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The Impact of Family Communication on Adolescent Satisfaction with Family Life Across Different Family Structures

SUMMARY

The Circumplex Model of Marital and Family Systems is one of the most widely used approaches in family studies. This model assumes that family communication is an important element in achieving positive family functioning because it allows family members to alter their levels of flexibility and cohesion. While this theoretical approach has been widely used and tested there are still some gaps in the empirical evidence on the universality of its assumptions. Considering that adolescents today live in a wide variety of families, that are very diverse according to their structures, it is important from an ethical standpoint to test the universality of any theoretical framework that is used in family interventions. This study therefore sought to investigate whether there are differences in satisfaction with family life and family communication in families with different structures and whether family communication is an important correlate of satisfaction with family life in all types of families, using data from a study of adolescents from Zagreb, Croatia (N = 4 821). Linear regression was used to evaluate the association of family satisfaction (dependent variable) with family communication and parental marital status (predictor variables) with the additional inclusion of interaction effects between family communication and parental marital status. The results of this study have shown that adolescents are generally satisfied with their family life and that there are differences in perceived family satisfaction and family communication between adolescents regarding the marital status of their parents. The results presented in this paper support the main hypothesis that in families with adolescents, family communication is strongly associated with family satisfaction, independently of parental marital status. The findings suggest that interventions aimed at improving family communication skills in adolescent families could benefit all families with adolescents.

Keywords: family life satisfaction, adolescence, family communication, family diversity, universality.

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INTRODUCTION

The family is generally considered to be the most important environment for children's development. The interactions between parents and children provide parents with the opportunity to coach children and adolescents and model prosocial behavior. As part of the family and within the cultural context of the family, children quickly acquire knowledge about what is expected of them and what it means to be a member of a social group (Dworkin & Serido, 2017; Wikle & Hoagland, 2020). In the family environment, children and adolescents gain insights, knowledge, and experiences related to developing the capacity for self-awareness and learning to manage and regulate emotions in a meaningful way, developing and strengthening social and emotional skills, and building and maintaining relationships with others, and strengthening the cognitive skills needed to accomplish tasks and achieve goals (Dworkin & Serido, 2017). It is important to emphasize that a positive relationship between parents and adolescents, characterized by open communication and support (Hair et al., 2009a), is of great importance for the development of adolescents going through the physical and emotional changes of adolescence (Sacks et al., 2014). Adolescents who report a good relationship with at least one parent (Hair et al., 2009b) and high levels of family engagement, absence of negative interactions and hostility, and high levels of relationship satisfaction in the family environment (Ackerman et al., 2013) are more likely to report good physical and mental health (Hair et al., 2009b).

The environment in which children grow up has changed dramatically over the last two decades (Rees, 2017; Weissberg et al., 2003). In the past, most children were born and raised by married parents, but in recent decades children's circumstances have become increasingly diverse and unstable. Several factors such as rural-urban migration, recession, declining fertility rates, a rising average age at childbearing, the decline in marriages, the rising divorce rate, and the influx of women into the workforce have contributed to the emergence of new and diverse family forms (Anakwe et al., 2020; Rees, 2017; Sobotka & Toulemon, 2008; Weissberg et al., 2003). Today, it is more common for unmarried women to bear and raise children, and dual-career couples and mothers working outside the home have become the norm. Family structure remains an important and understudied dimension of an adolescent's family context and can be defined by children's living arrangements with their parents or guardians (Wikle & Hoagland, 2020). Children and adolescents today may live with two biological or adoptive parents (nuclear families), with unmarried cohabiting parents, one parent (single-parent families), one biological and one non-biological parent (stepfamilies), with or without step- and half-siblings, and in families with frequent transitions and instability (Jensen et al., 2014; Wasserman,

2020). Growing up in a different family structure brings certain challenges and can have an impact on the health and well-being of children and adolescents. However, structural changes in families contribute to increased stress among adults and frequent parental absence from family life. They often reduce the time for quality family interactions and make it more difficult for families to combat harmful influences from other environments such as peer groups, media, and communities (Weissberg et al., 2003). Growing up in a different family structure can be challenging, but it is important to note that the benefits to children's development and well-being do not depend solely on the marital status of the parents. The combination of resources in the family and the characteristics of children, parents, and their relationships are also important. Children's outcomes are no better when they grow up in a family with both biological and married parents, but with limited resources (financial/educational/emotional) than when they grow up in a different family structure, so togetherness, mutual investment, and support for development are critical (Ryan, 2012; Wasserman, 2020). For families to fulfill their role in society and make a significant and positive contribution to youth development, families must function well (Booyesen, et al., 2021).

The Circumplex Model of Marital and Family Systems is one of the most widely used approaches in family studies. According to the model, there are three key dimensions in conceptualizing family functioning and interactions: cohesion, flexibility, and communication (Olson, 2011). Families that function well according to this theoretical model have balanced levels of cohesion and flexibility. Communication, as the third dimension in the model, facilitates the relative levels of cohesion and flexibility within families, i.e., it allows family members to alter their levels of flexibility and cohesion. One of the main assumptions of the Circumplex Model is therefore that „Balanced types of couples and families will have more positive communication compared to unbalanced systems“ (Olson, 2000, p.153). Positive communication skills utilized in the family system support family members' engagement with and responsiveness to one another (Priest et al., 2020). According to the model, there are six important aspects of family communication: listening skills (empathy and active listening), speaking skills (speaking for oneself and not for others), self-disclosure (sharing feelings about oneself and the relationship), tracking (staying on topic), and respect and regard (affective aspects of communication) (Olson et al., 2019).

Family satisfaction is regarded as one of the indicators of family functioning in the Circumplex Model and as an important outcome measure. Family life satisfaction is described as the degree to which family members are satisfied with the level of support they receive, the way family problems are resolved, the quality of time spent together, and the degree of independence within the family (Caprara et al., 2005; Kovčo Vukadin et al., 2016). Olson (2011) states that family satisfaction is

a construct that reflects several family assets and is defined as the extent to which one feels satisfied and gratified within one's family. For a family to function well, all the family members need to be satisfied with the patterns of family interaction. This subjective dimension of family functioning is especially important when one considers ethnic and cultural diversity. While, according to the Circumplex Model, families that function well have balanced levels of cohesion and flexibility, the Model recognizes that some families operate in a functional manner using patterns that are more extreme and unbalanced (Olson, 2000). Therefore, family satisfaction is an important measure of family functioning because it enables researchers to take into consideration cultural diversity when assessing family outcomes. Family satisfaction encompasses satisfaction with all three dimensions of family functioning: cohesion, flexibility, and communication and therefore includes satisfaction with emotional bonding, coalitions, time, space, friends, and interests (cohesion), satisfaction with leadership style, negotiation style, role relationship and relationship rules (flexibility), satisfaction with speaking and listening skills, empathy and negotiation skills (communication) (Olson et al., 2019).

Family structure is another important factor that is a predictor of family functioning. Family structure represents a significant dimension of heterogeneity in adolescents' lives, considering that the family context is the adolescent's closest social environment (Wikle & Hoagland, 2020). Some study results show that adolescents' perceived life satisfaction is related to family variables such as family composition, parent-child conflict, and social support, which have been identified as important factors (Suldo & Huebner, 2004). In addition, study results have shown that there is a difference in adolescents' life satisfaction concerning family structure, i.e. adolescents living with both parents tend to have higher life satisfaction (Sastre & Ferriere, 2000) and living with one parent and stepfather/stepmother or other adults, as well as living without a parent, is significantly related to reported life dissatisfaction (Zullig et al., 2005). On the other hand, based on a comparative analysis in eight European countries on children's subjective well-being, Rees (2017) finds that the amount of time children spend with their family is a stronger predictor of satisfaction with family life than family type.

Another important element for family functioning is family communication. Family communication encompasses many aspects of family interactions and is expected to be associated with family satisfaction, i.e., families with high levels of family satisfaction should report significantly better family communication than families with low levels of satisfaction. But is it like this in all families? The Circumplex Model has so far been used with diverse couple and family systems in terms of marital status, living arrangement, family structure, and stage of family life cycle (Olson et al., 2019). While many main hypotheses of the Circumplex Model have been

tested so far in diverse families, there are still many more underlying assumptions of the model that need to be verified. This study aims to specifically test whether family communication is equally associated with family satisfaction in families of adolescents with differing parental marital status. Since family communication helps families change their level of cohesion and flexibility to deal with ongoing issues, it is especially important in the stage of the family life cycle when a child enters adolescence, as this brings many changes to the family dynamic. Also, considering that in the current age adolescents live in diverse family structures it is very important to verify whether family communication is equally associated to family satisfaction in all family types.

There have been previous studies that have looked at other Circumplex Model assumptions in adolescent families with differing parental marital status. For example, a study by Everri, Mancini and Fruggeri (2016) found six family types that corresponded to those foreseen by the Circumplex Model that did not differ in terms of adolescent age, gender, and family structure, but differed in the extent to which they illuminated family dynamics that could be either functional or dysfunctional for the developmental tasks in adolescence. On the other hand, there is a scarcity of studies that have looked at specifically family communication and family satisfaction as conceptualized in the Circumplex model in adolescent families with varying structures. A study by Akhlaq et al. (2013) on a small sample of adolescents from Pakistan found that family communication is significantly associated with family satisfaction and that there are no differences in family communication and family satisfaction in joint/extended or nuclear families. Yet, taking into account cultural and regional differences, empirical evidence on the effect of different family structures based on parental marital status on the relationship between family communication and family satisfaction is still lacking. Based on the theoretical assumptions of the Circumplex model the authors hypothesize that family communication will be strongly associated with family satisfaction, independently of parental marital status. That is, the aim of this study is to investigate whether there are differences in satisfaction with family life and family communication in families with different structures, and whether family communication is an important correlate of satisfaction with family life in all types of families. These findings may help in deciding where the focus should be in working with different types of families in terms of strengthening family communication skills.

METHODS

Sample

The research project "Positive Development of City of Zagreb's Youth – state of the art" was done during 2017 on 4 821 students in the city of Zagreb. The survey was conducted on a representative, stratified cluster sample based on three Croatian high-school programs (three-year vocational program, four-year vocational program, and gymnasium program), number of students per grade, and education programs within each of these schools. Sample accounts for 15% of the population of Zagreb high-school students that in the given ratio of set criteria (type of high-school program, grade, and education program) reflects the total population of high-school students in the city of Zagreb. Sample consisted of 48 % of girls ($n = 2\,325$) and 44 % of boys ($n = 2\,108$), while for 8 % of participants there is no sex information ($n = 388$). Age ranges from 14 to 19, while average age of participant is 16 ($M = 16,17$, $SD\ age = 1,143$). Research was done in 25 high-schools and included students from gymnasium (37,4 %, $n = 1\,804$), four-year vocational (48,7 %, $n = 2\,349$) and three-year vocational program (13,9 %, $n = 668$).

Research process

Research was done following the provisions of the Ethics Code for Researching Children (Ajduković & Kolesarić, 2003) and following the approval of the Ethical Committee of the Faculty of Education and Rehabilitation Sciences at the University of Zagreb and the Ministry of Science and Education. A questionnaire was applied in schools, in smaller groups of up to 30 students, with the pen and paper method. The time allotted for filling out the questionnaire was 45 minutes, and students were offered help in terms of additional clarification of certain questions. Participation in this research was voluntary, and all participants gave their written consent to participate in this research in a form that included information about the research and its aims, methods of handling data, participants' rights and protection, and possible risks. Before the administration of the questionnaire, participants were verbally introduced to the research aim and objectives, they were informed that their participation was anonymous and voluntary and that they were free to quit any time they wished. The questionnaire was administered by researchers and specially trained associates on the project, students of graduate studies (it will be added after peer review).

Variables and scales

This study has been carried out as part of a project "Positive Development of City of Zagreb's Youth – state of the art" The questionnaire was developed for the purpose of this project, and it consists of several different scales in the area of risk behaviours, internalised symptoms, focused awareness, social-emotional skills, satisfaction with family life, attachment to school, resilience, family communication, life events, and additional questions to collect sociodemographic data on research participants.

For this paper the following data were used:

1. Demographic data was gathered using the Questionnaire on demographic data that was developed for this project and which consists of questions for gathering basic participant data, such as sex, age, parents' marital status, and maternal and paternal education level. Data on sex was collected via questions with two answer options: 1) male, 2) female. Data on age was collected via a question that had five answer options: 0) 14 years, 1) 15 years, 2) 16 years, 3) 17 years, 4) 18 years, 5) 19 years. Data on parents' marital status was collected via a question that had six answer categories as options: 1) married and living together, 2) married, but not living together, 3) extramarital union, 4) divorced, 5) one parent passed away, 6) other. Data on maternal and paternal education level was collected via two separate questions relating to the students' mothers and fathers that had 5 possible answer options: 1) unfinished elementary school, 2) finished elementary school, 3) finished secondary school, 4) finished undergraduate degree, 5) finished graduate degree and higher.
2. Family communication was measured using the Family Communication Scale from the Family Adaptability and Cohesion Evaluation Scale - FACES IV (Olson & Gorall, 2006). The scale contains 10 items that assess the degree of agreement with claims covering different aspects of positive family communication, e.g., "family members discuss their ideas and beliefs with each other," and "family members try to understand each other's feelings." Respondents were asked to read the items and to assess the degree to which they agree with them, considering the family members they live with. The possible options were: 1) strongly disagree, 2) generally disagree, 3) undecided, 4) generally agree and 5) strongly agree. All items of the Family Communication scale were added together, and the sum of these items was used as a total score. The possible range of scores was from 10 to 50. Cronbach's α in this sample was 0,94.
3. Family satisfaction was measured using the Family Satisfaction Scale from the Family Adaptability and Cohesion Evaluation Scale - FACES IV (Olson & Gorall, 2006). The scale contains 10 items and assesses the degree of satisfaction

with aspects related to family cohesion, flexibility, and communication, e.g., “the degree of closeness between family members”, “your family’s ability to cope with stress”, “the quality of communication between family members”. Respondents were asked to read the items and to assess the degree to which they are satisfied with them. The possible options were: 1) very dissatisfied, 2) somewhat dissatisfied, 3) generally satisfied, 4) very satisfied and 5) extremely satisfied. All items of the Family Satisfaction scale were added together and the sum of these items was used as a total score. The possible range of scores was from 10 to 50. Cronbach’s α in this sample was 0,94.

The scales that were used were translated from English and validated in previous research studies conducted in Croatia (project FamResPlan, funded by Croatian Science Foundation, grant number IP-2014-09-9515; Maurović et al., 2020).

Statistical analysis

The data were analyzed using IBM SPSS (version 26.0) predictive analytical software. Descriptive statistics (frequencies, percentages, means, medians, modes, standard deviations) were calculated for all investigated variables where appropriate. Due to the non-parametric nature of the data, Kruskal-Wallis test was used to compare family communication and family satisfaction in groups based on parents’ marital status, followed by Dunn-Bonferroni post hoc tests. Linear regression was used to evaluate the association of family satisfaction (dependent variable) with family communication and parental marital status (predictor variables). The regression model also included interaction effects between family communication and parental marital status. Family communication was mean-centered before entering the model to avoid multicollinearity issues, and parental marital status was turned into 5 dummy variables (married but not living together, extramarital union, divorced, one parent passed away, other) while married and living together was treated as a reference value. The model was adjusted for sex and age since previous research shows that there could be age and sex differences in the perception of other dimensions of family functioning among adolescents (Baiocco et al., 2013) and a previous study on this sample has shown that there is a gender difference in satisfaction with family life: boys were more satisfied with family life than girls (Belošević & Ferić, 2020). The model was also adjusted for maternal and paternal educational status as a measure of socioeconomic status since it is presumed that socioeconomic status has a role in the relationship between family structure and family functioning (Booyesen et al., 2021). All assumptions for multiple regression were checked. Analysis showed the absence of multicollinearity given the fact that the analysis has yielded VIF values lower than 2 for all predictors and VIF values exceeding 10 are considered problematic as they

suggest a strong linear correlation of predictors (Pituch & Stevens, 2016). Because of heteroscedasticity, weighted least squares regression was performed. The level of statistical significance was set at $p < 0,05$.

RESULTS

A large majority of participants had parents who were married and living together (78,6%), followed by having divorced parents (13,4%). Other categories were much less frequent: one parent passed away (3,2%), married parents not living together (2,3%), extramarital union (1,8%), and other (0,7%). Distributions of family communication and family satisfaction scores are presented in Figures 1 and 2. Both distributions are heavily negatively skewed with a median of 40 and a mode of 50 in both distributions.

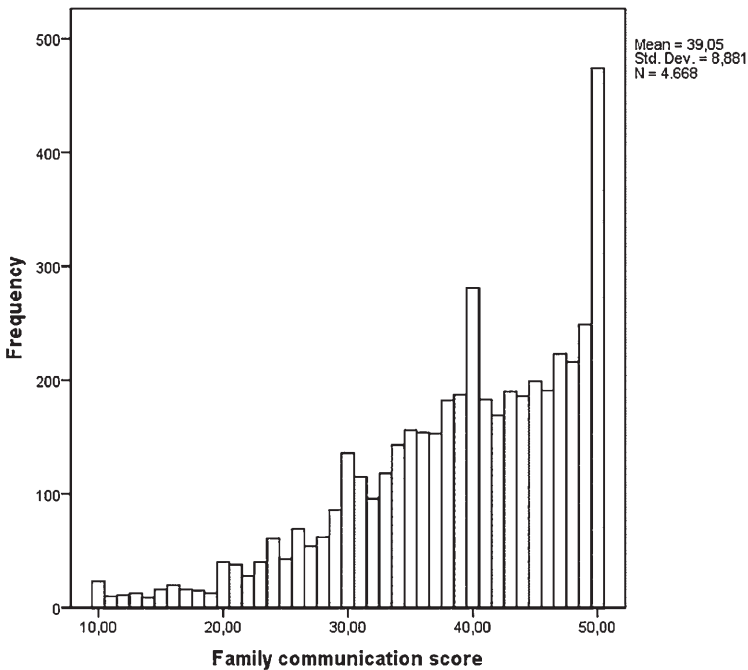


Figure 1. Distribution of family communication scores.

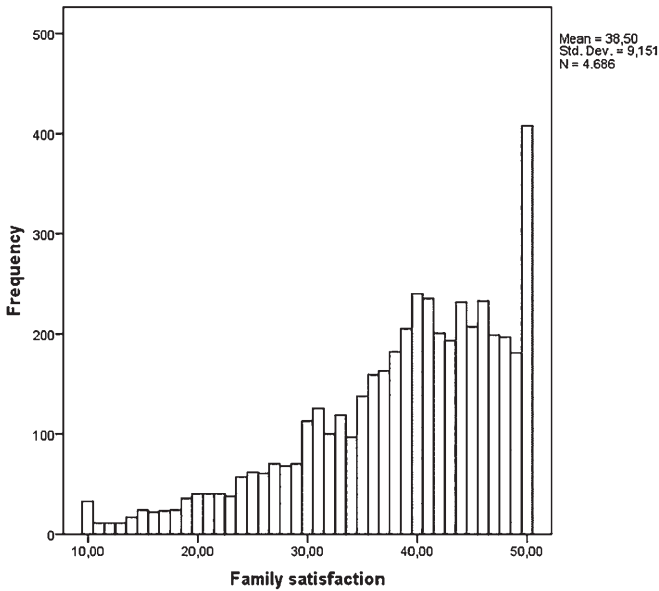


Figure 2. Distribution of family satisfaction scores.

Kruskal-Wallis test showed that there was a statistically significant difference in family communication between adolescents with different parental marital statuses ($\chi^2 = 108,061, p < 0,001$). Mean ranks are presented in Table 1. Post-hoc tests show that statistically significant differences were found among the following group pairs: other – one parent passed away, other – married and living together, married but not living together – one parent passed away, married but not living together – married and living together, divorced – one parent passed away, divorced – married and living together (Table 2). This shows that adolescents from families where the parents were married and living together or where one parent passed away perceived better family communication than adolescents from families where parents were married but not living together, divorced, or had other undefined status.

There was also a statistically significant difference in family satisfaction between adolescents with different parental marital status ($\chi^2 = 148,749, p < 0,001$). Mean ranks are presented in Table 1. Post-hoc tests show that statistically significant differences were found among the same group pairs as in family communication comparisons: other – one parent passed away, other – married and living together, married but not living together – one parent passed away, married but not living together – married and living together, divorced – one parent passed away, divorced – married and living together (Table 2). This once again shows that adolescents from families where the parents were married and living together or where one parent

passed away perceived better family satisfaction than adolescents from families where parents were married but not living together, divorced or had other undefined status.

Table 1. Mean ranks of family satisfaction and family communication in groups based on parents' marital status.

| Parents' marital status | Family satisfaction | | Family communication | |
|----------------------------------|---------------------|-----------|----------------------|-----------|
| | n | Mean Rank | n | Mean Rank |
| Married and living together | 3 669 | 2450,02 | 3 653 | 2424,29 |
| Married, but not living together | 109 | 1685,41 | 111 | 1792,45 |
| Extramarital union | 83 | 2149,70 | 83 | 2136,57 |
| Divorced | 632 | 1857,91 | 628 | 1922,31 |
| One parent passed away | 150 | 2383,31 | 149 | 2377,77 |
| Other | 31 | 1371,50 | 32 | 1492,81 |
| Total | 4 674 | | 4 656 | |

Table 2. Pairwise comparisons of groups based on parents' marital status according to family communication and family satisfaction.

| | Adj.Sig. | Married and living together | Married, but not living together | Extra-marital union | Divorced | One parent passed away | Other |
|----------------------|----------------------------------|-----------------------------|----------------------------------|---------------------|----------|------------------------|-------|
| Family communication | Married and living together | / | <0,001 | 0,803 | <0,001 | 1,000 | 0,001 |
| | Married, but not living together | <0,001 | / | 1,000 | 1,000 | 0,008 | 1,000 |
| | Extramarital union | 0,803 | 1,000 | / | 1,000 | 1,000 | 0,318 |
| | Divorced | <0,001 | 1,000 | 1,000 | / | 0,003 | 1,000 |
| | One parent passed away | 1,000 | 0,008 | 1,000 | 0,003 | / | 0,011 |
| | Other | 0,001 | 1,000 | 0,318 | 1,000 | 0,011 | / |

| | | | | | | | |
|---------------------|----------------------------------|--------|--------|-------|--------|--------|--------|
| Family satisfaction | Married and living together | / | <0,001 | 0,671 | <0,001 | 1,000 | <0,001 |
| | Married, but not living together | <0,001 | / | 0,271 | 1,000 | 0,001 | 1,000 |
| | Extramarital union | 0,671 | 0,271 | / | 0,956 | 1,000 | 0,091 |
| | Divorced | <0,001 | 1,000 | 0,956 | / | <0,001 | 0,747 |
| | One parent passed away | 1,000 | 0,001 | 1,000 | <0,001 | / | 0,002 |
| | Other | <0,001 | 1,000 | 0,091 | 0,747 | 0,002 | / |

*Significant differences are marked in bold. The significance level is 0,05.

Results of linear weighted least squares regression run to predict family satisfaction from family communication and parental marital status while exploring potential interaction between parental marital status and family communication adjusted for sex, age, and parental educational status are presented in Table 3. The selected set of variables statistically significantly predicted family satisfaction ($F(15, 4080) = 568,202, p < 0,001$). The model predicted 67,5% of the variance in family satisfaction. Family communication was a significant predictor with a relatively high beta coefficient (0,803), i.e., higher family communication is associated with higher family life satisfaction. Other included covariates that had a significant individual contribution were sex, paternal education status, having parents who are married but not living together, and having divorced parents. There were no significant interaction effects between parental marital status and family communication, which means that the relationship between family communication and family satisfaction can be observed as a strong one, independently of family type. While some family types based on parental marital status had a statistically significant association with family satisfaction, their beta coefficients were much smaller relative to the beta coefficient of family communication.

Table 3. Results of linear weighted least squares regression run to predict family satisfaction.

| Model summary | | | |
|--|---------------|-------------------|------------------|
| R | R Square | Adjusted R Square | |
| 0,822 | 0,676 | 0,675 | |
| Coefficients | | | |
| | B | Beta | Sig. |
| Married, but not living together | -1,877 | -0,027 | 0,003 |
| Extramarital union | -0,326 | -0,006 | 0,488 |
| Divorced | -1,135 | -0,041 | <0,001 |
| One parent passed away | -0,534 | -0,012 | 0,254 |
| Other parental marital status | -2,483 | -0,016 | 0,093 |
| Family communication | 0,844 | 0,803 | <0,001 |
| <i>Married, but not living together x Family communication</i> | -0,049 | -0,007 | 0,444 |
| <i>Extramarital union x Family communication</i> | 0,060 | 0,009 | 0,308 |
| <i>Divorced x Family communication</i> | 0,007 | 0,003 | 0,800 |
| <i>One parent passed away x Family communication</i> | 0,079 | 0,015 | 0,151 |
| <i>Other parental marital status x Family communication</i> | 0,039 | 0,003 | 0,748 |
| Sex | -0,368 | -0,022 | 0,015 |
| Age | -0,091 | -0,013 | 0,158 |
| Maternal education | -0,081 | -0,010 | 0,373 |
| Paternal education | -0,395 | -0,045 | 0,000 |

*Significant associations are marked in bold. The significance level is 0,05. Parental marital status was turned into dummy variables with the reference value being “married and living together”. Family communication was mean-centered before including it as a predictor in this model.

DISCUSSION

The results presented in this paper support the main hypothesis that in families with adolescents, family communication is strongly associated with family satisfaction, independently of parental marital status. Similar results were obtained by Akhlaq et al. (2013). This study showed that family communication was a highly significant predictor of adolescents' satisfaction with their family life in different family structures, supporting the finding that parents' communication skills can buffer the negative outcomes for children from single-parent families (Afifi & Mazur, 2021). Identifying parents with poor communication skills and improving them is therefore an important intervention that can protect children and adolescents regardless of family intactness. The findings of this study suggest that such interventions (strengthening parenting skills, especially communication skills, regardless of family structure) could also have an impact on adolescents' family life satisfaction. This would strengthen both important protective factors for positive and healthy adolescent development.

This finding provides further empirical support for the assumptions of the Circumplex model and contributes to strengthening the scientific evidence on which this theory of family systems is based. In the future development and implementation of the Circumplex model in family therapy and preventive work focused on building family resilience, some key practical and ethical aspects need to be considered and that are related to the diversity of family systems. Firstly, family satisfaction is a very important subjective indicator of family functioning. While the Circumplex model considers balanced scores of the cohesion and flexibility scales to be indicators of good family functioning, it is always important to keep in mind, that for some families in certain development periods that may not be the case. When using family satisfaction as an indicator of family functioning, family members' views are obtained on whether their current type of family system is considered functional and satisfactory to them. This is why more research efforts should in the future be dedicated to checking assumptions from the Circumplex model using family satisfaction as an outcome measure, as in this study. This is especially important for studies outside the United States of America, as in other countries there is a dearth of studies testing the hypotheses of the Circumplex model in general, with a currently greater focus on the validation of the instruments used by this model, such as FACES-IV (Olson et al., 2019). Secondly, checking the universality of model hypotheses is always necessary. Family researchers and practitioners have an ethical responsibility to take into consideration family diversity. It would be unfounded to create theoretical models that are subsequently used to inform intervention models, based solely on findings from a single country, culture, or type of family. This is in line with the prevailing opinion from the past decade that "one size does not fit all"

and that diversity, culture, and context should be taken seriously when planning the provision of quality mental health care (Alegria et al., 2010). While some research governance frameworks clearly state that the body of research evidence available to policymakers should reflect the diversity of the population (Department of Health, 2001), this doesn't mean that all aspects of diversity must be taken into consideration in every study. Allmark (2004), for example, warns that for quantitative research, careful analysis is needed to identify cases where certain elements of diversity may have significant effects and that sub-group analyses should be carried out only in those cases. Previous literature shows us that families from certain ethnic groups, religious orientations, and social classes could have specific modes of functioning. This study specifically focused on parental marital status as an indicator of family diversity in Croatia, as family structure in regards to parental marital status is still a highly discussed indicator of family functioning in both the professional and the wider public in Croatia. The results of this study have shown that family communication, as a key component in ensuring the balance between flexibility and cohesion, is highly associated with family satisfaction as perceived by adolescents and that this is regardless of parental marital status. These results, along with other future research based on the Circumplex model in Croatia could encourage wider and more universal use of the model in designing family interventions in Croatia. While this study has shown that there is no significant interaction between family communication and parental marital status, there are still other aspects of diversity that should potentially be investigated regarding the universality of this model, such as having same-sex parents, having foster and adoptive parents, the number of siblings or grandparents living in the household and other factors (Pearce et al., 2018).

Apart from the main finding, the results of this study have also shown that adolescents are generally satisfied with their family life. Studies from other cities in Croatia using the same family satisfaction scale on young people have shown similar results (Zloković et al., 2020). The results obtained in this study may indicate that the family environment of adolescents is generally protective, i.e. it contains various protective factors that can promote positive development or prevent adolescents from engaging in risky behaviors. This conclusion is possible based on research linking family life satisfaction to the quality of family communication, but also to many other family factors (Bjarnason et al., 2012; Olson, 2011; Rees, 2017; Suldo & Huebner, 2004).

This study shows that there are differences in perceived family satisfaction (as well as family communication, since the two are highly associated) between adolescents regarding the marital status of their parents. Adolescents from families where the parents were married and living together or where one parent passed away perceived better family satisfaction than adolescents from families where parents were married but not living together, divorced, or had other undefined status. The results regarding

the difference in adolescents from families where the parents were married and living together and those where the parents are divorced or still married but not living together are in line with previous research which shows that structurally intact families often function better than structurally non-intact families, which can be attributed to other factors that are unrelated to family structure: stronger, more intimate bond between members that is not interrupted by stressful events, such as divorce, less stress and conflict in general, higher parental presence in the family life with more time for quality family interactions, easier combating of harmful influences from other environments and more economic and social resources (Koerner & Fitzpatrick, 2021). The finding that adolescents from families where one parent has passed away don't differ from adolescents who live in structurally intact families is very interesting in the context of family resilience after the death of a parent and should be further investigated.

Considering that this study was not longitudinal we cannot ascertain if these differences in family satisfaction and family communication among adolescents in regards to their parental marital status are the consequence of family stressors such as divorce, or their cause, but they do once again point to the need to improve family communication in all kinds of families, universally, but with a special focus on families who have experienced significant stressors such as divorce. The finding that divorce and separation are significant predictors of family satisfaction on an individual level, but in a much smaller magnitude than family communication, supports this conclusion as well. Previous research has shown that communication between adolescents and parents is directly associated with not just the adolescents' family satisfaction but their life satisfaction in general, both directly and indirectly through their self-esteem and feelings of loneliness (Cava et al., 2014) and that effective communication with parents and step-parents is associated with adolescent family life satisfaction in remarried family households, specifically (Henry & Lovelace, 1995).

While this study was done on a large, representative sample of adolescents from the city of Zagreb and investigated new perspectives of the Circumplex model, the study did have some limitations. Firstly, considering that this is a cross-sectional study, only the existence of a strong association between family satisfaction and family communication regardless of parental marital status could be established, but no causal inferences could be made about the relationship between family satisfaction and family communication. Secondly, this study gathered data from adolescents and can therefore only base findings on the adolescents' perception of their families. Future studies should also include the perception of other family members to get a better understanding of the complex family system (Olson et al., 2019). A previous study using the same scale on a small sample in Croatia has shown that there are differences in the perception of family satisfaction between parents and their children

on certain items of the scale and that in general parents are more satisfied with their family life than their children (Zloković et al., 2020). However, a study by Ljubetić et al. (2020) on a small sample of Croatian adolescents and their parents has also shown that there is a significant association between the perception of family communication and family satisfaction among all the investigated members of the family (parents and children). Thirdly, this study was conducted in 2017, and in the years since then, there have been some significant changes and events in the world, such as the pandemic, and in Zagreb, such as the earthquake. In the context of the pandemic, some studies show an increase and improvement in family communication (e.g. Weissbourd et al., 2020, Öngören, 2021, Marks et al., 2023), while other studies find that open communication in the family has decreased during the pandemic (Hussong et al., 2022) or that family communication problems increase among some disadvantaged groups such as the poor, unemployed and young people (e.g. Senturk and Bozkurt, 2021). Given the inconsistent findings of recent studies examining family communication during the pandemic and the lack of studies examining the effects of natural disasters such as earthquakes on family communication, it would be of interest for future studies to examine whether these events have an impact on the relationship between family communication and family satisfaction in diverse families of adolescents.” Fourthly, this study used parental marital status as an indicator of family structure, which although useful, doesn’t give us specific information on the living arrangements in question and whether the parents have remarried. For future research, it would be interesting to examine whether the results differ using household composition as an indicator of family structure. Also, some of the answer options used in the study questionnaire regarding parental marital status were insufficiently specific which could have influenced the results, e.g. “married, but not living together” covers all kinds of situations of parental separation - those due to difficulties in the partner relationship but also those due to other reasons, such as work-related separation. The category „other“, according to specifications provided by the adolescents, encompasses a wide variety of situations, from those where the parents were never in a relationship or the father is unknown to those where the parents are living together, but are not in a relationship anymore.

Given the large number of different family structures we have been able to observe in recent years (nuclear families, stepfamilies, cohabiting couples outside of marriage, extended families, single-parent families, etc.) and the results of some studies dealing with the question of whether only the intact family is favourable for youth development (e.g., Bernardi & Boertien, 2017; Haugan & Myhr, 2019; Musick & Meier, 2010; Park & Lee, 2020; Shek & Leung, 2013), this study shows the importance of being aware of structural differences while emphasizing the great importance of family communication.

CONCLUSION

This study tested the assumption based on the Circumplex model that families with higher family satisfaction also have higher family communication levels. The study was done on a large, representative sample of adolescents from the Croatian city of Zagreb and has shown that, based on the perspective of adolescents and their understanding of these constructs, a strong association between family satisfaction and family communication exists. Importantly, this study has shown that there is no interaction effect between parental marital status and family communication regarding their association with family satisfaction. This means that the association between family satisfaction and family communication can potentially be considered universal when it comes to families with adolescents from Zagreb, Croatia.

As a study on various kinds of families that uses family satisfaction as an indicator of family functioning, the study is an important piece in the growing body of work contributing to the development of and providing empirical support to the Circumplex model. The findings of this study will also hopefully inspire other studies testing assumptions of the Circumplex models in diverse families in Croatia so that the use of this theoretical model in designing family interventions in Croatia can be wider and strongly evidence-based.

The findings also suggest that interventions aimed at improving family communication skills in adolescent families could benefit all families with adolescents and contribute to improved well-being and developmental outcomes for all adolescents. Universal family-based preventive interventions aimed at improving communication skills in parents and adolescents should therefore be available to all families of adolescents. Special attention should be given to selective family-based preventive interventions for family structures where poor communication is more common, such as families with divorced or separated parents of adolescents.

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Utjecaj obiteljske komunikacije na zadovoljstvo obiteljskim životom u adolescenata iz različitih obiteljskih struktura

SAŽETAK

Cirkumpleks model bračnih i obiteljskih sustava jedan je od najšire korištenih pristupa u istraživanjima obitelji. Ovaj model pretpostavlja da je obiteljska komunikacija važan element za postizanje pozitivnog obiteljskog funkcioniranja jer dozvoljava članovima obitelji da mijenjaju svoje razine fleksibilnosti i kohezije. Iako je ovaj teorijski pristup široko korišten i testiran, još uvijek postoje neke praznine u empirijskim dokazima univerzalnosti njegovih pretpostavki. Uzimajući u obzir da adolescenti danas žive u širokom rasponu obitelji, koje su vrlo raznolike s obzirom na njihovu strukturu, iz etičkog je stajališta važno provjeriti univerzalnost bilo kojeg teorijskog okvira koji se koristi u obiteljskim intervencijama. Ovim istraživanjem željelo se zato ispitati postoje li razlike u zadovoljstvu obiteljskim životom i obiteljskoj komunikaciji između obitelji različitih struktura te je li obiteljska komunikacija povezana sa zadovoljstvom obiteljskim životom u svim vrstama obitelji, koristeći podatke istraživanja provedenog u Zagrebu u Hrvatskoj (N = 4,821). Korištena je linearna regresija kako bi se procijenila povezanost zadovoljstva obitelji (zavisna varijabla) s obiteljskom komunikacijom i roditeljskim bračnim stanjem (prediktorske varijable) uz dodatno uključene interakcijskih efekata između obiteljske komunikacije i roditeljskog bračnog stanja. Rezultati ovog istraživanja pokazali su da su adolescenti općenito zadovoljni svojim obiteljskim životom te da postoje razlike u percipiranom obiteljskom zadovoljstvu i obiteljskoj komunikaciji među adolescentima s obzirom na bračni status njihovih roditelja. Rezultati predstavljeni u ovom radu podržavaju glavnu hipotezu da je u obiteljima s adolescentima obiteljska komunikacija snažno povezana s obiteljskim zadovoljstvom, neovisno o roditeljskom bračnom statusu. Ovi nalazi sugeriraju da intervencije usmjerene na poboljšanje vještina obiteljske komunikacije u obiteljima s adolescentima mogu pomoći svim obiteljima s adolescentima.

Ključne riječi: zadovoljstvo obiteljskim životom, adolescencija, obiteljska komunikacija, raznolikost obitelji, univerzalnost.

Supplementary table 1

Results of linear weighted least squares regression run to predict family satisfaction – correlation table

| | Family satisfaction | Married, but not living together | Extramartial union | Divorced | One parent passed away | Other parental marital status | Family communication | Married, but not living together x Family communication | Extramartial union x Family communication | Divorced x Family communication | One parent passed away x Family communication | Other parental marital status x Family communication | Sex | Age | Maternal education | Paternal education |
|---------------------|---------------------|----------------------------------|--------------------|----------|------------------------|-------------------------------|----------------------|---|---|---------------------------------|---|--|--------|--------|--------------------|--------------------|
| Pearson Correlation | 1,000 | -0,076 | -0,013 | -0,212 | 0,043 | -0,054 | 0,819 | 0,125 | 0,133 | 0,355 | 0,152 | 0,083 | -0,060 | -0,064 | -0,007 | -0,024 |
| | -0,076 | 1,000 | -0,020 | -0,040 | -0,024 | -0,007 | -0,065 | -0,176 | -0,005 | 0,010 | -0,013 | 0,002 | -0,003 | -0,007 | 0,010 | 0,003 |
| | -0,013 | -0,020 | 1,000 | -0,056 | -0,033 | -0,009 | -0,015 | 0,004 | 0,223 | 0,014 | -0,017 | 0,003 | 0,005 | 0,005 | 0,004 | -0,012 |
| | -0,212 | -0,040 | -0,056 | 1,000 | -0,065 | -0,018 | -0,216 | 0,007 | -0,012 | -0,250 | -0,035 | 0,007 | 0,032 | 0,019 | 0,001 | -0,037 |
| | 0,043 | -0,024 | -0,033 | -0,065 | 1,000 | -0,011 | 0,053 | 0,004 | -0,007 | 0,016 | 0,535 | 0,004 | 0,005 | 0,053 | -0,042 | -0,019 |
| | -0,049 | -0,007 | -0,009 | -0,018 | -0,011 | 1,000 | -0,048 | 0,001 | -0,002 | 0,005 | -0,006 | -0,369 | -0,005 | 0,002 | -0,010 | -0,011 |
| | 0,819 | -0,065 | -0,015 | -0,216 | 0,053 | -0,048 | 1,000 | 0,158 | 0,154 | 0,427 | 0,176 | 0,158 | 0,090 | -0,064 | 0,033 | 0,029 |
| | 0,125 | -0,176 | 0,004 | 0,007 | 0,004 | 0,001 | 0,158 | 1,000 | 0,001 | -0,002 | 0,002 | <0,001 | 0,001 | -0,015 | -0,001 | -0,009 |
| | 0,133 | -0,005 | 0,223 | -0,012 | -0,007 | -0,002 | 0,154 | 0,001 | 1,000 | 0,003 | -0,004 | 0,001 | -0,030 | 0,003 | 0,019 | 0,001 |
| | 0,355 | 0,010 | 0,014 | -0,250 | 0,016 | 0,005 | 0,427 | -0,002 | 0,003 | 1,000 | 0,009 | -0,002 | -0,026 | -0,028 | 0,021 | 0,019 |
| | 0,152 | -0,013 | -0,017 | -0,035 | 0,535 | -0,006 | 0,176 | 0,002 | -0,004 | 0,009 | 1,000 | 0,002 | <0,001 | 0,041 | -0,022 | -0,002 |
| | 0,083 | 0,002 | 0,003 | 0,007 | 0,004 | -0,369 | 0,090 | <0,001 | 0,001 | -0,002 | 0,002 | 0,002 | 1,000 | 0,003 | -0,006 | -0,017 |
| | -0,060 | -0,003 | 0,005 | 0,032 | 0,005 | -0,003 | -0,049 | 0,001 | -0,030 | -0,026 | <0,001 | <0,001 | -0,036 | 1,000 | -0,002 | -0,071 |
| | -0,064 | -0,007 | 0,005 | 0,019 | 0,053 | 0,002 | -0,064 | -0,015 | 0,003 | -0,028 | 0,041 | 0,003 | 0,003 | -0,002 | 1,000 | -0,029 |
| | -0,007 | 0,010 | 0,004 | 0,001 | -0,042 | -0,010 | 0,033 | -0,001 | 0,019 | 0,021 | -0,022 | -0,006 | -0,006 | -0,071 | -0,029 | 1,000 |
| | -0,024 | 0,003 | -0,012 | -0,037 | -0,019 | -0,011 | 0,029 | -0,009 | 0,001 | 0,019 | -0,002 | -0,017 | -0,052 | -0,020 | 0,572 | 1,000 |
| | - | <0,001 | 0,205 | <0,001 | 0,003 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 |
| <0,001 | - | 0,097 | 0,005 | 0,064 | 0,337 | <0,001 | <0,001 | 0,386 | 0,259 | 0,208 | 0,438 | 0,425 | 0,320 | 0,268 | 0,426 | |
| 0,205 | 0,097 | - | <0,001 | 0,018 | 0,281 | 0,168 | 0,168 | 0,410 | 0,187 | 0,132 | 0,415 | 0,368 | 0,367 | 0,407 | 0,215 | |
| <0,001 | 0,005 | <0,001 | <0,001 | <0,001 | 0,125 | <0,001 | <0,001 | 0,325 | 0,214 | 0,013 | 0,336 | 0,021 | 0,113 | 0,463 | 0,010 | |
| 0,003 | 0,064 | 0,018 | <0,001 | - | 0,249 | <0,001 | <0,001 | 0,395 | 0,320 | <0,001 | 0,401 | 0,382 | <0,001 | 0,004 | 0,118 | |
| <0,001 | 0,337 | 0,281 | 0,125 | 0,249 | - | 0,001 | 0,470 | 0,449 | 0,387 | 0,359 | <0,001 | 0,423 | 0,443 | 0,267 | 0,244 | |
| <0,001 | <0,001 | 0,168 | <0,001 | <0,001 | <0,001 | 0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | <0,001 | 0,018 | 0,030 | |
| <0,001 | <0,001 | 0,410 | 0,325 | 0,395 | 0,470 | <0,001 | <0,001 | 0,480 | 0,455 | 0,443 | 0,443 | 0,489 | 0,472 | 0,173 | 0,462 | |
| <0,001 | 0,386 | <0,001 | 0,214 | 0,320 | 0,449 | <0,001 | <0,001 | 0,480 | 0,421 | 0,401 | 0,401 | 0,481 | 0,026 | 0,434 | 0,106 | |
| <0,001 | 0,259 | 0,187 | <0,001 | 0,149 | 0,387 | <0,001 | <0,001 | 0,455 | 0,421 | - | 0,289 | 0,458 | 0,050 | 0,035 | 0,094 | |
| <0,001 | 0,208 | 0,132 | 0,013 | <0,001 | <0,001 | <0,001 | 0,443 | 0,401 | 0,401 | 0,289 | - | 0,447 | 0,489 | 0,004 | 0,458 | |
| <0,001 | 0,438 | 0,415 | 0,336 | 0,401 | 0,401 | <0,001 | 0,489 | 0,481 | 0,458 | 0,447 | 0,447 | - | 0,010 | 0,414 | 0,357 | |
| <0,001 | 0,425 | 0,368 | 0,021 | 0,382 | 0,423 | 0,001 | 0,472 | 0,026 | 0,050 | 0,489 | 0,489 | 0,010 | - | 0,459 | <0,001 | |
| <0,001 | 0,320 | 0,367 | 0,113 | <0,001 | 0,443 | <0,001 | 0,173 | 0,434 | 0,035 | 0,004 | 0,004 | 0,414 | 0,459 | - | 0,033 | |
| 0,321 | 0,268 | 0,407 | 0,463 | 0,004 | 0,267 | 0,018 | 0,462 | 0,106 | 0,094 | 0,077 | 0,357 | 0,357 | <0,001 | 0,033 | <0,001 | |
| 0,063 | 0,426 | 0,215 | 0,010 | 0,118 | 0,244 | 0,030 | 0,291 | 0,465 | 0,108 | 0,108 | 0,458 | 0,143 | <0,001 | 0,096 | <0,001 | |