</sup>.
- Foster family: Children who cannot live with their biological parents for various reasons such as abuse, neglect or parental illness are temporarily taken in by foster families. In this family structure, foster parents provide a caring environment for the children until they can be reunited with their biological family or find a permanent home through adoption<sup>19</sup>.
- Adoptive family: When a family legally adopts a child, it assumes the same duties and privileges as the biological parents and forms the family structure as an adoptive family<sup>20</sup>.
- Childless family: Some couples or individuals choose not to have children or cannot do so because of certain circumstances. These people establish the family structure of childless families and give priority to their relationships and other aspects of their lives<sup>21</sup>.

The family takes many forms in today's modern world, reflecting the diversity and change in human relationships. Over the years, the meaning of the term family has evolved and expanded to include a wider range of relationships and structures. Today, the concept of family has become more inclusive, recognising the different relationships and ways in which people freely form and define their families. It is, therefore, very important to recognise that family structures can differ significantly from culture to culture and that social norms and definitions of family are constantly evolving<sup>16</sup>.

#### THE REFLECTS OF CHANGES IN THE FAMILY STRUCTURE ON HEALTH

The concept of health and, at the same time, of disease as the opposite state has changed significantly throughout history<sup>22</sup>. Once considered a civil right, health is now recognised worldwide as a fundamental human right. However, the pursuit of optimal health remains a constant goal for humanity, which is attempted by identifying the various factors that lead to health<sup>23</sup>. The meaning of health continues to grow and adapt to humanity's changing needs and demands. This constant evolution is reflected in the ever-changing definition of health and the continuous efforts to improve and maintain it<sup>22</sup>. One of the most widely accepted definitions of health today is that of the World Health Organisation in 1948, which defines health as "a state of complete physical, mental and social well-being and not just the absence of disease or infirmity"<sup>24</sup>. At the time of its design, this definition was a groundbreaking creation that expanded the concept of health and, for this very reason, has made significant progress to this day. Its revolutionary nature can be attributed to the fact that it went beyond the traditional concept of health, which focused primarily on physical disease and took a broader view that considered social determinants and their reflection on a person's health, as well as the quality of life<sup>25</sup>. It also emphasised the need to achieve well-being that went above the mere absence of disease to include psychosocial, behavioural and environmental factors. This undoubtedly contributed to the enormous influence

of this definition on society, as it called for political, academic, community and professional organisations to invest resources in achieving the ambitious goal of universal well-being<sup>26</sup>. In recent times, mainly due to scientific and technological progress, humanity has become increasingly aware that its environment's physical and biological nature is not constant. As a result, it is now recognised that people's actions and lifestyles have a significant reflection not only on their health but also on future generations and the health of the planet as a whole<sup>22</sup>. This makes the definition of health even broader and makes it evident that health is a multidimensional outcome with objective and subjective factors that shape the family and whose interaction is complex and mutual, reflecting the individual's health<sup>6</sup>. There is no doubt that the family framework is not only a fundamental part of most people's social network structure but also accompanies individuals throughout their lives, forming their health. Understanding the role of the family in forming the individual's health is an important task that has recently received considerable attention<sup>27</sup>.

It is now well-established that family structure changes can significantly reflect on the physical and mental well-being of individuals<sup>28</sup>. Studies have found a strong correlation between changes in family structure and various health outcomes. These changes mainly include the increase in single-parent households, cohabitation, same-sex couples and the delay of marriage and childbearing, which has led to new family structures associated with positive and negative effects on health<sup>29</sup>. One of the primary ways in which changes in family structure reflect on health is through the social support that families provide. Social support is essential for maintaining physical and mental health, and changes in family structure can lead to a decline in social support<sup>30</sup>. Xi et al. demonstrated that living in a multigenerational family structure can positively impact the burden of multimorbidity and healthspan<sup>31</sup>. This is not surprising, as such a family structure can provide emotional, social and economic support, knowledge sharing, more role models and care coordination<sup>14</sup>. On the other hand, some study

shows that the single-parent family structure can have undesirable health effects. Accordingly, Duriancik and Goff found that children from single-parent families may have fewer emotional and financial resources, which can increase their risk for health problems such as obesity, depression and chronic diseases<sup>32</sup>. It has also been shown that the blended family structure can negatively reflect on health, especially for children for whom this transition can mean additional stress due to their parents' previous separation or divorce<sup>33</sup>. Some studies have noted that non-traditional family structures can positively affect health. Zhang et al. provide that same-sex couples have better mental health and relationship satisfaction than heterosexual couples and that their children also perform significantly better outcomes than children of heterosexual parents in some psychological adjustment domains<sup>34</sup>. It has been observed that families with communal or cooperative structures positively affect both social integration and the general well-being of their members, especially older adults. These family structures can contribute to better mental and physical health and are associated with higher perceived well-being<sup>35</sup>. Carrere et al. revealed that a communal or cooperative family structure could enhance health and well-being mediated by psychosocial determinants of health<sup>36</sup>. In contrast, the grandparent-headed family structure appears to lead to greater physical health declines and higher rates of depression among grandparents caring for grandchildren than their peers who are not primary caregivers of grandchildren<sup>37</sup>. Although studies suggest that caring for grandchildren in a grandparent-headed family structure can negatively affect grandparents' health, Rapoport et al. observed that grandparents who care for their children seem to cope with parenting just as well as parents<sup>18</sup>. Studies on health in foster and adoptive families have produced different and sometimes contradictory results, as multiple factors play a role<sup>38</sup>. The findings of Quashie et al. indicate that there is no connection between not having children and health outcomes. Instead, they point out that the absence of children may be associated with better health in some situations and countries<sup>21</sup>.

Family structures can be characterised by various forms of cohabitation, regardless of marriage, which can positively or negatively affect an individual's health, where the influence of society and the environment in which one lives should be considered<sup>8</sup>. It has been demonstrated that balanced family structures can significantly positively reflect on an individual's health, particularly their mental health<sup>39</sup>, which ultimately contributes to a longer healthspan<sup>40</sup>.

#### THE REFLECTS OF CHANGES IN FAMILY DYNAMICS ON HEALTH

Family dynamics, often referred to as family relationships, refers to the interactions, roles and relationships between family members with numerous factors<sup>41</sup>. This wide range of factors primarily includes emotional, physical and financial support and social connectedness that can enhance or strain family relationships between family members. Since family members mostly rely on some forms of family help, they can be a major source of relationship stability or tension that ultimately affects health<sup>14</sup>. The influence of changes in family dynamics on individual health has been associated with various health outcomes and one of the most common pathways through which these changes reflect individual health is family social support<sup>30</sup>. There is ample evidence that a stable family support system and harmonious family dynamics can strongly influence a person's health and well-being. In particular, individuals who benefit from such a supportive and positive environment tend to experience an improvement in their health, especially mental well-being<sup>42</sup>. The observations made by Yang et al. provide that mental health is positively influenced by family support and coping strategies. Moreover, family support is also associated with positive coping strategies, and coping strategies were found to mediate the positive relationship between family support and mental health<sup>43</sup>. In general, family dynamics can shape an individual's health behaviour through tradition, role models, communication, stress and social support, as the family plays a very important role in promoting health<sup>44</sup>. This is consistent with the findings of Scaglioni et al., who observed that parental eat-

ing habits and feeding strategies are the most dominant determinants of a child's eating behaviour<sup>45</sup>. Generally, when considering family dynamics and the health of individuals, positive family dynamics can promote health, while negative or dysfunctional dynamics can have adverse effects<sup>28</sup>. This fits with the findings of the study by Ramos et al., who showed that families in which members get along well and support each other during childhood and adolescence form the basis for positive family relationships in adulthood, which are associated with greater health and happiness<sup>46</sup>. In contrast, negative family dynamics such as conflict, abuse and neglect can negatively affect health. This is consistent with Springer et al. study findings, which highlighted that children who grow up in a conflictual or abusive home have a higher risk of developing mental health problems and substance abuse later in life, ultimately leading to a significant decline in overall health<sup>47</sup>.

The association between family dynamics and the individual's health is complex and multi-layered, with numerous elements, such as society and the environment influencing each other<sup>48</sup>. At the same time, the nature of family dynamics can vary significantly from person to person and from culture to culture, ultimately leading to different outcomes for the individual's health<sup>49</sup>.

#### MARRIAGE, WIDOWHOOD AND THE HEALTH OF ADULTS

Marriage has long been reported to have a protective effect on health<sup>50</sup>, and studies show that such a protective effect results mainly from the economic benefits and social support associated with marriage. Men, in particular, have been noticed to benefit from the health advantages of marriage because they are generally more likely to engage in healthier and less health-damaging behaviours after marriage. Rendall et al. found that married men drink less alcohol, drive more carefully and eat more regularly<sup>51</sup>. However, these conclusions should be taken with caution because, first, married people may overestimate their health status, and the protective effect of marriage may be reduced for the most severe health conditions<sup>52</sup>. Secondly, and perhaps more

notably, the effects of choice play an important role, as better health can significantly affect the chances of entering and staying in a marriage. Healthier individuals are more likely to have characteristics such as better economic status or greater physical attractiveness that make them more desirable and stable spouses than people with poorer health<sup>53</sup>. Nevertheless, even when selection is considered, marriage's salutary effects on various physical and mental health outcomes have been repeatedly demonstrated<sup>54</sup>. More recently, knowledge of the consequences of changes in marital status and consideration of marital trajectories has become increasingly important<sup>55</sup>. Mary Elizabeth Hughes et al. reveal that marital trajectory has a more substantial reflection on health conditions that develop relatively slowly, for instance, conditions such as long-term illness or mobility impairment (indicating the importance of time spent in a particular state), while other conditions, such as signs of depression, appear to be more sensitive to current marital status<sup>56</sup>. Contrary to what has been previously pointed out for marriage, it has long been assumed that divorce has only negative effects on health, whether in the short or long term, even among those who have remarried<sup>1</sup>. However, a recent study conducted in Europe by Monden et al. provides evidence of heterogeneous, or better said, sex effects of marital dissolution on self-rated health. They emphasised that men's separation improved rather than worsened health, while women fared much worse after such a break<sup>57</sup>. If reverse causality is considered, sex-specific social pathways also appear to be. Karraker et al. pointed out that only severe physical illness in the wife was associated with an increased likelihood of divorce<sup>58</sup>. Even though the association, as mentioned earlier, between marriage and health seem to have certain patterns, it still seems important to place marital unions in their particular historical and social context<sup>59</sup>. This includes giving due consideration to the increasing complexity of relationship histories, especially as marriage alone is no longer sufficient to fully understand how life with or without a partner affects health; therefore, a broader framework should be considered<sup>1</sup>.

Namely, as a result of socio-anthropological trends, relationship patterns and attitudes are changing, so studying the association between marriage, but also partnerships in general, and health requires a much broader perspective. Therefore, it is now recognised that the health effects of marriage are complex and multifaceted and cannot be fully understood through the study of marriage alone<sup>60</sup>.

When considering the association between widowhood and health, particularly depression, there do not appear to be sex differences<sup>61</sup>. In all marriage groups, the continuously married have much better health than the widowed, whereas early or long-term widowhood is usually associated with much worse health outcomes than late widowhood<sup>57</sup>. Moreover, individuals who report higher marital quality at the beginning of widowhood reveal more severe depression symptoms after entering widowhood than individuals with lower marital quality. According to the findings of Hsiao et al., the loss of a spouse is often associated with a higher likelihood of dying and negatively reflects on health. However, participation in social activities can reduce the risk of death for widowed individuals<sup>62</sup>, and this is consistent with previous studies that emphasise the importance of social support from the family in maintaining health<sup>30</sup>. Similarly, Peña-Longobardo et al. pointed out that individuals who have lost their spouse have a higher likelihood of experiencing poorer well-being and mental health. Additionally, they are more likely to receive care from sources outside their home, both formal and informal<sup>63</sup>.

The effects of marriage and marital trajectory on mortality have been studied extensively in the United States of America and various European regions, and it has been noticed that for both women and men, there is a consistent survival advantage for married compared to unmarried individuals. According to some authors, being married provides health and survival compared advantages to unmarried individuals due to factors such as having a support system, maintaining good health habits, being financially stable, experiencing less stress, and engaging in more social activities<sup>7</sup>. However, it should be remem-

bered that there is still relatively little evidence of differences in mortality between the unmarried, the divorced or separated and the widowed<sup>1</sup>.

#### PARENTING AND THE HEALTH OF ADULTS

Parenting and health are closely intertwined with the history of cohabitation and its association with adult health and, at the same time, with the history of offspring and the association between parenthood and health, including multifactor<sup>64</sup>. Studies have identified two basic causal pathways influencing the association between individuals' fertility and subsequent health outcomes or, more precisely, survival. Namely, there is evidence of biological effects or, in other words, direct long-term physical and mental consequences of female reproductive history on certain diseases<sup>65</sup>. According to the study conducted by Grundy et al., there is an association between breast cancer, other cancers of the female reproductive system and some other malignant diseases with pregnancy, childbirth and breastfeeding at a later age<sup>66</sup>, which the pregnancy-related changes in sex hormones maybe can explain<sup>67</sup>. It has also been noticed that pregnancy could be significantly associated with various social factors that could have desirable and undesirable effects on women's and men's health in later life. In particular, differences in socioeconomic position, social relationships and health behaviours during life were highlighted as potentially necessary in this regard<sup>65</sup>. Having children, especially at a young age, can lead to economic strain, while having children outside of marriage indicates a possible association with a generally lower socioeconomic position and poorer coping within the family throughout life<sup>68</sup>. There is also a great possibility for role overload and stress related to child-rearing, especially for single parents. However, this is also counterbalanced by parenthood's potential numerous health benefits, such as better community participation opportunities and more outstanding social support for children later in life. In addition, parenting may be associated with incentives and social pressures to adopt healthier behaviours<sup>1</sup>. Parenting, in general, is an enriching experience that can have numerous positive effects on the health of parents and chil-



dren<sup>14</sup>, as shown in the study by Chen et al., which indicated that positive parenting has different positive effects on the health of the parents and the child<sup>69</sup>.

The major importance of all these biological and social factors in the association between parents' health and their children's needs is to be better understood. Causal analysis is further complicated by a range of possible effects on selection, more specifically on the factors that influence fertility and health. Recent evidence suggests that the previously described association between fertility and health may vary across social contexts<sup>70</sup>. Accordingly, Emily Grundy et al. have pointed out that family-friendly policies, such as generous parental leave, could lead to various long-term health benefits for parents and, at the same time, children as well<sup>66</sup>.

#### FAMILY STRUCTURE AND THE HEALTH OF CHILDREN

In addition to child abuse, parental separation and divorce are the main family threats to children's health or general well-being. Four levels of child well-being can be distinguished—physical, mental, social and cognitive-educational well-being<sup>1</sup>. A child's physical well-being encompasses the child's overall physical health, while mental health reflects how children think about themselves and their future and how they cope with their feelings and the demands of certain circumstances<sup>50</sup>. Particular views of the child's mental well-being primarily include the adoption of social norms, certain behaviours, internalisation, externalisation difficulties in everyday behaviour, depression, the perception of stress, self-esteem, and the experience of sovereignty and participation<sup>1</sup>. Generally, a child's social well-being has been related to how comfortable they feel in their social relationships. Parent-child relationships are among the most important, especially good communication, but conversations and other components of a good overall relationship state are also noteworthy. This also includes good peer relationships, which are an important feature of a child's interpersonal well-being<sup>50</sup>. A child's cognitive-educational well-being includes their learning abilities and use of educational op-

portunities, which is also closely related to long-term health outcomes<sup>1</sup>. Some family structures may reflect positively on children's health, while others may not have such a positive or even can have adverse effects. However, it is important to consider various factors that can significantly reflect on overall health, such as the age and personality of the child, the behaviour of the parents, environmental and social aspects and, very considerably, the influence of society<sup>8</sup>. Changes in family structure can also affect children's and ex-partners' access to health care, as they are less likely to have health insurance or access to preventive care<sup>47</sup>.

Lee et al. found that people who grew up in multigenerational families had better cognitive abilities, even if they lived with a single parent and grandparents, regardless of socioeconomic status and health outcomes in childhood and adulthood<sup>15</sup>. These positive reflections can also be observed in children from extended or consanguineous families. This is especially evident in children from cooperative or communal families, which is expected as these families usually take a collective approach to parenting and decision-making, leading to a strong sense of shared responsibility and cooperation among family members, including children<sup>8</sup>. According to Manning et al., children from same-sex parent families fare as well as children living in households with heterosexual parents across a broad spectrum of well-being<sup>71</sup>. Mazrekaj et al. showed no discernible difference in behaviour between children raised by same-sex parents and those raised by heterosexual parents<sup>17</sup>, but some studies found that children raised by same-sex parents perform better in certain areas of psychological adjustment than children raised by heterosexual parents<sup>34</sup>. On the contrary, children from blended, foster, adoptive and similar family structures may have behavioural and health problems since they are considered highly vulnerable. Therefore, these structures are often challenging for parents to achieve and maintain the child's well-being<sup>16</sup>. In accordance with Manning, children from blended families are more likely to be neglected and abused and develop long-term behavioural and mental health problems that can persist into

adulthood<sup>72</sup>. Similarly, Jacobsen et al. found that children from foster families are at risk of developing problems in the social-emotional sphere<sup>73</sup>, and they can also have various health problems<sup>19</sup>. Duncan et al. noticed that adopted children are at greater risk of developing mental and behavioural difficulties or using psychiatric services than their non-adopted peers<sup>74</sup>. Also, children from single-parent families may face additional challenges and be more vulnerable to certain adverse influences that can be negatively reflected

In recent years, increasing attention has been paid to the nature of residence and custody in separated families and the associated stresses and protective factors. This is because the traditional nuclear family structure is becoming increasingly rare, and families are increasingly affected by separation or divorce.

in their health<sup>14</sup>. Although the literature shows that grandparents successfully cope with parenting<sup>18</sup>, there may be some undesirable effects on children from grandparent-headed families. Namely, according to Nanthamongkolchai et al., children raised by a grandparent have twice the risk of delayed development as children raised by their parents<sup>75</sup>.

Numerous empirical research, particularly from the United States of America, generally shows that children with separated or divorced parents tend to do worse on measures of a range of behavioural, emotional, social or cognitive outcomes than children living with both biological parents. Of particular concern is that these inequalities have been noticed to persist into adulthood<sup>76</sup>. D'Onofrio et al. have also confirmed that divorce negatively reflects children's health<sup>77</sup>, and other researchers have come to similar conclusions<sup>78</sup>. However, parental divorce is not a one-time event but a long-term developmental process that begins when parents are still married and usually ends years after the legal act. In the underlying explanatory model for the observations on adjustment to divorce, it has proved that the decision to divorce itself actually has negligible direct effects on children's well-being but that the stresses associated with divorce may

increase the likelihood of emotional, behavioural and health difficulties for children<sup>79</sup>. Many studies have established that many different factors influence children's behaviour and the speed of their adjustment to parental divorce<sup>80</sup>. Studies have also displayed that the well-being of children with separated or divorced parents is usually threatened by stresses that affect both parents and children<sup>76</sup>. Separated parents may experience stress due to a decline in emotional support, increased frequency of conflict with the former partner or financial insecurity. Many common causes of family stress also include a change of residence or job<sup>50</sup>. It has been found that a decline in parental support and guidance, a decrease or loss of contact with a parent, ongoing conflict between parents, or an economic downturn can cause children to experience stresses that significantly affect their well-being<sup>80</sup>. A change of school, residence and/or the loss of friends is also a significant cause of stress after a separation that jeopardises children's well-being. However, it has been observed that certain protective factors can significantly influence separation and divorce<sup>1</sup>. The interplay of stress and protective factors helps explain why children's reactions to separation and divorce vary greatly individually<sup>81</sup>. The well-being of children living with single parents and their new cohabiting partners is characterised by protected factors such as available support (individual, interpersonal and organisational), one-sided perceptions of separation and divorce, socio-demographic characteristics, the sex of the child, the number of siblings and stepsiblings and the age of the child at the time of the parent's separation<sup>82</sup>. It has also been pointed out that a high level of shared parental responsibility between the adults involved, or children's participation in decision-making, can also act as a protective factor, reducing post-separation stress and increasing children's well-being<sup>83</sup>. By reducing stress and promoting a sense of stability and security, these protective factors can help prevent children from the negative effects of separation, such as emotional stress, behavioural problems and difficulties at school. Finally, this can contribute to better long-term outcomes for children, including better mental

health, social relationships and school performance<sup>50</sup>. In recent years, increasing attention has been paid to the nature of residence and custody in separated families and the associated stresses and protective factors. This is because the traditional nuclear family structure is becoming increasingly rare, and families are increasingly affected by separation or divorce. Therefore, it is becoming increasingly important to understand the influence of these changes on children and families. Swiss et al. highlighted that contact between father and child is also often significantly reduced or completely lost during separation and divorce<sup>84</sup>. While this can significantly reduce stress if the father is a source of tension when conflicts in the family are eliminated, losing contact with the father is still an important factor that can reduce the children's some opportunities<sup>85</sup>. However, the involvement of both parents in child-rearing has increased significantly in recent years, so fathers now generally have more frequent contact with their children even after separation. The number of working mothers sharing parental responsibilities with the fathers of their children has also increased, both before and after separation<sup>86</sup>. Taken together, these trends lead to more post-separation family units, or, more properly said, occurrences of multi-person households, which pose different challenges to all family members and are likely to reflect the health and well-being of individuals in some way, both children and the parents<sup>79</sup>. Divorce is also an economic blow to the family, as the family's overall income is usually reduced. In many cases, the standard of living of both spouses may drop after a divorce as they have to adjust to a new financial reality<sup>87</sup>. Running two separate households can be more expensive than sharing expenses in a single household. There may also be additional costs for legal fees, alimony, child support and other related expenses. Teachman et al. have shed light on the adverse financial consequences of divorce, particularly its effect on the economic well-being of women and children, which can significantly affect their overall quality of life and, ultimately, their health and well-being<sup>88</sup>. On the other hand, divorced men often do not suffer a loss of income but may even

see an increase in their income<sup>89</sup>. This result is not surprising since, in most cases, mothers take on the main responsibility for raising their children after divorce, while fathers often do not contribute to the costs of raising children or pay alimony, thus avoiding significant financial obligations<sup>90</sup>. As a result, legislation in many countries has recognised the importance of financial's legal protection for children after divorce. This has led to mandatory alimony payments, including in Croatia, to reduce the reflection on the child's standard of living after divorce, which can have a negative effect on the children's health and well-being<sup>91</sup>.

#### FAMILY DYNAMICS AND THE HEALTH OF CHILDREN

The reflection of family dynamics on children's physical and emotional states also cannot be overstated. How a family interacts, how they behave, and their relationships can have a lasting reflection on children's health and overall well-being. It is therefore important to recognise the role of family dynamics in shaping children's growth, development and, thus, health<sup>92</sup>. Lazarevic et al. showed that negative family dynamics are associated with adverse health outcomes in children, while positive family dynamics are related to positive health outcomes<sup>93</sup>. This was also confirmed by Alm et al., who demonstrated the adverse effects of negative family relationships on the somatic health of adolescents. Their findings suggest that individuals who experience such family dynamics difficulties in childhood are at higher risk for serious health consequences that can persist into late adulthood<sup>94</sup>. Children's health and overall well-being are greatly influenced by the dynamics in their families, both in the present and long term<sup>7</sup>. Negative family dynamics are often associated with adverse childhood experiences (ACEs), leading to mental and physical health problems, ineffective coping mechanisms, relationship difficulties, reduced resilience, school and work challenges and numerous other difficulties in everyday functioning<sup>95</sup>. In contrast to a negative family dynamic, a positive one is created when the family members have a strong bond and harmonise with each

other. A positive family dynamic occurs when the family members have a strong bond and can harmonise with each other. This is especially important during the formative years of childhood and adolescence. Fostering a positive family dynamic during these years creates a foundation for supportive and harmonious relationships in adulthood. Studies have shown that positive family dynamics are associated with better physical and mental health and overall life satisfaction<sup>46</sup>. Positive family dynamics were also found to be associated with greater emotional well-being, lower risk of mental illness, eating disorders, overweight or obesity and marijuana use<sup>69</sup>. According to Chen et al., it is evident that positive family relationships in childhood can significantly reflect physical health throughout life. This is because these relationships can help mitigate the adverse effects of childhood stressors on biological processes that can lead to disease. In addition, positive family dynamics can also shape health behaviours and contribute to better physical health from childhood into adulthood. Overall, it is clear that positive family dynamics can play an important role in children's health and well-being<sup>96</sup>. In addition, Chen et al. revealed that maintaining positive family relationships in adolescence can lead to better mental health in both men and women from early adolescence to midlife<sup>43</sup>. Whitaker et al. demonstrated that positive family relationships can significantly influence adolescent well-being and success. Positive family dynamics not only help adolescents avoid adverse outcomes but also contribute to their flourishing. The study found that greater family connection could lead to better success for children in their lives<sup>97</sup>.

#### THE CONCEPT OF HEALTH OF AN INDIVIDUAL IN THE FAMILY

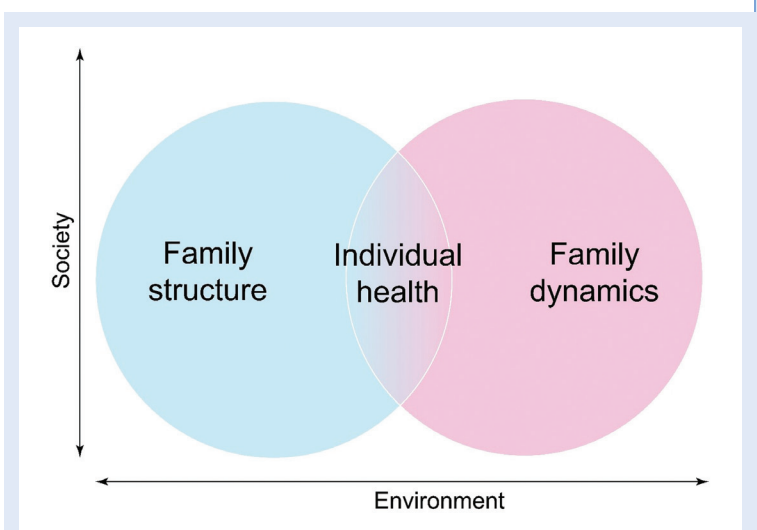
As previously stated, society and the environment, in general, can significantly influence the structure and dynamics of a family. At the same time, family structure and dynamics can strongly reflect on the individual's health. The interaction between family structure and dynamics is complex and multi-layered, and its effect on health can vary greatly depending on the individual and community circumstances<sup>98</sup>. The functioning of

families is highly influenced by the social and environmental context in which they live. This context plays a crucial role in shaping the opportunities, values, roles, responsibilities and actions that families take on. The framework in which families operate is a multi-complex interplay of various societal and environmental factors that influence family structure and dynamics, which then reflects on family members' well-being and health<sup>99</sup>.

The environment encompasses both the physical and social context in which families live. Physical factors such as geographical location, housing conditions and neighbourhood characteristics can significantly influence family structures. Urban areas tend to have smaller living spaces, which can affect the size and composition of families. On the other hand, rural areas may favour large families because of the larger space available and closer community<sup>100</sup>. In addition, environmental factors such as access to healthcare system services, education and socio-economic opportunities as social factors can influence families' choices and decisions<sup>101</sup>. Families living in areas with limited access to quality healthcare system services or education possibilities may struggle to provide optimal care and opportunities for their members. These environmental constraints may also influence family dynamics, decision-making processes and overall health outcomes<sup>102</sup>. Studies have indicated that the offspring of parents with higher levels of education tend to have better health<sup>103</sup>. It was also demonstrated that there was a positive correlation between the level of education of offspring and their overall health and lifespan. In other words, individuals with higher levels of education tend to have better health and live longer than those with lower levels of education. However, this all again depends on environmental factors related to the availability of education to families<sup>104</sup>.

Society plays a vital role in defining societal norms, values and expectations that families internalise and incorporate into their structure and dynamics. Cultural and religious beliefs, sex roles and social norms influence how families interact and function<sup>99</sup>. Societal attitudes towards diverse family structures such as single-parent families,

blended families or same-sex families can influence the acceptance and support these families receive. Stigmatisation or lack of social support can create additional stressors for families and affect their health and overall well-being<sup>105</sup>. Studies have revealed that significant societal risk factors lead to poor family outcomes, including the negative effects of stigma and discrimination, which can severely affect family health and well-being<sup>34</sup>. Society plays an important role in shaping family dynamics by influencing norms, values and expectations. Social constructs such as sex roles, marriage ideals, division of labour and parenting styles can affect how family members interact and fulfil their roles<sup>106</sup>. Economic factors such as employment opportunities and income inequality can also influence family dynamics by affecting various aspects such as division of labour and decision-making power<sup>107</sup>. In addition, cultural and technological changes, such as the advent of social media or increasing mobility, can bring new challenges and opportunities for the family that further influence its dynamics<sup>106</sup>. In patriarchal societies, male dominance may prevail, leading to different sex roles and power dynamics within the family. Such expectations can affect the distribution of housework, career choices and decision-making processes and influence family members' health and well-being<sup>14</sup>. It is well established that society and the environment have a great influence on human health and well-being<sup>108</sup>, and from all the above, it is clear that together they significantly shape the family structure and dynamics. Thus, we can propose that these interactions form a dynamic system in which the individual's health reflects the interplay of family structure, family dynamics and the influence of society and environment, thus forming the conceptual model of health in the family. This conceptual model can be referred to as the socio-ecological model of health in the family, where its name captures the key elements of the model by highlighting the interplay between social (family dynamics and societal factors) and ecological (family structure and environment) influences on an individual's health in the family context. This conceptual model provides a simplified representation of the complex



**Figure 1.** The Socio-Ecological Conceptual Model of Health in the Family

interplay between these factors and their reflection on the health of individual family members. In the real world, there may be additional variables and complexities. Nevertheless, the socio-ecological conceptual model of health in the family as a simplified framework that attempts to illustrate the interplay of the major factors that can affect an individual's health in the family and can help to visualise how different aspects of individuals' lives, such as social and environmental factors, can shape their family life and consequently reflect their health and well-being, which we consider is ultimately the result of the interplay of these main factors (Figure 1).

## CONCLUSION

The family is a fundamental social institution that plays an important role in reflecting the health of individuals throughout their lives. Although family structures have evolved and diversified, the influence of the family remains one of the most important social determinants of health. The distribution of housework and care responsibilities within the family has shifted over time, reflecting changes in sex roles and societal norms. Family structures have expanded to include different forms, such as multigenerational families, single-parent families, families with same-sex parents, blended families and more.

The reflection of family structure and dynamics on health is complex and multifaceted, with both

positive and negative effects. The benefits to health and general living in a family with balanced family structures and positive interactions increase with the number of diverse family members. Accordingly, living in an extended or multi-generational family can have a positive effect on the burden of multimorbidity and healthspan, while families with communal structures generally have a positive effect on the social integration and general well-being of their members. In contrast, single-parent or grandparent-headed families often face economic problems and a decline in some members' health. In blended, foster and adoptive families, health can depend primarily on many factors that can be critical to health outcomes. Furthermore, relatively new family structures, such as same-sex parent and childless families, can have significant health benefits for their members, among other advantages. Positive family dynamics, characterised by support, communication and balance, are associated with better physical and mental health. Negative family dynamics, on the other hand, can lead to mental health problems and substance abuse.

Marriage, divorce, widowhood and parenthood are major life events that intersect with family structure and dynamics, with multiple factors contributing to the complex connection between family and health. The effect of marriage on health can vary depending on factors such as sex, marital trajectory, and the presence of severe health conditions. Divorce and widowhood can have mixed effects on health, with different factors influencing health outcomes. There is a complex connection between parenthood and health, influenced by biological and social factors, and children's health is reflected in family structure and dynamics, with a positive family environment promoting health.

By understanding the interplay between family structure, family dynamics, society and the environment, policymakers, health professionals, and individuals themselves can work to promote healthier family structures and dynamics and ultimately improve the health of individuals and their families. Therefore, after summarising the currently available scientific evidence on this top-

ic, we have proposed the socio-ecological conceptual model of family health to illustrate which major factors can shape family health and lead to individual health through mutual interaction. It provides a framework that can help visualise different aspects of an individual's life, such as social and environmental factors that shape family life and can reflect on the individual's health. By recognising and addressing the multiple factors that influence an individual's health in the family, it is possible to work towards optimal health and well-being for the individual and society as a whole. It is, therefore, very important to study the influence of the family as a fundamental social unit and how its structure and dynamics change under the influence of society and the environment, and how that reflects on the health of individuals so that successful public health interventions can be designed and implemented to improve the health of people in families.

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