

DO WE PERCEIVE EXPERIENCING MORE STRESS IN EARLY ADULTHOOD IF WE HAD PERCEIVED EXPERIENCING PARENTAL REJECTION IN CHILDHOOD?

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Abstract. *The article aims to present research on the relationship between perceived maternal and paternal acceptance-rejection, psychological adjustment, and perceived stress in early adulthood.*

The sample consists of 322 subjects between 20 and 40 years of age ($M=29.42$, $SD=6.41$). The sample is not gender-balanced (248 women (77%) and 74 men (23%), almost all of them Bulgarian (295, 91.6%; 1, 0.3% of Turkish origin and 26, 8.1% missing data), most of them university graduates (235, 73%), employed (239, 74.2%) and married or cohabiting with a partner (246, 76.4%).

Questionnaires for data collection: Parental Acceptance-Rejection Questionnaire, Adult, Short Form, both Mother and Father Version; Personality Assessment Questionnaire, Adult; Perceived Stress Scale, Personal Information Form.

The results show that both perceived maternal rejection and perceived paternal rejection are associated with perceived stress in early adulthood. The level of psychological maladjustment is strongly related to the levels of perceived stress as this correlation is higher for 20-year-olds ($r=0.703$, $p<0.01$) in comparison to 30-year-olds ($r=0.668$, $p<0.01$). Several regression models are presented regarding predictors of perceived stress. All the models with predictors of perceived maternal rejection, perceived paternal rejection, and/or psychological maladjustment are significant. Psychological maladjustment in itself is a good predictor of an individual's perceived stress. The percentages of explained variance vary between 44.3%-49.1%.

Most of our findings support the IPARTheory's postulates and are consistent with the results of other studies. The results are discussed, and new questions are raised.

Keywords: acceptance-rejection; psychological adjustment; perceived stress; young adulthood; IPARTheory.

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Stress is not a new topic, but it has become a significantly more critical issue in recent decades. Stress is not only related to people's mental health and associated with many health-related problems and diseases, but it also can significantly reduce the quality of one's life. Potentially stressful life events increase the risk for disease (Lazarus & Folkman, 1984). The perception of stress may influence the "pathogenesis of physical disease by causing negative affective states (e.g., feelings of anxiety and depression), which then exert direct effects on physiological processes or behavioural patterns that influence disease risk" (Cohen, Janicki-Deverts, & Miller, 2007). According to the American Psychological Association's Dictionary of Psychology (APA), "stress involves changes affecting nearly every system of the body, influencing how people feel and behave." (Stress, APA, 2022). It is both a physiological and/or psychological response to stressors. The World Health Organization (WHO) defines stress as "any type of change that causes physical, emotional or psychological strain." (Stress, WHO, 2021). The chronic stress we experience has multiple adverse effects on our lives. Decades ago, researchers described it as a public health issue (Graham, 1988). It has become even more critical amid the Covid-19 pandemic and current events.

It is important to denote that there are different levels of stress. In addition, everyone experiences stress to different degrees and responds to it in various ways. The latter is significant for one's quality of life and overall well-being. Indeed, the manner in which everyone responds to stress is a matter of how they interact with their environment. A critical point here is the interactions with attachment figures in one's life. Social support is one of the primary buffers to both stress and many other mental and health-related issues. Buchwald (2017) states: "An overwhelming amount of evidence showed that social support has effects on both, psychological and physical health. One remarkable result for physical health is, for example, that social support decreases the risk of dying from disease, suicide, or accidents by about the same

percentage as smoking does. Moreover, increased social support from family, friends or colleagues is related to decreased psychological distress. With help and support, people are psychologically better able to manage critical life events such as unemployment, divorce as well as everyday problems and daily hassles." Van Steenbergen and colleagues (2021) examine the effect of positive affect. They conclude that the positive affect we experience helps "to dampen the impact of adverse life events, facilitating healthy cognitive and emotional functioning after stress" for both acute and chronic stress in daily life.

Rohner's Interpersonal Acceptance-Rejection theory (IPARTheory) (former PARTheory) is a solid foundation for research on social support from attachment figures and human relationships in general. It is an evidence-based theory of socialisation and lifespan development that aims to explain and predict the significant consequences of interpersonal acceptance and rejection worldwide (Rohner, 2021). According to the theory, individuals may perceive acceptance or rejection by attachment figures (parents, intimate partners, et al.) in four different ways: (1) cold and unaffectionate, (2) hostile and aggressive, (3) indifferent and neglecting, (4) undifferentiated. Individuals who experience perceived rejection from their parents tend to view interpersonal relationships as untrustworthy, unsafe, hostile, and threatening. They may become hypervigilant and hypersensitive to rejection in other social relationships. "People who feel rejected often have problems with emotion regulation and are less emotionally stable than people who feel accepted, perhaps because anger, negative self-feelings, and the other consequences of perceived rejection tend to diminish rejected children's and adults' capacity to deal effectively with stress." (Khaleque & Rohner, 2011). Plenty of research (Khaleque & Ali, 2017) shows that perceived parental acceptance or rejection in childhood substantially influences adults' personality, psychological adjustment, and many other mental health-related issues. According to the IPARTheory Personality subtheory, parental rejection and

rejection by other attachment figures also leads to various personality dispositions, including anxiety, insecurity, and dependence. These also include those identified by Rohner such as anger, hostility, aggression, passive aggression, or psychological problems with the management of anger; emotional unresponsiveness; immature dependence or defensive independence depending on the form, frequency, duration, and intensity of perceived rejection; impaired self-esteem; impaired self-adequacy; emotional instability; and pessimistic worldview.

The relationship between parental warmth and an individual's psychological adjustment has been examined across ethnic groups and cultures. Numerous studies (Rohner, 2021; Rohner & Lansford, 2017; Khaleque & Ali, 2017; Ali et al., 2015; Khaleque & Rohner, 2011; Kim & Rohner, 2003; Lila, 2007) confirm the positive relationship between perceived maternal and paternal acceptance and one's psychological adjustment. Research has been conducted in over 22 countries on five continents. A meta-analysis based on 66 studies showed that the correlation between perceived maternal and paternal acceptance and children's psychological adjustment was significant in both childhood and adulthood across all examined cultures. The analysed relationships were much more potent in childhood and weakened with age but were still substantial in adulthood. Theoretically, the personality dispositions that compose one's psychological adjustment are expected to diverge because of the intense psychological distress produced by perceived rejection. Numerous studies have been conducted within the framework of the IPARTheory regarding the consequences of perceived rejection. Thus, it has been shown that a tendency to perceive rejection from parents and/or other attachment figures results in higher levels of psychological maladjustment. However, very few studies explore the relationship between perceived parental rejection and psychological adjustment to perceived stress. Such is the aim of our research.

This study is focused on early adulthood. According to various generalised periodisa-

tions (Kail, Cavanaugh, 2016), early adulthood is broadly defined as the period between 20 to 40 years. Lally & Valentine-French (2019), in their book, define the period from approximately 18 (the end of adolescence) until 40 to 45 (the beginning of middle adulthood). The period is categorised by the peak of physical capabilities, the emergence of more mature cognitive development, financial independence, and intimate relationships. It is a very healthy but demanding period. The age range is broad. Recently, developmental psychologists have divided it into two separate stages: emerging adulthood and early adulthood. Emerging adulthood is the period between late teens and early twenties, ages 18-25, although some researchers have included people up to age 29 in the definition (Lally & Valentine-French, 2019). Jeffrey Arnett (2000) argues that emerging adulthood is neither adolescence nor young adulthood. Individuals in this age range have left behind the relative dependency of childhood and adolescence but have not yet taken on the responsibilities of adulthood. It is also a period accompanied by increased stress levels - an age of identity exploration, instability, self-focus and feeling in-between; an age of possibilities. It is a time of separation from one's family, gaining independence, beginning professional employment, searching for a partner, forming more stable intimate relationships, making career choices, getting the required qualification, etc. Around the age of 30, a multitude of physical changes also begins to manifest. It is a time for establishing a career, setting a cohabitation and/or one's own family, parenthood, etc.

Based on this, in our study, we will split the sample (20-40 years old) into two groups: 20-year-olds (20-29 years old) and 30-year-olds (30-40 years old).

PURPOSE OF THE STUDY

The aim of our study is to investigate the relationships between the perceived parental (both maternal and paternal) rejection and control in childhood and psychological adjustment and perceived stress in early adulthood.

HYPOTHESES OF THE STUDY

- We expect a positive correlation between perceived maternal and paternal rejection and young adults' levels of perceived stress.
- We expect a positive correlation between perceived maternal and paternal rejection and young adults' psychological adjustment.
- Perceived parental rejection in childhood, both maternal and paternal, contributes to an individual's perceived stress levels.
- Psychological adjustment contributes to an individual's level of perceived stress.

MEASURES

For data collection, the following self-assessment questionnaires were utilised:

- **Parental Acceptance-Rejection Questionnaire/Control for Adults (PARQ/C, Adult), long-form, both Mother and Father Versions**, developed by R.Rohner (Rohner, 2005a). Each version consists of five scales measuring the subject's perceptions of remembered maternal and paternal warmth and affection, hostility and aggression, indifference and neglect, undifferentiated rejection, and behaviour control. In addition, the scores on the first four acceptance-rejection scales (warmth/affect scale reversed) were added to get an overall (total) measure of perceived rejection. We used the Bulgarian adaptation (Koltcheva & Borisova, 2014; Koltcheva & Djalev, 2017).
- **Personality Assessment Questionnaire, Adult (PAQ, Adult)**, author R.Rohner (Rohner & Khaleque, 2005). This is a self-report questionnaire. It measures seven personality dispositions: (1) hostility and aggression, including physical aggression, verbal aggression, passive aggression, and problems with the management of hostility and aggression, (2) dependence, (3) self-esteem,

(4) self-adequacy, (5) emotional responsiveness, (6) emotional stability, and (7) worldview. The seven PAQ scales constitute a composite measure of respondents' overall psychological adjustment. The measure is translated and adapted for the Bulgarian population (Koltcheva, 2017).

- **Perceived Stress Scale (PSS)**, developed by S.Cohen et al. (1983). It measures the degree to which situations in one's life are appraised as stressful. We used the Bulgarian version of the 14-item version of the scale (PSS-14) (Naydenova & Ilieva, 2006).

PROCEDURES

The study has been approved by the Ethical Committee of the Department of Cognitive Science and Psychology, New Bulgarian University.

The data are collected online via Google Forms. Self-report questionnaires are used in the study. The questionnaires are presented in the following order: Parental Acceptance-Rejection/Control Questionnaire, Mother Form, Personality Assessment Questionnaire, Parental Acceptance-Rejection Questionnaire, Father Form, Perceived Stress Scale, and Personal Information Form. The two versions of the Parental Acceptance-Rejection Questionnaire were separated to reduce response effects for both parents.

Participation is voluntary. The anonymity of participants is guaranteed.

PARTICIPANTS

A total of 322 subjects aged 20 to 40 ($M=29.42$, $SD=6.41$) participated in the study. The sample is not gender-balanced. More women took part (248; 77%) than men (74; 23%). Most of the subjects are Bulgarian (295; 91,60% of all), 1 of Turkish ethnicity (0,3%), and for 26 (8,1%), information is not available. Most of the participants hold a university degree (235, 73%), are employed (239, 74.2%) and are married or cohabiting with a partner (246, 76.4%) (Table 1.).

Table 1

Distribution of the participants in the study by gender, age, education, marital status, employment and ethnicity

		Number	Percent
Gender	Men	74	23%
	Women	248	77%
Age	Age 20-40 years	322	100%
Age Group	20-29	165	51.2%
	30-40	157	48.8%
Education	Basic level	1	0.3%
	Higher education	86	26.7%
	Bachelor degree	106	32.9%
	Master degree	118	36.6%
	Doctoral degree	11	3.4%
Marital Status	Married	163	50.6%
	Non married	138	42.9%
	Separated	9	2.8%
	Divorced	11	3.4%
	Widowed	1	0.3%
Employment	Employed full time	192	59.6%
	Employed part-time	34	10.6%
	Unemployed looking for a job	33	10.2%
	Unemployed, not looking for a job	20	6.2%
	Maternity leave	18	5.6%
	Self-employed	13	4.0%
	Student	11	3.4%
	Missing	1	0.3%
Ethnicity	Bulgarians	187	94.4%
	Turks	1	0.5%
	Missing	5	2.5%

In order to follow age differences in the sample, it is split into two age groups - 20-year-olds (20-29 years) and 30-year-olds (30-40 years) for some of the statistical analyses.

RESULTS

The mean scores for both perceived maternal ($X=43.39$, $SD=16.07$) and paternal ($X=47.71$, $SD=17.05$) rejection indicate that individuals in this sample experienced more acceptance than rejection from both parents. The cutting point between perceived

acceptance and rejection is 60. The psychological adjustment mean score ($X=130.39$; $SD=30.02$) also shows better psychological adjustment than psychological maladjustment of the participants (the cutting point is 157). The scores for perceived stress also fall into the average range ($X=25.65$; $SD=8.60$).

Means and standard deviations for perceived maternal and paternal rejection, psychological adjustment and perceived stress for the whole sample, including gender and age distributions, are presented in Table 2.

Table 2

Descriptive statistics of total scores for perceived parental rejection, psychological adjustment and perceived stress (N=322)

Total Score	Age Group	Sample		Men		Women	
		X	SD	X	SD	X	SD
Perceived Maternal Rejection	20-40	43.39	16.07	40.99	13.59	44.11	16.69
	20-29	43.41	16.32	39.85	11.84	44.32	17.19
	30-40	43.37	15.85	41.93	14.97	43.87	16.18
Perceived Paternal Rejection	20-40	47.71	17.05	46.94	17.87	47.94	16.84
	20-29	49.67	17.89	51.85	18.63	49.12	17.73
	30-40	45.66	15.92	42.68	16.24	46.62	15.76
Psychological Adjustment	20-40	130.39	30.02	126.31	31.04	131.61	29.67
	20-29	135.90	31.31	131.09	29.51	137.15	31.75
	30-40	124.61	27.54	122.25	32.08	125.41	25.90
Perceived Stress	20-40	25.65	8.60	22.93	9.34	26.46	8.21
	20-29	26.48	9.11	24.15	9.26	27.09	9.00
	30-40	24.78	7.96	21.90	9.40	25.76	7.19

Gender and age differences check out. There are no significant differences in the way men and women perceive their mother’s ($t_{(-7.32, 1.08)} = -1.459, p=0.145$) or their father’s ($t_{(-5.51, 3.53)} = -0.431, p=0.667$) attitudes towards them or their psychological adjustment ($t_{(-13.11, 2.51)} = -1.334, p=0.183$). There is however a significant difference regarding their perceived stress ($t_{(-5.74, -1.32)} = 3.144, p=0.002$). Women ($X=26.46; SD=8.20$) perceive more stress than men ($X=22.93; SD=9.34$). These results are closer to the ones stated by Naidevova & Ilieva (2006) in their article analysing Bulgarian adaptation. According to the data collected by them, the mean scores for women are 26.52 ($SD=7.80$) and 23.83 ($SD=7.99$) for men. These, however, are results of a study of university students. Further, no evidence for gender differences is provided.

The only age differences are regarding the self-perception of participants’ psychological adjustment ($t_{(4.81, 17.76)} = 3.430, p<0.001$) and perceived paternal rejection ($t_{(0.26, 7.75)} = 2.108, p=0.036$). 30-year-olds perceive themselves ($X=124.60; SD=27.53$) as slightly more psychologically adjusted compared to 20-year-olds ($X=135.89; SD=31.31$). In addition, 30-year-olds perceive less paternal rejection

($X=45.65; SD=15.92$) than 20-year-olds ($X=49.66; SD=17.89$). It is important to mention that, despite the significant differences in all the scores, psychological adjustment and perceived paternal rejection fall into the average range.

Additionally, we checked for differences with regard to marital status, employment status and level of education. There were no significant differences between single and married or cohabitating subjects. However, for perceived stress and psychological adjustment, there are significant differences depending on the participants’ educational level and employment status. Participants who only have a high school degree ($X=27.63; SD=9.30$) and are not employed ($X=27.31; SD=9.95$) perceive higher levels of stress than participants who hold a university degree (Bachelor’s or Master’s) ($X=24.91; SD=8.21$) and employed ones ($X=25.10; SD=8.03$). Participants who have a university degree ($X=127.28; SD=28.12$) and are employed ($X=127.99; SD=28.45$) perceive themselves as more psychologically adjusted than participants who have graduated from high school alone ($X=138.78; SD=33.38$) and are unemployed ($X=137.45; SD=33.53$) (Table 3.).

Table 3

Independent samples t-test for differences regarding gender, age groups, education level, employment status

Scale	Group Variable	Groups	Number of participants	Descriptives		t	p
				X	SD		
Perceived Stress	Gender	Men	73	22.93	9.34	-3.144	0.002
		Women	246	26.46	8.21		
	Education	High school	87	27.63	9.31	2.536	0.012
		University	233	24.92	8.22		
	Employment	Yes	239	25.11	8.03	-2.016	0.045
		No	82	27.32	9.95		
Psychological Adjustment	Age	20-29	163	135.90	31.31	3.430	<0.001
		30-40	156	124.61	27.54		
	Education	High school	87	138.78	33.38	3.092	0.002
		University	233	127.29	28.13		
	Employment	Yes	239	128.00	28.46	-2.477	0.014
		No	82	137.45	33.54		
Paternal Rejection	Age	20-29	163	49.67	17.89	2.108	0.036
		30-40	156	45.66	15.92		

Relationship between maternal and paternal rejection, psychological adjustment and perceived stress

The results show statistically significant positive correlations between the individuals' perceived stress and their perceived maternal rejection ($r=0.239$, $p<0.01$), perceived paternal rejection ($r=0.286$, $p<0.01$), and psychological adjustment ($r=0.691$, $p<0.01$)

(Table 4). This means that with the increase in perceived maternal rejection, perceived paternal rejection and psychological maladjustment, the levels of perceived stress also increase. The coefficients regarding parental rejection and perceived stress are weak, yet significant. The correlation between psychological maladjustment and perceived stress is very strong.

Table 4

Correlations between maternal and paternal rejection, psychological adjustment and perceived stress (N=319)

Total Score	Perceived Stress		
	20-40	20-29	30-40
Perceived Maternal Rejection	,239**	,226**	,257**
Perceived Paternal Rejection	,286**	,255**	,311**
Psychological Adjustment	,691**	,703**	,668**

** - $p<0,01$

The results for the age groups show an exciting trend: as age increases, the coefficients become higher. This trend is the opposite of the intercorrelation between perceived stress and psychological maladjustment. With age, the coefficient becomes lower but still at a substantial level.

Table 5 presents the correlations between psychological adjustment and perceived stress and the subscales for both perceived maternal and paternal rejection. As we can see, all these intercorrelations are also valid at the subscale level. The higher the perceived acceptance, the lower the perceived stress is, and the higher the level of psychological adjustment is. It is interesting to note that again with age the intercorrelations between perceived parental acceptance and psychological adjustment get lower (20-year-olds - $r = -0.385$; $p < 0.01$; 30-year-olds - $r = -0.288$; $p < 0.01$). Such is not the case for perceived stress. The correlation between perceived stress and paternal acceptance decreases with age (20-year-olds - $r = -0.204$; $p < 0.01$; 30-year-olds - $r = -0.233$;

$p < 0.01$) but that between perceived stress and maternal acceptance rises (20-year-olds - $r = -0.266$; $p < 0.01$; 30-year-olds - $r = -0.249$; $p < 0.01$).

What affects perceived stress more: perceived maternal rejection, perceived paternal rejection and/or psychological maladjustment?

Another key point in our study is to test different models regarding the contribution of perceived maternal rejection, perceived paternal rejection and/or psychological maladjustment to perceived stress.

The first model we tested is on the contribution of perceived maternal and paternal rejection. We performed linear regression analyses. The model is significant ($F(2, 312) = 17.521$, $p < 0.001$ and explains 9.5% of the total variance (Table 6.). The same model was tested separately for the two age groups, 20-year-olds and 30-year-olds. Both models are significant. The one for emerging adults ($F(2, 158) = 7.331$, $p < 0.001$), however,

Table 5

Correlations between the subscales of maternal and paternal rejection, psychological adjustment and perceived stress for the whole sample and by age groups (N=319)

Parent	Scales Age group	Psychological Adjustment			Perceived stress		
		20-40	20-29	30-40	20-40	20-29	30-40
Perceived Maternal Rejection	Warmth/Affection	-.324**	-.385**	-.288**	-.211**	-.204**	-.233**
	Hostility/Aggression	.372**	.337**	.412**	.244**	.195*	.300**
	Indifference/Neglect	.328**	.386**	.263**	.176**	.180*	.168*
	Undifferentiated Rejection	.383**	.411**	.361**	.211**	.234**	.183*
	Control	.216**	.184*	.267**	.147**	.128	.174*
Perceived Paternal Rejection	Warmth/Affection	-.281**	-.287**	-.254**	-.264**	-.266**	-.249**
	Hostility/Aggression	.159**	.170*	.119	.152**	.093	.218**
	Indifference/Neglect	.315**	.268**	.338**	.297**	.262**	.326**
	Undifferentiated Rejection	.303**	.296**	.283**	.230**	.206**	.245**
	Control	.076	.048	.126	.113*	.028	.232**

** - $p < 0.01$; * - $p < 0.05$

explains just 7.3% of the variance, while the one for 30-year-olds ($F(2, 151)=9.927$, $p<0.001$), 10.4% (Table 7.).

We tested only models for psychological maladjustment as a predictor of perceived stress. The models for the whole sample ($F(1, 320)=293.002$, $p<0.001$) (Table 8.) and also the ones per age groups (20-year-olds - $F(1, 163)=159.131$, $p<0.001$; 30-year-olds - $F(1, 155)=125.164$, $p<0.001$) are significant.

Psychological maladjustment contributes to the perceived stress to a much greater extent. The percentages of explained variation are 49.1% for 20-year-olds and 44.3% for 30-year-olds (Table 9.).

As we know from previous research (Rohner, 2021; Khaleque & Ali, 2017; Koltcheva, 2018; Koltcheva, 2019), perceived maternal rejection and perceived paternal rejection contribute to the level of psychological mal-

Table 6

Regression analysis: perceived maternal rejection and perceived paternal rejection as predictors for perceived stress (N=319)

Predictors	β	R ²	ΔR^2
Perceived maternal rejection	.225***	0.101	0.095
Perceived paternal rejection			

*** $p<0.001$

Table 7

Regression analysis: perceived maternal rejection and perceived paternal rejection as predictors for perceived stress (20-year-olds - N=162 30-year-olds - N=155)

Predictors	20-year-olds			30-year-olds		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Perceived maternal rejection	.196***	0.085	0.073	.243***	0.116	0.104
Perceived paternal rejection						

*** $p<0.001$

Table 8

Regression analysis: psychological maladjustment as a predictor for perceived stress (N=322)

Predictor	β	R ²	ΔR^2
Psychological Maladjustment	.691***	0.478	0.476

*** $p<0.001$

Table 9

Regression analysis: psychological maladjustment as a predictor for perceived stress (20-year-olds - N=165; 30-year-olds - N=157)

Predictors	20-year-olds			30-year-olds		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Psychological Maladjustment	.703***	0.494	0.491	.668***	0.447	0.443

*** $p<0.001$

adjustment. The models in the current study confirm these findings. Perceived maternal rejection and perceived paternal rejection are predictors of psychological maladjustment. For the whole sample ($F(2, 312)=37.420, p<0.001$), the explained variation is 18.8% (Table 10.). The percentage for emerging adults ($F(2, 158)=20.763, p<0.001$) - 19.8% is a bit higher than that for the 30-year-olds ($F(2, 151)=16.067, p<0.001$) - 16.5% (Table 11.).

It seems that the level of psychological maladjustment contributes to a very great extent. Therefore, we checked the contribution of all three variables. As expected, the percentages of explained variation are very high for the model for the whole sample ($F(3, 311)=98.561, p<0.001$), which is 47.6 % (Table 12.). It is a bit higher for the 20-year-olds ($F(3, 157)=52.298, p<0.001$) – 49% and a bit lower for the 30-year-olds ($F(3, 150)=44.508, p<0.001$) 46% but still relatively high (Table 13.).

Table 10

Regression analysis: perceived maternal rejection and perceived paternal rejection as predictors of psychological maladjustment (N=316)

Predictors	β	R ²	ΔR^2
Perceived maternal rejection Perceived paternal rejection	.197***	0.193	0.188

*** p<0.001

Table 11

Regression analysis: perceived maternal rejection and perceived paternal rejection as predictors of psychological maladjustment (20-year-olds – N=160; 30-year-olds - N=153)

Predictors	20-year-olds			30-year-olds		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Perceived maternal rejection Perceived paternal rejection	.173***	0.208	0.198	.182***	0.175	0.165

*** p<0.001

Table 12

Regression analysis: perceived maternal rejection, perceived paternal rejection and psychological maladjustment as predictors of perceived stress (N=314)

Predictors	β	R ²	ΔR^2
Perceived maternal rejection Perceived paternal rejection Psychological Adjustment	.692***	0.487	0.482

*** p<0.001

Table 13

Regression analysis: perceived maternal rejection, perceived paternal rejection and psychological maladjustment as predictors of perceived stress (20-year-olds – N=162; 30-year-olds - N=155)

Predictors	20-year-olds			30-year-olds		
	β	R ²	ΔR^2	β	R ²	ΔR^2
Perceived maternal rejection Perceived paternal rejection Psychological Adjustment	.724***	0.500	0.490	.656***	0.471	0.460

*** p<0.001

DISCUSSION

The aim of our study was to investigate the relationships between perceived parental (both maternal and paternal) rejection and control in childhood, and psychological adjustment and perceived stress in early adulthood. When commenting on the results, we must state that our sample is not gender-balanced and that most participants hold a university degree, are employed and married or cohabit with a partner. We did not control for these variables because, in the current article, we focus on age differences.

Overall, the participants in our sample perceive both their parents as accepting and loving and self-evaluate themselves as psychologically adjusted. These results are consistent with results from other studies (Khaleque & Ali, 2017).

One main focus of our study is exploring the relationship between perceived maternal and paternal rejection and young adults' psychological adjustment and perceived stress. Research findings from many countries (Rohner, 2021; Khaleque & Rohner, 2002; Khaleque & Rohner, 2012a; Khaleque & Rohner, 2012b; Khaleque, 2013; Khaleque, 2015; Ali et al., 2015; Khaleque, 2016), including research studies from Bulgaria (Koltcheva, 2018; Koltcheva, 2019; Baitosheva, 2021) confirm the IPARTheory postulate that perceived parental acceptance in childhood is associated with an individual's psychological adjustment in early adulthood. The results provide evidence that perceived rejection is associated with psychological maladjustment. When individuals perceive their parents as rejecting, their emotional need for positive reactions from parents is not met, which is more likely to result in maladaptive psychological functioning (Rohner, 2016). According to Rohner (2021), someone experiencing interpersonal rejection is likely to "feel ever-increasing anger, resentment, and other destructive emotions that may become intensely painful." Some of the personality dispositions identified by Rohner (self-esteem, emotional responsiveness, worldview, etc.) are essential elements of an individual's mental represen-

tations of themselves. The concept of mental representation refers to "an individual's implicit conception of existence, including the conception of things that individuals take for granted about themselves and others" (Rohner, 2005b). Mental representations, once created, might shape in a distorted manner an individual's perception of the self, their relationships with others, and the situations they face. Rejected children and adults often construct mental images of personal relationships as being unpredictable, untrustworthy, and hurtful (Zimmer-Gembeck et al., 2014). This also affects perceived stress and stress coping. According to Rohner & Lansford (2017), "Anger, negative self-feelings, and the other consequences of perceived rejection tend to diminish rejected persons' capacity to deal effectively with stress." The perception of rejection by attachment figures (mother/father) tends to influence an individual's emotional regulation. They might become emotionally upset when confronted with stressful situations.

Our data show significant correlations between perceived maternal and perceived paternal rejection and perceived stress. However, these coefficients are much lower than the ones between an individual's psychological maladjustment and perceived stress. As we know from previous research (Rohner, 2021), the intercorrelations of perceived maternal and paternal rejection in childhood with psychological adjustment in adulthood get lower with age. This is because the assessment of perceived maternal and paternal rejection relies on memories that change with time. On the other hand, the self-assessment of psychological maladjustment refers to one's current state, the same as perceived stress. That is why the correlation between these two variables is much higher. It is not surprising that an individual's psychological adjustment is an important predictor of their levels of perceived stress. The models for perceived maternal and paternal rejection in childhood as predictors of perceived stress are significant. The percentages of explained variation are not very high, but in the equation of explained variation. A much better predictor, however, is

an individual's psychological maladjustment. The explained variance in the general model, as well as in the model split per age group, is between 44.3%-49.1%. These percentages are slightly higher when predictors are input as both perceived parental rejection and psychological maladjustment: between 46%-49%. We can speculate that there is a tendency for an accumulated effect. However, more analyses are needed in order to better understand these relationships.

The present study has some limitations. First, only self-assessment questionnaires to examine the variables are used. Second, the participants may have lower levels of psychological adjustment due to other factors, e.g., victimisation by peers in school, problems with teachers, and other adverse environmental factors (Felix & McMahon, 2006). Third, as was already mentioned, the sample is not balanced by gender and age. Fourth, it is not representative; thus, no general conclusions can be drawn. Another drawback is the retrospective nature of the questionnaires assessing perceived maternal and paternal rejection. That raises more and more questions: what do we remember about our relationships with our parents when we are in our 20s, 30s, 40s or older, how do relationships with our parents change over time, and how do relationships with our parents change as we change and transition into new social roles (e.g., the role of a parent), how does the subjective assessment of our relationships with our parents change through the lens of relationships with other significant figures in our lives (e.g., intimate partner), etc.? These questions pose directions for future research. Social support is identified as one of the primary buffers for stress (Buchwald, 2017). Maybe social support from a spouse, an intimate partner or a close friend might better predict perceived stress? The World Health Organization promotes connecting with others as a coping strategy for stress (Stress, WHO, 2021). Van Steenbergen et al. (2021) emphasise the positive effect and its influence buffering effect on stress. Maybe more variables revealing the current state of the participants might shed more light on the mediating factors.

This is a correlational study. Therefore, we cannot make conclusions about whether perceived maternal and/or paternal rejection leads to psychological maladjustment, nor can we indicate the likelihood that participants who have poor psychological adjustment might perceive their parents as rejecting. In addition, we must consider the many developmental changes that occur over time. Rohner & Britner (2002) report longitudinal evidence indicating that parental rejection tends to precede the development of a range of mental health problems, such as depression, behavioural and social problems, and substance abuse.

According to the longest-running longitudinal study of human development (Harvard Study of Adult Development, Harvard Medical School), close relationships are the ones that matter most in life, make people happy, protect people from adversity, and slow mental and physical decline (Waldinger, 2016). These are strong arguments for continuing the research in this direction. Despite the mentioned limitations, our study provides empirical evidence that can be a base for future research.

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