

# RODITELJSKE ATRIBUCIJE UZROKA DJETETOVOG RAZVOJNOG JEZIČNOG POREMEĆAJA I NJIHOV ODNOS S MENTALNIM ZDRAVLJEM RODITELJA

## PARENTAL CAUSAL ATTRIBUTIONS FOR THEIR CHILD'S DEVELOPMENTAL LANGUAGE DISORDER AND THE RELATIONSHIP BETWEEN CAUSAL ATTRIBUTIONS AND PARENTAL MENTAL HEALTH

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**Sažetak:** Prethodna istraživanja pokazala su da su uzročne atribucije, odnosno zaključci koje ljudi donose o uzrocima nekog ishoda (Hewstone i Fincham, 2001), povezane s prilagodbom roditelja na djetetovu bolest ili razvojne poremećaje, no rezultati nisu jednoznačni. Provedeno istraživanje imalo je dva cilja: 1) opisati kojim uzrocima roditelji objašnjavaju razvojni jezični poremećaj (RJP) kod svoga djeteta i kako te uzroke procjenjuju na dimenzijama mjesta uzročnosti, podložnosti osobnoj kontroli i stabilnosti te 2) ispitati odnos atribucija uzroka djetetovog RJP-a i mentalnog zdravlja roditelja te provjeriti razlikuju li se odnosi ovisno o vremenu koje je prošlo od dijagnoze. U istraživanju je sudjelovalo 319 bioloških roditelja (94.2 % majki, prosječne dobi  $M = 39.71$  godina,  $SD = 5.09$ ) čijoj je djeci dijagnosticiran RJP kao primarna dijagnoza. Sudionici su ispunili online anketni upitnik koji se sastojao od demografskih pitanja, Revidirane skale uzročnih dimenzija (CDS-II; McAuley i sur., 1992) i Skale depresivnosti, anksioznosti i stresa (DASS-21; Lovibond i Lovibond, 1995). Rezultati su pokazali da roditelji djetetov RJP u najvećoj mjeri pripisuju genetskim čimbenicima te različitim prenatalnim i perinatalnim rizičnim čimbenicima. Za sve kategorije uzroka mjesto uzročnosti u prosjeku su procjenjivali vanjskim. Izloženost ekranima te neadekvatan jezični unos i reakcije roditelja procijenjeni su kao uzroci koji su najpodložniji osobnoj kontroli, a najstabilnijima su procijenjeni genetski čimbenici. Provedbom linearnog strukturalnog modeliranja dobiveni su značajni učinci

**Abstract:** Previous studies have found that causal attributions, i.e., inferences people make about causes of an outcome (Hewstone & Fincham, 2001), are related to parents' adjustment to their children's illness or developmental disorders, but these results are inconsistent. The present study had two aims: 1) to describe the causes that parents attribute to their child's developmental language disorder (DLD) and how they rate these causes on the dimensions of locus, personal controllability, and stability, and 2) to examine the relationship between causal attributions for the child's DLD and parents' mental health, as well as to determine whether these relationships differ as a function of time since diagnosis. Participants included 319 biological parents (94.2% mothers, mean age  $M = 39.71$  years,  $SD = 5.09$ ) whose children had been diagnosed with DLD as their primary diagnosis. They completed an online questionnaire consisting of demographic questions, the Revised Causal Dimensions Scale (CDS-II; McAuley et al., 1992), and the Depression, Anxiety, and Stress Scale (DASS-21; Lovibond & Lovibond, 1995). The results showed that the parents mostly attributed their child's DLD to genetic factors, as well as various prenatal and perinatal risk factors. In all categories, participants rated the locus of the cause as external, on average. Screen exposure, as well as inadequate language input and parental reactions were rated as the most personally controllable causes, while genetic factors were considered as the most stable causes. Using structural equation modelling, significant effects of perceived locus and personal controllability of the cause on parents'

*percipiranog mjesta uzročnosti i podložnosti uzroka osobnoj kontroli na negativna emocionalna stanja roditelja, ali samo na nižim razinama vremena proteklog od djetetove dijagnoze, pri čemu je za mjesto uzročnosti dobiven negativan učinak, a za osobnu kontrolu pozitivan. Za percipiranu stabilnost uzroka djetetova poremećaja dobiven je pozitivan učinak koji je bio značajan i na višim razinama vremena proteklog od postavljanja djetetove dijagnoze. Raspravljene su teorijske i praktične implikacije dobivenih rezultata.*

**ključne riječi:** atribucije uzroka djetetovog razvojnog poremećaja, mentalno zdravlje roditelja, razvojni jezični poremećaj, roditelji, vrijeme proteklo od dijagnoze

## UVOD

S obzirom na to da su se pokazale povezanima s različitim emocionalnim reakcijama, stavovima i ponašanjem (vidi npr. Barrowclough i sur., 1994; Boyle, 2014; Greitemeyer i Rudolph, 2003; Haider-Markel i Joslyn, 2008; Juvonen, 1991; O'Toole i Sahar, 2014; Schwarzer i Weiner, 1991; Weiner, 1979), uzročne atribucije jedan su od najistraživanijih fenomena u području socijalne psihologije. Uzročne atribucije odnose se na procese zaključivanja kojima pojedinci pripisuju uzroke nekom ishodu (Hewstone i Fincham, 2001). Pripisani uzroci ne moraju odgovarati stvarnim uzrocima ishoda, dakle radi se o percipiranoj uzročnosti. Začetnik je atribucijskog pristupa Heider (1958), koji uzročne atribucije dijeli na unutarnje, vezane uz pojedinca, i vanjske, vezane uz situaciju. Jedno od područja u kojemu su atribucije uzroka istraživane jest prilagodba pojedinaca na kroničnu bolest ili nesreću, međutim, rezultati su nejednoznačni. Primjerice, neka istraživanja ukazuju na to da je bolja prilagodba povezana s pripisivanjem bolesti ili nesreće vanjskim uzrocima, primjerice, situacijskim okolnostima, sudbini / Božjoj volji ili drugoj osobi (npr. James i Kristiansen, 1995; Kiecolt-Glaser i Williams, 1987). S druge strane, neki su autori pronašli bolju prilagodbu kod pojedinaca koji su nepoželjan ishod pripisivali vlastitom ponašanju (npr. Bulman i Wortman, 1977), dok se okrivljavanje drugih pokazalo negativno povezano s fizičkim zdravljem i psihičkim blagostanjem (za pregled vidi Tennen i Affleck, 1990).

Odnos uzročnih atribucija i prilagodbe ispitivao se i kod roditelja djece s malignim ili drugim kroničnim bolestima te djece s razvojnim pore-

*negative emotional states were observed only at lower levels of time since the child's diagnosis: locus had a negative effect and personal controllability had a positive effect on parental emotional states. A positive effect was found for the perceived stability of the cause of the child's disorder, which was also significant at higher levels of time since the child's diagnosis. The theoretical and practical implications of the results were discussed.*

**Keywords:** causal attributions for the child's developmental disorder, parental mental health, developmental language disorder, parents, time since diagnosis

## INTRODUCTION

Causal attributions are one of the most researched phenomena in social psychology, given that they are associated with various emotional reactions, attitudes and behaviours (see e.g., Barrowclough et al., 1994; Boyle, 2014; Greitemeyer & Rudolph, 2003; Haider-Markel & Joslyn, 2008; Juvonen, 1991; O'Toole & Sahar, 2014; Schwarzer & Weiner, 1991; Weiner, 1979). Causal attributions refer to inferential processes by which individuals attribute causes to an outcome (Hewstone & Fincham, 2001). These attributed causes do not necessarily correspond to the actual causes of the outcome, i.e., it corresponds to the perceived causality. The founder of the attribution approach was Heider (1958), who categorised causal attributions into internal, related to the person, and external, based on the situation. One of the areas in which causal attributions have been studied is people's adjustment to chronic illness or accidents, but the results have been inconsistent. Some studies suggest that better adjustment is associated with attributing external causes, e.g., environmental causes, fate/ God's will, or blaming others (e.g., James & Kristiansen, 1995; Kiecolt-Glaser & Williams, 1987). In contrast, some authors have found better adjustment in individuals who attributed a negative outcome to their own behaviour (e.g., Bulman & Wortman, 1977), whereas blaming others was negatively associated with physical health and psychological well-being (for a review, see Tennen & Affleck, 1990).

The relationship between causal attributions and adjustment has also been studied in parents

mećajima, no rezultati su također nejednoznačni. Neka istraživanja ukazuju na uspješniju prilagodbu roditelja koji su djetetovu kroničnu ili malignu bolest pripisivali vanjskim uzrocima, tj. okolinskim čimbenicima (izloženosti virusima, zagađenju), stresnim životnim okolnostima, ozljedi ili lošoj sudbini (npr. Affleck i sur., 1985; Bearison i sur., 1993). S druge strane, u istraživanju Halla i suradnika (1997), više negativnih emocija i roditeljskog stresa doživljavali su roditelji koji su za rođenje djeteta s Downovim sindromom okrivljavali druge. Sukladno tome, Shapp i suradnici (1992) pronašli su višu razinu osobnog blagostanja kod očeva koji djetetovu dijagnozu nisu pripisivali lošoj sudbini ili drugim ljudima. Na povezanost unutarnjih uzročnih atribucija i bolje prilagodbe roditelja ukazuje i istraživanje Tennena i suradnika (1986). Ovi su autori pronašli pozitivnije raspoloženje kod majki koje su uzrok djetetove bolesti vidjele u vlastitom ponašanju. Pretpostavka je da su takve uzročne atribucije povezane s vjerovanjem majki da mogu spriječiti slične ishode u budućnosti. U longitudinalnom istraživanju Mickelson i suradnika (1999) jedna vanjska uzročna atribucija (okolinski čimbenici) te dvije unutarnje (nasljedni čimbenici i stres tijekom trudnoće) bile su povezane sa slabijom prilagodbom roditelja u drugom valu istraživanja. S druge strane, vanjska uzročna atribucija sudbine / Božje volje predviđala je smanjenje depresivnosti tijekom vremena.

Glavni je nedostatak većine prethodnih istraživanja pristup usmjeren na određivanje točnih uzroka koje pojedinci pripisuju nepoželjnom ishodu, ne uzimajući pritom u obzir kako te uzroke doživljavaju. Prema Weinerovoj (1985) atribucijskoj teoriji, svi uzroci mogu se klasificirati na tri dimenzije: mjestu uzročnosti, podložnosti kontroli te stabilnosti. Sve su tri dimenzije kontinuumi s dva suprotna pola. Mjesto uzročnosti odnosi se na izvor uzroka, koji može biti unutarnji ili vanjski. Unutarnji uzroci oni su koji se vežu uz pojedinca koji je doživio neki ishod (to primjerice mogu biti njegove osobine ličnosti, kognitivne sposobnosti ili osobno ponašanje koje je dovelo do ishoda). Vanjski su uzroci oni koji proizlaze iz okoline, nekih situacijskih okolnosti ili ponašanja drugih ljudi. Podložnost kontroli odnosi se na moguć-

of children with cancer or other chronic illnesses and developmental disorders, but the results in this case have also been inconclusive. Some studies suggest more successful adjustment in parents who attributed their child's chronic illness or cancer to external causes, i.e., environmental factors (viral exposure, pollution), stressful life circumstances, injury, or bad fate (e.g., Affleck et al., 1985; Bearison et al., 1993). On the other hand, in a study by Hall et al. (1997), parents who blamed others for the birth of a child with Down Syndrome experienced more negative emotions and parental stress. Accordingly, Shapp et al. (1992) found a higher level of personal well-being in fathers who did not attribute their child's diagnosis to bad fate or other people. Research by Tennen et al. (1986) also pointed to the link between internal causal attributions and better parental adjustment. These authors found a more positive mood in mothers who saw the cause of their child's illness in their own behaviour. The assumption is that such causal attributions are related to the mothers' belief that they can prevent similar events in the future. In a longitudinal study conducted by Mickelson et al. (1999), one external (environmental factors) and two internal causal attributions (hereditary factors and stress during pregnancy) were associated with poorer parental adjustment in the second wave of the study. In contrast, the external causal attribution of fate/ God's will predicted a decline in depression over time.

The main limitation of most early studies was the focus on identifying the exact causes that people attribute to a negative outcome without taking into account how they perceived these causes. According to Weiner's (1985) attributional theory, all causes can be categorised along three dimensions: locus of causality, controllability, and stability. All three dimensions are continuums with two opposite poles. The locus of causality refers to the source of the cause, which can be internal or external. Internal causes are those related to the person who experienced the outcome (e.g., their personality traits, cognitive abilities, or personal behaviours that led to the outcome). External causes are those that arise from the environment, situational circumstances, or the behaviour of oth-

nost voljnog utjecanja na uzrok, odnosno u kojoj je mjeri uzrok nekog ishoda pod kontrolom pojedinca, pri čemu uzroci variraju od nepodložnih kontroli do podložnih kontroli (npr., pušenje kao uzrok raka pluća percipira se podložnijim kontroli nego genetski uzrok). Poslije je dimenzija podložnosti kontroli podijeljena na osobnu kontrolu, što se odnosi na mogućnost da pojedinac koji doživljava neki ishod kontrolira uzrok tog ishoda i utječe na njega, te vanjsku kontrolu, što se odnosi na mogućnost da drugi ljudi iz pojedinčeve okoline kontroliraju uzrok ishoda (vidi McAuley i sur., 1992). Podložnost osobnoj kontroli obično se veže uz unutarnje uzroke, dok se podložnost vanjskoj kontroli veže uz vanjske uzroke. Dimenzija stabilnosti odnosi se na postojanost uzroka tijekom vremena, pri čemu uzroci mogu varirati od stabilnih i nepromjenjivih do nestabilnih i promjenjivih. Stabilnost i podložnost uzroka kontroli obično su povezane, što znači da su stabilniji uzroci obično manje podložni kontroli.

Primjerice, niže kognitivne sposobnosti kao pripisani uzrok neuspjeha na ispitu vjerojatnije će biti percipirane kao uzrok s unutarnjim mjestom uzročnosti (veže se uz studenta koji je doživio neuspjeh), niskom razinom podložnosti i osobnoj i vanjskoj kontroli (mogućnost je utjecanja na nečiju razinu kognitivnih sposobnosti niska), te visokom razinom stabilnosti (nečija razina kognitivnih sposobnosti ostaje ista tijekom vremena). S druge strane, nedostatak truda kao uzrok istog ishoda također će biti percipiran kao unutarnji uzrok (isto proizlazi iz pojedinca koji je doživio neuspjeh), ali podložan osobnoj kontroli (pojedinac može utjecati na to koliko truda će uložiti u neku aktivnost) te nestabilan (koliko truda će netko uložiti u učenje može se mijenjati tijekom vremena). Konačno, težina ispita kao uzrok neuspjeha vjerojatnije će biti percipirana kao uzrok s vanjskim mjestom uzročnosti (ne veže se uz pojedinca koji je doživio neuspjeh), niskom razinom podložnosti osobnoj kontroli (student ne može utjecati na težinu ispita), ali visokom razinom podložnosti vanjskoj kontroli (profesor može utjecati) te niskom razinom stabilnosti (težina ispita može se mijenjati tijekom vremena). Pritom treba naglasiti da različiti pojedinci isti uzrok mogu različito doživljavati u

er people. Controllability refers to the possibility of intentionally influencing the cause, i.e., the extent to which the cause of an outcome is under the control of the individual, ranging from uncontrollable to controllable (e.g., smoking as a cause of lung cancer is considered more controllable than a genetic cause). Later, the dimension of controllability was subdivided into personal controllability, which refers to the possibility that the cause of an outcome is controlled and influenced by the person experiencing it, and external controllability, which refers to the possibility that the cause of an outcome is controlled by others in the environment (see McAuley et al., 1992). Personal controllability is usually associated with internal causes, whereas external controllability is associated with external causes. The stability dimension refers to the permanence of causes over time, with causes ranging from stable and unchanging to unstable and changing. Stability and controllability of the cause are usually linked, which means that more stable causes are usually less controllable.

For example, lower cognitive ability as a cause of failure in an exam tends to be perceived as a cause with an internal locus (the cause lies with the student who failed), low personal and external controllability (the possibility to influence the level of one's cognitive ability is low), and high stability (the level of one's cognitive ability remains the same over time). On the other hand, lack of effort as a cause of the same outcome is also perceived as an internal cause (the cause also lies with the person who failed the exam), but personally controllable (the person can influence how much effort they put into an activity) and unstable (how much effort someone puts into studying can change over time). Finally, exam difficulty as a cause of failure tends to be perceived as a cause with an external locus (the cause does not lie with the person who failed), low personal controllability (the student cannot influence the difficulty of the exam), but high external controllability (the professor can influence the difficulty of the exam) and low stability (the difficulty of the exam can change over time). It should be emphasised that different people may perceive the same cause differently in terms of the locus of causality, controllability, and



terminima mjesta uzročnosti, podložnosti kontroli i stabilnosti. Ova temeljna svojstva uzroka, a ne sami uzroci, određuju kognitivne, afektivne i ponašajne posljedice. Primjerice, dimenzija mjesta uzročnosti pokazala se povezanom sa samopoštovanjem, dimenzija kontrole s osjećajima srama i zahvalnosti, a dimenzija stabilnosti s osjećajem beznađa (Weiner, 1985). Dakle, reakcije dvoje pojedinaca koji istom ishodu pripisuju isti uzrok razlikovat će se ovisno tome kako taj uzrok pozicioniraju na dimenzijama mjesta uzročnosti, podložnosti kontroli i stabilnosti.

Prijašnja istraživanja prilagodbe na nepoželjne ishode većinom su bila usmjerena na povezivanje prilagodbe s unutarnjim nasuprot vanjskim uzročnim atribucijama. Iako se uz vanjske uzroke u pravilu veže niža osobna kontrola, unutarnji uzroci mogu se razlikovati s obzirom na stabilnost i podložnost osobnoj kontroli. Istraživanje koje su proveli Brown i Siegel (1988) ukazuje na veću važnost dimenzije osobne kontrole od mjesta uzročnosti u objašnjavanju odnosa uzročnih atribucija i prilagodbe na velike stresne životne događaje. Njihovi su rezultati pokazali povezanost unutarnjih, nepodložnih osobnoj kontroli i stabilnih uzročnih atribucija s porastom depresivnosti devet mjeseci poslije, dok su unutarnje uzročne atribucije podložne osobnoj kontroli bile negativno povezane s depresivnošću. Slično tome, Boyle (2016) je pronašao da je pripisivanje vlastitog mucanja uzrocima koji su percipirani kao podložni osobnoj kontroli i nestabilni povezano s boljom prilagodbom. U istom je istraživanju utvrđeno da su biološke uzročne atribucije povezane s nižom percipiranom podložnosti osobnoj kontroli i većom percipiranom stabilnosti. Metaanaliza koju su proveli Roesch i Weiner (2001) također je pokazala da je pripisivanje vlastite bolesti ili medicinskog stanja unutarnjim, nestabilnim uzrocima koji su podložni osobnoj kontroli neizravno povezano s boljom prilagodbom kroz aktivno suočavanje, dok je pripisivanje bolesti ili medicinskog stanja stabilnim uzrocima koji su nepodložni kontroli povezano s lošijom prilagodbom kroz izbjegavajuće strategije suočavanja. Ovi rezultati idu u prilog hipotezi da je pripisivanje nepoželjnog ishoda uzrocima koji su podložni osobnoj kontroli povezano s percepci-

stability. These fundamental characteristics of the causes and not the causes themselves determine the cognitive, affective, and behavioural consequences. For example, the locus dimension has been found to be associated with self-esteem, the controllability dimension with feelings of shame and gratitude, and the stability dimension with feelings of hopelessness (Weiner, 1985). The reactions of two people who attribute the same cause for the same outcome will therefore differ depending on how they position this cause on the dimensions of locus, controllability, and stability.

Previous studies on adaptation to negative events have mainly focused on linking adaptation to internal or external causal attributions. Although external causes are usually associated with lower personal controllability, causes with an internal locus may differ in terms of stability and personal controllability. A study by Brown and Siegel (1988) suggested that the dimension of personal controllability is more important than the locus of the cause when explaining the relationship between causal attributions and adjustment to major stressful life events. Their results showed that internal, uncontrollable, and stable causal attributions were associated with an increase in depression nine months later, while internal, controllable causal attributions were negatively associated with depression. Similarly, Boyle (2016) found that attributing one's stuttering to causes perceived as personally controllable and unstable was associated with better adjustment. In the same study, biological causal attributions were found to be associated with lower perceived personal controllability and higher perceived stability. A meta-analytic study by Roesch and Weiner (2001) also showed that attributing one's illness or medical condition to internal, unstable, controllable causes was indirectly associated with better adjustment through active coping, whereas attributing illness to stable, uncontrollable causes was associated with poorer adjustment through avoidant coping strategies. These results support the hypothesis that attributing a negative outcome to personally controllable causes is associated with the perception of a greater ability to influence one's condition, leading to better adjustment.

jom veće mogućnosti djelovanja na vlastito stanje, što dovodi do bolje prilagodbe.

Dimenzije mjesta uzročnosti, podložnosti uzroka kontroli i stabilnosti uzroka pokazale su se povezanima i s roditeljskom prilagodbom na djetetove teškoće u razvoju, iako rezultati nisu konzistentni. Istraživanje koje je provela Robinson (2001) pokazalo je negativnu povezanost dimenzija mjesta uzročnosti i stabilnosti uzroka sa suočavanjem usmjerenim na problem. Majke djece s poremećajem iz spektra autizma, intelektualnim teškoćama ili cerebralnom paralizom koje su djetetovim teškoćama pripisivale unutarnje stabilne uzroke, rjeđe su rabile strategije suočavanja usmjerene na problem. Suprotno očekivanju, nije dobivena povezanost dimenzije osobne kontrole sa strategijama suočavanja. S druge strane, Mak i Kwok (2010) dobile su pozitivnu povezanost između psihičkog blagostanja roditelja čija djeca imaju poremećaj iz spektra autizma i percipirane podložnosti uzroka djetetovog poremećaja i ponašanja osobnoj kontroli.

Prilikom tumačenja rezultata prethodnih istraživanja treba uzeti u obzir da su se istraživanja razlikovala u metodološkim pristupima u ispitivanju uzročnih atribucija, zbog čega rezultate nije moguće izravno uspoređivati. Međutim, u obzir treba uzeti i to da su istraživanja bila usmjerena na prilagodbu na različite nepoželjne životne događaje te da su mjereni različiti pokazatelji prilagodbe, što bi također moglo objasniti razlike u dobivenim rezultatima. Naime, za različite nepoželjne životne događaje mogle bi biti adaptivne različite atribucije uzroka. Pojedine dimenzije uzročnih atribucija također ne moraju biti jednako važne u predviđanju reakcija na različite nepoželjne ishode (za detaljniju raspravu vidi Anderson i Arnoult, 1985). Osim toga, atribucije uzroka se tijekom vremena mogu mijenjati, odnosno pojedinci mogu donositi različite uzročne atribucije u različitim stadijima prilagodbe, a može doći i do promjena u visini povezanosti između uzročnih atribucija i prilagodbe na nepoželjan ishod (za detaljniju raspravu vidi Downey i sur., 1990).

Prema Miller (1994), roditelji djece s teškoćama u razvoju tijekom prilagodbe na djetetovu dijagnozu prolaze kroz četiri stadija. Prvi stadij

The dimensions of locus, controllability, and stability of causal attributions have also been associated with parental adjustment to their child's developmental disability, although the results are inconsistent. A study by Robinson (2001) showed a negative relationship between the locus and stability dimensions and problem-focused coping. Mothers of children with autism spectrum disorder, intellectual disability, or cerebral palsy who attributed internal and stable causes for their child's difficulties were less likely to use problem-focused coping. Contrary to expectations, no relationship was found between the dimension of personal control and coping strategies. In contrast, Mak and Kwok (2010) found a positive relationship between the psychological well-being of parents of children with an autism spectrum disorder and the perceived personal controllability of the cause of the disorder and the child's behaviour.

When interpreting the results of previous studies, it is important to recognise that the studies differed in their methodological approaches to measuring causal attributions, which is why the results are not directly comparable. However, it should also be considered that the studies focused on adjustment to different negative events and that different indicators of adjustment were measured, which could also explain the differences in the results. Different causal attributions could be adaptive for different negative life events. It is also possible that certain dimensions of causal attributions are not equally important in predicting responses to different negative outcomes (for a more detailed discussion, see Anderson & Arnoult, 1985). In addition, causal attributions may change over time, i.e., individuals may make different causal attributions at different stages of adjustment, and the strength of the relationship between causal attributions and adjustment to a negative outcome may also change (for a more detailed discussion, see Downey et al., 1990).

According to Miller (1994), parents of children with developmental disabilities go through four stages of adjustment to their child's diagnosis. The author termed the first stage as "surviving", and this stage refers to the parents' reactions and how they deal with the realisation that their

autorica naziva „preživljavanje“, a odnosi se na roditeljeve reakcije i suočavanje sa spoznajom da kod djeteta postoje teškoće u razvoju. Reakcije roditelja mogu uključivati šok, negiranje, tugu, strah, ljutnju, sram, samosažaljenje, krivnju te sumnju u vlastite roditeljske sposobnosti. Drugi stadij naziva se „traganje“, a započinje kada roditelj postane svjestan da će život njegove obitelji biti drukčiji od planiranog. „Traganje“ uključuje „vanjsko traganje“ za točnom dijagnozom i potrebnim terapijama za dijete, ali i „unutarnje traganje“, odnosno propitkivanje značenja nove situacije za obitelj, obiteljske odnose i planove. Nakon završetka „traganja“ nastupa stadij „smještanja“. U ovom se stadiju ritam života obitelji ponovno stabilizira. Posljednji se stadij naziva „odvajanje“, a odnosi se na postupno odvajanje djeteta od roditelja kako dijete postiže sve veću samostalnost. Ovaj je proces složen, dinamičan i cirkularan te se tempo kod pojedinaca može razlikovati. Međutim, traženje uzroka za djetetove teškoće i povezanost atribucija uzroka s prilagodbom roditelja vjerojatno su izraženiji na početku procesa prilagodbe. Neka prethodna istraživanja koja su se razlikovala u vremenu proteklom od nepoželjnog životnog događaja pronašla su različitu visinu povezanosti između atribucija uzroka i prilagodbe na isti događaj (vidi npr. Bulman i Wortman, 1977; Schulz i Decker, 1985), što ukazuje na to da bi visina povezanosti između atribucija uzroka i prilagodbe mogla slabiti s vremenom.

Dosadašnja istraživanja odnosa atribucija uzroka djetetove bolesti ili stanja i prilagodbe roditelja uglavnom su bila usmjerena na roditelje djece s malignim ili drugim kroničnim bolestima, djece s intelektualnim teškoćama, poremećajem iz spektra autizma ili tjelesnim invaliditetom. Prema saznanjima autorice, ovaj odnos nije se ispitivao na roditeljima djece s govornim ili jezičnim poremećajima. Fokus je ovog rada na roditeljima djece kojoj je dijagnosticiran razvojni jezični poremećaj (RJP) kao primarna dijagnoza. Radi se o poremećaju u usvajanju, razumijevanju, produkciji ili uporabi govornog ili znakovnog jezika (World Health Organization, 2022). Za RJP je karakteristično da su djetetove jezične sposobnosti značajno ispod razine očekivane s obzirom na

child has a developmental disability. Parents' reactions may include shock, denial, sadness, fear, anger, shame, self-pity, guilt, and self-doubt about their parenting skills. The second stage is called "searching", and this stage begins when parents realise that their family's life is going to be different from what they had 'planned'. The "searching" stage includes the "outer searching" for an accurate diagnosis and the necessary therapies for the child, but also the "inner searching", i.e., the inner questioning of the meaning of the new situation for the family, the family relationships, and their plans. After the end of the "searching" stage, the "settling in" takes place. In this stage, the pace of family life has stabilised. The final phase, known as "separating", refers to the gradual separation of the child from the parents as the child gains more and more independence. This process is complex, dynamic, and circular, and the pace can vary from person to person. However, the search for the causes of the child's disability and the relationship between causal attributions and parental adjustment are likely to be more pronounced in the earlier stages. Some previous studies - in which the time since the negative event has varied - have found a different strength of relationship between causal attributions and adjustment to the same negative event (see e.g., Bulman & Wortman, 1977; Schulz & Decker, 1985), suggesting that the strength of the relationship between causal attributions and adjustment may weaken over time.

Previous research on the relationship between causal attributions for the child's illness or condition and parental adjustment has mainly focused on parents of children with cancer or other chronic illnesses, intellectual disability, autism spectrum disorder, or physical disability. As far as the author is aware, this relationship has not yet been investigated in parents of children with speech or language disorders. Therefore, the focus of the present study was on parents of children with a primary diagnosis of developmental language disorder (DLD). This is a disorder of acquisition, comprehension, production or use of spoken or signed language (World Health Organization, 2022). The key characteristic of DLD is that the child's language abilities are significantly

djetetovu dob, pri čemu se ta odstupanja ne mogu objasniti drugim neurorazvojnim poremećajima, neurološkim stanjima, ozljedama mozga, intelektualnim teškoćama, senzoričkim i motoričkim odstupanjima ili drugim medicinskim čimbenicima za koje je poznato da dovode do jezičnih poremećaja (Bishop, 2006; Leonard, 2014). Iako se prije smatralo da su kod djece s RJP-om sve druge kognitivne funkcije uredne, noviji podaci ukazuju da djeca s RJP-om mogu postizati niže rezultate na zadacima neverbalnih kognitivnih sposobnosti u odnosu na svoje vršnjake urednog jezičnog razvoja (npr. Bishop i sur., 2016; Gallinat i Spaulding, 2014; Norbury i sur., 2016; Ralli i sur., 2021).

Simptomi RJP-a uključuju, primjerice, usporeni razvoj fonološkog sustava, nezrelu ili devijantnu proizvodnju govornih zvukova (osobito u djece predškolske dobi), kasnu pojavu prve riječi i rečenice, teškoće u usvajanju novih riječi, ograničeni rječnik (u proizvodnji i razumijevanju jezika), kašnjenje u usvajanju gramatike, uporabu jednostavnih gramatičkih struktura, morfološke pogreške, teškoće u razumijevanju složenih jezičnih struktura, jednostavan ili nekoherentan govor, teškoće u započinjanju i vođenju razgovora itd. (za više informacija vidi npr. Bishop, 2006; Kologranić Belić i sur., 2015; Leonard, 2014). Poremećaj se pojavljuje tijekom ranog djetinjstva, no odstupanja u jezičnim sposobnostima zadržavaju se i u odrasloj dobi. Može se javiti u različitim stupnjevima izraženosti. Dosadašnja istraživanja u Hrvatskoj većinom su se bavila jezičnim i kognitivnim sposobnostima djece s RJP-om (vidi npr. Balija i sur., 2012; Blaži, 1999; Hržica i Lice, 2013; Kuvač Kraljević i sur., 2020). Iako su općenito istraživanja ove populacije manje usmjerena na nejezične teškoće, dosadašnja su istraživanja pokazala da je RJP povezan s nižim akademskim uspjehom i češćim prekidom školovanja (npr. Young i sur., 2002), problemima u ponašanju (npr. Hart i sur., 2004; Puglisi i sur., 2016), emocionalnim problemima (npr. Burnley i sur., 2023; van den Bedem i sur., 2018) te poteškoćama u stvaranju socijalnih odnosa (npr. Botting i Conti-Ramsden, 2000; Conti-Ramsden i Botting, 2004), što uočavaju i roditelji djece s RJP-om (vidi npr. de López i sur., 2021).

below the level expected for their age, but these language deficits cannot be explained by other neurodevelopmental disorders, neurological conditions, brain injuries, intellectual disability, sensory and motoric deficits, or other medical factors known to cause language impairment (Bishop, 2006; Leonard, 2014). Although it was previously assumed that all other cognitive functions of children with DLD were normal, more recent data suggest that children with DLD can perform worse on non-verbal cognitive tasks than their typically developing peers (e.g., Bishop et al., 2016; Gallinat & Spaulding, 2014; Norbury et al., 2016; Ralli et al., 2021).

The symptoms of DLD include, for example, slow development of the phonological system, immature or deviant production of speech sounds (especially in preschool children), late appearance of the first word and sentence, difficulties in acquiring new words, limited vocabulary (both in production and comprehension), delays in the acquisition of grammar, use of simplified grammatical structures, morphological errors, difficulties in understanding complex language, simplified or incoherent speech, difficulties in initiating and maintaining a conversation, etc. (for more information, see e.g. Bishop, 2006; Kologranić Belić et al., 2015; Leonard, 2014). DLD occurs in early childhood, but the deficits in language abilities persist into adulthood. The disorder can occur in varying degrees of severity. Previous studies in Croatia have mainly focused on the language and cognitive abilities of children with DLD (see e.g., Balija et al., 2012; Blaži, 1999; Hržica & Lice, 2013; Kuvač Kraljević et al., 2020). Although research on this population generally focuses less on non-language difficulties, previous studies have shown that DLD is associated with poorer academic performance and more frequent school dropouts (e.g., Young et al., 2002), behavioural problems (e.g., Hart et al., 2004; Puglisi et al., 2016), emotional problems (e.g., Burnley et al., 2023; van den Bedem et al., 2018) and difficulties in building social relationships (e.g., Botting & Conti-Ramsden, 2000; Conti-Ramsden & Botting, 2004), which has also been reported by parents of children with DLD (see e.g., de López et al., 2021).



Iako uzrok još nije sasvim poznat, smatra se da je poremećaj rezultat interakcijskog djelovanja različitih genetskih i okolinskih rizičnih čimbenika (Bishop, 2006). Što se tiče roditeljske percepcije uzročnosti, nedostaje istraživanja na ovu temu. Istraživanje Marshall i suradnika (2007) koje se bavilo roditeljskim atribucijama uzroka djetetovog kašnjenja u jezičnom razvoju, pokazalo je da roditelji kašnjenje pripisuju različitim unutarnjim uzrocima koji su vezani uz dijete (npr. kognitivni čimbenici, razvijenost sluha, djetetove osobine ličnosti itd.) te vanjskim uzrocima (npr. redoslijed rođenja, okolinske prilike, obiteljski odnosi, broj braće i sestara itd.). Također, manji broj istraživanja ukazuje da roditelji često razmišljaju o vlastitom ponašanju kao potencijalnom uzroku djetetovih jezičnih i govornih poremećaja (vidi npr. Marshall i sur., 2007; Rannard i sur., 2004). S obzirom na nedostatak istraživanja roditeljske percepcije uzročnosti RJP-a te odnosa uzročnih atribucija i roditeljske prilagodbe na ovoj populaciji, kao i nejednoznačnost rezultata prethodnih istraživanja na drugim populacijama, ovo istraživanje želi doprinijeti boljem razumijevanju roditeljske percepcije RJP-a i uloge uzročnih atribucija u prilagodbi roditelja na djetetov razvojni poremećaj.

## CILJEVI ISTRAŽIVANJA

Provedeno istraživanje imalo je dva cilja. Prvi cilj bio je opisati kojim uzrocima roditelji objašnjavaju RJP kod svoga djeteta i kako te uzroke procjenjuju na dimenzijama mjesta uzročnosti, podložnosti osobnoj kontroli te stabilnosti. Drugi cilj istraživanja bio je ispitati odnos atribucija uzroka djetetovog RJP-a i mentalnog zdravlja roditelja te provjeriti razlikuju li se odnosi ovisno o vremenu koje je prošlo od djetetove dijagnoze. Konkretnije, polazeći od Weinerove (1985) atribucijske teorije, ovo je istraživanje ispitalo povezanost percipiranog mjesta uzročnosti, podložnosti uzroka osobnoj kontroli i stabilnosti uzroka pripisanog djetetovom RJP-u s negativnim emocionalnim stanjima (depresivnosti, anksioznosti i stresa) kod roditelja. Sukladno rezultatima prethodnih istraživanja, postavljena je hipoteza da će negativna emocionalna stanja roditelja biti pozitivno povezana s percipiranim mjestom uzročnosti i stabilnosti uzroka, a

Although the cause is still not fully understood, it is thought to be the result of the interaction of various genetic and environmental risk factors (Bishop, 2006). As far as parental perception of causality is concerned, there is little research on this topic. A study by Marshall et al. (2007), which examined parental causal attributions for a child's language development delay, showed that parents attribute the delay to various internal causes related to the child (e.g., cognitive factors, auditory development, child's personality traits, etc.), as well as external causes (e.g., birth order, environmental conditions, family relationships, number of siblings, etc.). In addition, some studies indicate that parents often question their own behaviour as a possible cause of their child's language difficulties (see e.g., Marshall et al., 2007; Rannard et al., 2004). Given the lack of research on parental perceptions of causality of DLD and the relationship between causal attributions and parental adjustment in this population, as well as the inconsistency of findings from previous research on other populations, the present study aimed to contribute to a better understanding of parental perceptions of DLD and the role of causal attributions in parental adjustment to a child's developmental disorder.

## AIMS OF THE PRESENT STUDY

The present study had two aims. The first aim was to describe the causes that parents attribute to their child's DLD and how they rate these causes on the dimensions of locus, personal controllability, and stability. The second aim was to examine the relationship between attributions of the cause of the child's DLD and the parents' mental health and to determine whether these relationships differ as a function of time since diagnosis. More specifically, based on Weiner's (1985) attributional theory, this study examined the relationship between perceived locus, personal controllability, and stability of the cause attributed to the child's DLD and parents' negative emotional states (depression, anxiety, and stress). Consistent with previous findings, it was hypothesised that parents' negative emotional states would be positively associated with the perceived locus and stability of the cause, and negatively associated

negativno s podložnosti uzroka osobnoj kontroli. Roditelji koji uzrok djetetovog RJP-a procjenjuju više unutarnjim i stabilnim te manje podložnim osobnoj kontroli, iskazivat će o višim razinama depresivnosti, anksioznosti i stresa. S obzirom na to da bi atribucije uzroka nepoželjnih ishoda mogle imati jači učinak na prilagodbu pojedinaca u ranijem periodu prilagodbe (za detaljniju raspravu vidi Downey i sur., 1990), pretpostavljeno je da će percipirano mjesto uzročnosti, podložnost osobnoj kontroli i stabilnost uzroka djetetova poremećaja imati to slabiji učinak na negativna emocionalna stanja roditelja što je više vremena prošlo od djetetove dijagnoze.

## METODA

### Sudionici

Ciljna populacija ovog istraživanja bili su roditelji djece kojoj je dijagnosticiran RJP. Postupak odabira sudionika proveden je u suradnji s logopedima iz cijele Hrvatske. Logopedi su na temelju kliničkih nalaza djece i definiranih kriterija za odabir sudionika izradili okvir uzorkovanja te roditeljima koji su udovoljavali kriterijima poslali poziv za sudjelovanje u istraživanju. U istraživanju su mogli sudjelovati isključivo roditelji čijem je djetetu logoped na temelju logopedске procjene i testiranja jezičnih sposobnosti standardiziranim jezičnim testovima postavio dijagnozu RJP-a. Neurološka, senzorička i motorička odstupanja te intelektualne teškoće i drugi neurorazvojni poremećaji trebali su biti isključeni odgovarajućim testovima i postupcima procjene. Kriteriji za uključivanje u uzorak bili su sljedeći: 1) RJP kao primarna dijagnoza, bez komorbiditeta s nekim izraženijim poremećajem (npr. poremećajem iz spektra autizma ili ADHD-om) ili tjelesnim invaliditetom (npr. cerebralnom paralizom, gluhoćom, sljepoćom i sl.), 2) dijete nije završilo logopedsku terapiju na temelju postignutog napretka i 3) dob djeteta između četiri i 15 godina. Za donju granicu djetetove dobi odabrana je dob od četiri godine budući da tada jezične sposobnosti postaju stabilnije te je RJP moguće točnije dijagnosticirati (McKean, Reilly, i sur., 2017; McKean, Wraith, i sur., 2017; Sansavini i sur., 2021). Za gornju granicu

with personal controllability. Parents who perceived the cause of their child's DLD to be more internal, stable, and less personally controllable would report higher levels of depression, anxiety, and stress. Because causal attributions may have a stronger effect on individual adjustment to negative events at earlier stages (for a more detailed discussion, see Downey et al., 1990), it was hypothesised that the locus, personal controllability, and stability of the cause of the child's disorder would have a weaker effect on parents' negative emotional states the more time had passed since the child's diagnosis.

## METHODS

### Participants

The target group of the study were parents of children who had been diagnosed with DLD. Participants were selected in collaboration with speech-language pathologists (SLPs) from all over Croatia. They created a sampling frame based on the children's clinical records and predefined sampling criteria and sent an invitation of participation to parents who met the criteria. All individuals who participated in the study had to be parents of children who had been diagnosed with DLD by an SLP based on the logopaedic evaluation and performance on standardised language tests. Neurological, sensory and motor deficits, intellectual disabilities and other neurodevelopmental disorders had to be ruled out using appropriate tests and assessment procedures. The criteria for inclusion in the sample were as follows: 1) the child's primary diagnosis was DLD, without comorbidity with a more prominent disorder (e.g., autism spectrum disorder or ADHD) or physical disability (e.g., cerebral palsy, deafness, blindness, etc.), 2) the child had not completed speech therapy based on progress made, and 3) the child's age was between four and 15 years. The age of four years was chosen as the lower limit for the child's age because language abilities become more stable at this age and DLD can be diagnosed more accurately (McKean, Reilly, et al., 2017; McKean, Wraith, et al., 2017; Sansavini et al., 2021). The age of 15 years (i.e., the child is in

odabrana je dob od 15 godina, odnosno da dijete pohađa 8. razred osnovne škole, budući da tijekom srednje škole postupno dolazi do sve većeg osamostaljivanja djeteta te je manje izražena odgovornost roditelja za djetetov razvoj i napredak.

Osim preko logopeda, manji dio sudionika regrutiran je putem oglasa na društvenoj mreži *Facebook*. U oglasu se nalazila poveznica na kratku anketu s pomoću koje je najprije provjereno udovoljavaju li zainteresirani roditelji kriterijima odabira sudionika, što je uključivalo i pitanja o djetetovoj dijagnozi te prisutnosti različitih odstupanja i oštećenja kako bi se iz uzorka isključili oni roditelji kod čije djece se ne radi o RJP-u. Samo oni roditelji koji su udovoljavali kriterijima odabira sudionika, ukupno 57 roditelja, pozvani su da ispune glavni upitnik. Međutim, nije moguće odrediti koliko njih je u konačnici upitnik i ispunilo. Pitanja vezana za kriterije odabira sudionika te djetetovu dijagnozu i druga odstupanja nalazila su se i u samom upitniku te su tako iz uzorka isključeni svi koji nisu ispunjavali kriterije. U konačnici, podaci su prikupljeni od 319 bioloških roditelja (94.2 % majki i 5.8 % očeva). Dob roditelja kretala se u rasponu od 26 do 56 godina ( $M = 39.71$ ,  $SD = 5.09$ ). Većina je bila u partnerskom odnosu (93.6 %) te u prosjeku imala dvoje djece. Nešto više od polovice uzorka imalo je tercijarno obrazovanje (55.6 %), 43.5 % sekundarno obrazovanje, a samo 1 % osnovnoškolsko obrazovanje. Oko 14 % roditelja navelo je da oni ili drugi djetetov roditelj imaju jezični ili govorni poremećaj.

Većina roditelja (82.4 %) navela je da ima jedno dijete s dijagnozom RJP-a, dok 14.4 % ima dvoje, a 3.1 % troje djece s istom dijagnozom. Prosječna dob djece bila je sedam godina i devet mjeseci ( $M = 7.75$ ,  $SD = 2.75$  godina), a 70.6 % njih su bili dječaci. Oko 65 % roditelja navelo je da (barem jedno) dijete uz RJP ima i neke pridružene teškoće: probleme izgovora, specifične teškoće učenja, probleme u ponašanju, emocionalne probleme i/ili poremećaj pažnje. Većina djece (87.8 %) bila je uključena u logopedsku terapiju u vrijeme provedbe istraživanja. Prosječno vrijeme proteklo od postavljanja djetetove dijagnoze iznosilo je tri godine i pet mjeseci ( $M = 3.43$ ,  $SD =$

the 8th grade of primary school) was chosen as the upper limit, since the child gradually becomes more independent during secondary school and the parents' responsibility for the child's development and progress is less pronounced.

In addition, a small number of participants were recruited via advertisements on Facebook. The advertisement included a link to a short survey to first check whether the interested parents met the selection criteria for participation. The survey included questions about the child's diagnosis and the presence of various deficits and impairments in order to exclude those parents from the sample whose children did not have DLD. Only those who met the criteria, 57 parents in total, were invited to complete the main questionnaire. However, it is not possible to determine how many of them actually responded. The questions relating to the selection criteria, the child's diagnosis, and other impairments were also included in the main questionnaire, and in this way, all those who did not meet the criteria were excluded from the sample. Ultimately, data were collected from 319 biological parents (94.2% mothers and 5.8% fathers). The age of the parents ranged from 26 to 56 years ( $M = 39.71$ ,  $SD = 5.09$ ). Most were in a relationship (93.6%) and had an average of two children. Just over half of the sample had a tertiary education (55.6%), 43.5% had completed secondary school, and only 1% had completed primary school. Approximately 14% of parents stated that they or the child's other parent had a speech or language disorder.

The majority of parents (82.4%) reported having one child with a DLD diagnosis, while 14.4% had two, and 3.1% had three children with the same diagnosis. The mean age of the children was seven years and nine months ( $M = 7.75$ ,  $SD = 2.75$  years), and 70.6% of them were boys. Approximately 65% of the participants reported that (at least one) child with DLD also had some associated difficulties: pronunciation difficulties, specific learning difficulties, behavioural problems, emotional problems, and/or attention deficit disorder. A majority of the children (87.8%) were receiving speech therapy at the time of the study. The average time since the child's diagnosis was three years and five months ( $M = 3.43$ ,  $SD = 2.30$  years;

2.30 godina; raspon 0 do 12 godina), a vrijeme od uključivanja djeteta u logopedsku terapiju dvije godine i 10 mjeseci ( $M = 2.82$ ,  $SD = 2.28$  godina; raspon 0 do 10 godina i 11 mjeseci). 10.7 % roditelja navelo je da imaju još jedno dijete koje ima neke druge teškoće u razvoju ili kroničnu bolest.

## Mjerni instrumenti

Podaci su prikupljeni s pomoću upitnika koji se sastojao od Revidirane skale uzročnih dimenzija (CDS-II; McAuley i sur., 1992), Skale depresivnosti, anksioznosti i stresa (DASS-21; Lovibond i Lovibond, 1995) te sociodemografskih pitanja o roditeljima i njihovoj djeci kojoj je dijagnosticiran RJP.

### *Revidirana skala uzročnih dimenzija (CDS-II)*

Skala CDS-II (eng. *The Revised Causal Dimension Scale*; McAuley i sur., 1992) sastoji se od četiri supskale s po tri čestice, no za potrebe ovog istraživanja rabljene su tri supskale koje mjere tri dimenzije uzročnih atribucija prema Weinerovoj (1985) teoriji: mjesto uzročnosti (npr. „Je li uzrok nešto izvan Vas – u Vama?“), podložnost osobnoj kontroli (npr. „Je li uzrok nešto što ne možete regulirati – što možete regulirati?“) te stabilnost (npr. „Je li uzrok nešto privremeno – trajno?“). Supskala vanjske kontrole izostavljena je jer, s obzirom na ulogu roditelja u djetetovom razvoju, osobna kontrola nad uzrokom djetetovog razvojnog poremećaja bi trebala biti relevantnija. Zadatak sudionika bio je navesti uzrok koji smatraju primarnim za djetetov RJP te nakon toga navedeni uzrok procijeniti na tri dimenzije. Čestice skale oblikovane su kao brojčani kontinuum od devet stupnjeva, sa svake strane omeđen suprotnim opisima uzroka. Sudionici odgovaraju odabirom broja koji najbolje odražava njihovu percepciju uzroka. Viši rezultat označava u većoj mjeri unutarnji uzrok, veću mogućnost osobne kontrole nad uzrokom te veću stabilnost uzroka. Faktorske su analize potvrdile tri nezavisna ali međusobno povezana faktora. Omega koeficijent pouzdanosti za supskalu mjesta uzročnosti iznosio je  $\omega = .64$ , za supskalu osobne kontrole  $\omega = .85$ , a za supskalu stabilnosti  $\omega = .83$ . Cronbachov  $\alpha$  koeficijent

range 0 to 12 years), and the average time since the child's enrolment in speech therapy was two years and 10 months ( $M = 2.82$ ,  $SD = 2.28$  years; range 0 to 10 years and 11 months). 10.7% of the parents stated that they had another child with other developmental disabilities or a chronic illness.

## Instruments

The data were collected using a questionnaire consisting of the Revised Causal Dimensions Scale (CDS-II; McAuley et al., 1992), the Depression, Anxiety, and Stress Scale (DASS-21; Lovibond & Lovibond, 1995), and socio-demographic questions about the parents and their children who were diagnosed with DLD.

### *Revised Causal Dimensions Scale (CDS-II)*

The CDS-II (McAuley et al., 1992) consists of four subscales with three items each. For the purpose of this study, the three subscales that measure the three dimensions of causal attributions proposed by Weiner (1985) were used: locus of causality (e.g., “Is this cause something outside of you – inside of you?”), personal controllability (e.g., “Is this cause something you cannot regulate – you can regulate?”), and stability (e.g., “Is this cause something temporary – permanent?”). The external control subscale was omitted because, given the role that parents play in a child's development, personal control over the cause of a child's developmental disorder should be more relevant. Participants were asked to indicate the cause they believed to be the main cause of their child's DLD and then to rate the indicated cause on the three dimensions. The scale items are formulated as a nine-point numerical continuum with opposing cause descriptions on each side. Participants responded by selecting the number that best reflected their perception of the cause. A higher score indicates a more internal locus of the cause, greater personal controllability, and greater stability of the cause. The factor analyses confirmed three independent, but interrelated factors. The omega reliability coefficient for the locus subscale was  $\omega = .64$ , for the personal control subscale  $\omega = .85$ , and for the stability subscale



za supskalu mjesta uzročnosti iznosio je  $\alpha = .63$ , za supskalu osobne kontrole  $\alpha = .84$ , a za supskalu stabilnosti  $\alpha = .83$ . Iako je za supskalu mjesta uzročnosti dobivena niža pouzdanost [kao prihvatljiva pouzdanost mjernog instrumenta obično se uzima vrijednost  $\alpha \geq .70$  (vidi npr. George i Mallery, 2016; Nunnally, 1978)], slične vrijednosti dobili su i sami autori skale CDS-II (za više informacija, vidi McAuley i sur., 1992).

### **Skala depresivnosti, anksioznosti i stresa (DASS-21)**

Skala DASS-21 (eng. *The Depression, Anxiety and Stress Scale*; Lovibond i Lovibond, 1995) namijenjena je ispitivanju triju dimenzija negativnih emocionalnih stanja: depresivnosti, anksioznosti i stresa. Sastoji se od 21 čestice ravnomjerno raspoređene na tri supskale: depresivnost (npr. „Uopće nisam mogao/la doživjeti neki pozitivan osjećaj.“), anksioznost (npr. „Osjetio/la sam da sam blizu panici.“) i stres (npr. „Osjetio/la sam da postajem uznemiren/a.“). Zadatak sudionika bio je na skali od 0 (*uopće se nije odnosilo na mene*) do 3 (*gotovo u potpunosti ili većinu vremena se odnosilo na mene*) procijeniti u kojoj mjeri tvrdnje opisuju kako su se osjećali u posljednjih tjedan dana. Viši rezultati ukazuju na veću izraženost određenog emocionalnog stanja, odnosno u većoj mjeri narušeno mentalno zdravlje. Provedene faktorske analize nisu potvrdile tri faktora, nego su ukazivale na jedan opći faktor (vidi i npr., Kia-Keating i sur., 2018; Mihić i sur., 2021; Zanon i sur., 2021). Budući da su podaci mjereni na ordinalnoj skali, kao mjera pouzdanosti unutarnje konzistencije izračunat je ordinalni  $\alpha$  koeficijent (vidi Gadermann i sur., 2012), koji je za cijelu skalu iznosio  $\alpha = .97$ . Omega koeficijent pouzdanosti iznosio je  $\omega = .98$ .

### **Postupak**

Pozivi za sudjelovanje u istraživanju potencijalnim sudionicima poslani su preko logopeda kod kojih su djeca u terapiji te putem *online* oglasa na društvenim mrežama. Podaci su prikupljeni putem *web* ankete. Ispunjavanje upitnika u prosjeku je trajalo oko 10 minuta. Prije pokretanja upitnika sudionicima je prezentiran tekst obavijesnog pristanka s informacijama o postupku istraživanja

$\omega = .83$ . The Cronbach's  $\alpha$  coefficient for the locus subscale was  $\alpha = .63$ , for the personal control subscale  $\alpha = .84$ , and for the stability subscale  $\alpha = .83$ . Although the locus subscale showed lower reliability [acceptable reliability of a measurement instrument is generally considered to be  $\alpha \geq .70$  (see e.g., George & Mallery, 2016; Nunnally, 1978)], similar values were obtained by the authors of the CDS-II scale (for more information, see McAuley et al., 1992).

### **Depression, Anxiety, and Stress Scale (DASS-21)**

The DASS-21 (Lovibond & Lovibond, 1995) was developed to measure three dimensions of negative emotional states: depression, anxiety, and stress. It consists of 21 items, evenly distributed across three subscales: depression (e.g., “I couldn't seem to experience any positive feeling at all.”), anxiety (e.g., “I felt I was close to panic.”), and stress (e.g., “I found myself getting agitated.”). Participants were asked to rate the extent to which the statements described how they felt in the past week on a scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much or most of the time*). Higher scores indicate a higher level of a particular emotional state, i.e., greater impairment of mental health. The factor analyses did not confirm the three factors, but indicated one general factor (see also e.g., Kia-Keating et al., 2018; Mihić et al., 2021; Zanon et al., 2021). Since the data were measured on an ordinal scale, the ordinal  $\alpha$  coefficient was calculated as a measure of internal consistency reliability (see Gadermann et al., 2012), which was  $\alpha = .97$  for the entire scale. The omega reliability coefficient was  $\omega = .98$ .

### **Procedure**

Participation invitation letters were sent to potential participants via the children's SLPs and social media advertisements. The data were collected via an online survey. It took an average of 10 minutes to complete the questionnaire. Before starting the questionnaire, participants were presented with the consent form, which described the research procedure and how the data would be handled. Participation in the study was voluntary,

te načinima postupanja s podacima. Sudjelovanje u istraživanju bilo je dobrovoljno, a sudionici su svoj pristanak dali odabirom potvrdnog odgovora te pokretanjem upitnika (npr. Mahon, 2014). Podaci su prikupljeni tijekom prosinca 2020. godine. Kako bi se povećao odaziv sudionika, svim su sudionicima poslana dva podsjetnika za ispunjavanje upitnika. Istraživanje je odobrilo Etičko povjerenstvo Odsjeka za psihologiju Filozofskog fakulteta u Zagrebu te institucije koje su sudjelovale u regrutaciji sudionika (popis institucija dostupno je u Zahvalama).

## REZULTATI

### Uzroci kojima roditelji objašnjavaju djetetov RJP

U okviru CDS-II skale od sudionika se tražilo da navedu uzrok koji smatraju primarnim za djetetov RJP te nakon toga navedeni uzrok procijene na tri dimenzije. Od 319 sudionika, njih 94 (29.5 %) nije navelo konkretan uzrok. Ovaj postotak uključuje sudionike koji u potpunosti nisu odgovorili na CDS-II skalu (3.8 %), koji su naveli da ne znaju što bi točno bio uzrok, ali su odgovorili na pitanja o mjestu uzročnosti, podložnosti uzroka osobnoj kontroli i stabilnosti uzroka (5.3 %) te sudionike koji nisu odgovorili na otvoreno pitanje o uzroku, ali su ispunili ostatak CDS-II skale (20.4 %).

Kvalitativni odgovori sudionika o primarnom uzroku djetetovog RJP-a tematski su podijeljeni u sljedeće kategorije: 1) genetski čimbenici, 2) prenatalni i perinatalni rizični čimbenici (npr. problemi u trudnoći, prijevremeno rođenje djeteta, komplikacije prilikom poroda, visoka kronološka dob roditelja), 3) fizički, neurološki i zdravstveni čimbenici (npr. problemi s krajnicima, upale uha u ranoj dobi, neurološki i neuromotorni problemi, bolesti i ozljede), 4) neadekvatan jezični unos i reakcije roditelja (npr. premalo govorenja ili čitanja djetetu, izloženost djeteta stranom jeziku u vrtiću ili kroz medije, dvojezičnost, nepravovremena reakcija na primijećene probleme), 5) izloženost ekranima (prerana i pretjerana izloženost ekranima – TV, mobitel, tablet i sl.), 6) lijekovi i medicinski zahvati tijekom ranog djetinjstva (npr. cje-

and participants gave their consent by selecting a positive response and starting the questionnaire (e.g., Mahon, 2014). The data were collected in December 2020. To increase the response rate, all participants were reminded twice to complete the questionnaire. The research was approved by the Ethics Committee of the Department of Psychology at the Faculty of Humanities and Social Sciences in Zagreb and by the institutions involved in the recruitment of participants (list available in the Acknowledgements).

## RESULTS

### Causal explanations provided by parents for their child's DLD

Within CDS-II, participants were asked to indicate the cause that they believed was the main cause of their child's DLD, as well as to rate the indicated cause on three dimensions. Of the 319 participants, 94 of them (29.5%) did not indicate any cause. This percentage includes participants who did not answer the CDS-II at all (3.8%), who stated that they did not know the exact cause, but answered questions about the locus, personal controllability, and stability of the cause (5.3%), as well as participants who did not answer the open-ended question about the cause, but completed the rest of the CDS-II (20.4%).

Participants' qualitative responses regarding the main cause of their child's DLD were thematically categorised as follows: 1) genetic factors, 2) prenatal and perinatal risk factors (e.g., problems during pregnancy, prematurity, complications at birth, advanced chronological age of parents), 3) physical, neurological, and health-related factors (e.g., tonsil problems, ear infections at a young age, neurological and neuromotor problems, illnesses and injuries), 4) inadequate language input and parental reactions (e.g., not talking or reading to the child enough, exposure of a child to a foreign language in kindergarten or through the media, bilingualism, untimely response to perceived problems), 5) screen exposure (premature and excessive exposure to screens – TV, mobile phone, tablet, etc.), 6) medication and medical interventions in early childhood (e.g., vaccinations, che-

pivo, kemoterapija), 7) kognitivni čimbenici (npr. mentalna nezrelost, poremećaji razumijevanja i pažnje), 8) osobine djeteta (npr. djetetov karakter, nezainteresiranost za komunikaciju, neposluh, tvrdoglavost, lijenost), 9) jaki stres (veliki stresni događaji u ranoj dobi, primjerice smrt u obitelji, odvajanje od roditelja tijekom boravka u bolnici, stres u školi), 10) kašnjenje u razvoju, 11) uporaba dudu i bočica. Zastupljenost pojedinih odgovora prikazana je u Tablici 1. Roditelji su djetetov RJP u najvećoj mjeri pripisivali genetskim čimbenicima te različitim prenatalnim i perinatalnim rizničnim čimbenicima, a najmanje uporabi dudu i bočica (svega dvoje roditelja).

motherapy), 7) cognitive factors (e.g., mental immaturity, comprehension and attention disorders), 8) child characteristics (e.g., the child's character, lack of interest in communication, disobedience, stubbornness, laziness), 9) severe stress (major stressful events at a young age, for example, death in the family, separation from parents during hospitalisation, stress at school), 10) developmental delay, and 11) use of dummies and bottles. The frequency of responses is shown in Table 1. Most of the parents attributed the child's DLD to genetic factors and various prenatal and perinatal risk factors, while very few attributed the child's DLS to the use of dummies and bottles (only two parents).

**Tablica 1.** *Uzroci kojima roditelji objašnjavaju djetetov RJP – udio odgovora u pojedinoj kategoriji (N = 225) /*  
**Table 1.** *Causal attributions related to child's DLD – percentage of responses in each category (N = 225)*

| Causal category                                | Percentage of responses (%) |
|--|-----------------------------|
| Genetic factors                                | 24.0                        |
| Pre- & peri-natal risk factors                 | 21.8                        |
| Physical, neurological, & health factors       | 12.4                        |
| Inadequate language input & parental reactions | 12.4                        |
| Screen exposure                                | 9.8                         |
| Medication & medical interventions             | 4.4                         |
| Cognitive factors                              | 4.4                         |
| Child characteristics                          | 4.4                         |
| Severe stress                                  | 2.7                         |
| Developmental delay                            | 2.7                         |
| Use of dummies & bottles                       | 0.9                         |

U Tablici 2 za pojedine su kategorije uzroka prikazane prosječne procjene mjesta uzročnosti, osobne kontrole nad uzrokom i stabilnosti uzroka. Podaci su izračunati za kategorije koje sadrže minimalno 10 odgovora. Za većinu kategorija mogu se uočiti veliki rasponi odgovora na svim dimenzijama. Dakle, sudionici su vrlo različito procjenjivali uzroke iz iste tematske kategorije. Broj odgovora u pojedinim kategorijama dosta se razlikuje, no usporedbom prosječnih procjena mogu se uočiti neki trendovi. Roditelji su za sve kategorije mjesto uzročnosti u prosjeku procjenjivali vanjskim (sve su prosječne procjene na supskali mjesta uzročnosti manje od pet). Najviše vanjskim procijenili su mjesto uzročnosti za ka-

Table 2 lists the mean estimates for the perceived locus of causality, personal controllability, and stability for each causal category. The data were calculated for categories with at least 10 responses. For most categories, large response ranges were observed for all dimensions. Participants rated the causes within the same category very differently. The number of responses within a category varied widely, but some trends can be recognised when comparing the average ratings. On average, parents rated the locus of causality as being external (the average rating on the locus subscale was below 5 for all causal categories). The locus of causality was rated as the most external for medication and medical interventions at a young age

tegorije lijekovi i medicinski zahvati u ranoj dobi ( $M = 2.8$ ,  $SD = 1.4$ ) te kognitivni čimbenici ( $M = 2.8$ ,  $SD = 1.3$ ). Najmanje vanjskim procijenili su mjesto uzročnosti za neadekvatan jezični unos i reakcije roditelja ( $M = 4.8$ ,  $SD = 2.0$ ) te genetske čimbenike ( $M = 4.5$ ,  $SD = 2.0$ ). Izloženost ekranima ( $M = 7.6$ ,  $SD = 1.7$ ) te neadekvatan jezični unos i reakcije roditelja ( $M = 6.0$ ,  $SD = 2.2$ ) procijenjeni su kao uzroci najviše podložni osobnoj kontroli, a prenatalni i perinatalni rizični čimbenici kao najmanje ( $M = 2.5$ ,  $SD = 1.9$ ). Najstabilnijima su procijenjeni genetski čimbenici ( $M = 5.8$ ,  $SD = 2.3$ ), a najmanje neadekvatan jezični unos i reakcije roditelja ( $M = 2.9$ ,  $SD = 1.6$ ), izloženost ekranima ( $M = 3.1$ ,  $SD = 1.9$ ) te osobine djeteta ( $M = 3.2$ ,  $SD = 1.1$ ).

( $M = 2.8$ ,  $SD = 1.4$ ), as well as for cognitive factors ( $M = 2.8$ ,  $SD = 1.3$ ), while it was rated as the least external for inadequate language input and parental reactions ( $M = 4.8$ ,  $SD = 2.0$ ), as well as for genetic factors ( $M = 4.5$ ,  $SD = 2.0$ ). Screen exposure ( $M = 7.6$ ,  $SD = 1.7$ ) and inadequate language input and parental reactions ( $M = 6.0$ ,  $SD = 2.2$ ) were rated as the most personally controllable causes, while prenatal and perinatal risk factors were rated as the least personally controllable causes ( $M = 2.5$ ,  $SD = 1.9$ ). Genetic factors were rated as the most stable ( $M = 5.8$ ,  $SD = 2.3$ ), while inadequate language input and parental reactions ( $M = 2.9$ ,  $SD = 1.6$ ), screen exposure ( $M = 3.1$ ,  $SD = 1.9$ ) and child characteristics ( $M = 3.2$ ,  $SD = 1.1$ ) were rated as the least stable causes of DLD.

**Tablica 2.** *Prosječne procjene mjesta uzročnosti, podložnosti uzroka osobnoj kontroli i stabilnosti uzroka te raspon procjena za pojedine kategorije uzroka. Podaci su prikazani za kategorije uzroka koje sadrže minimalno 10 odgovora, poredani od kategorije s najvećim brojem odgovora prema najmanjem. / Table 2. Mean ratings and response range for locus, personal controllability, and stability of cause for each causal category. Data are presented for causal categories with at least 10 responses in descending order by number of responses in the category.*

| Causes   | Locus of causality |           |                  | Personal controllability |           |                  | Stability |           |                  |
|--|--------------------|-----------|------------------|--------------------------|-----------|------------------|-----------|-----------|------------------|
|  | <i>M</i>           | <i>SD</i> | <i>Min – Max</i> | <i>M</i>                 | <i>SD</i> | <i>Min – Max</i> | <i>M</i>  | <i>SD</i> | <i>Min – Max</i> |
| Genetic <sup>a</sup>                             | 4.5                | 2.0       | 1 – 9            | 3.4                      | 2.1       | 1 – 9            | 5.8       | 2.3       | 1.3 – 9          |
| Pre- & perinatal <sup>b</sup>                    | 3.0                | 1.8       | 1 – 8            | 2.5                      | 1.9       | 1 – 9            | 5.0       | 2.8       | 1 – 9            |
| Physical, neurological & health <sup>c</sup>     | 3.4                | 1.9       | 1 – 9            | 5.0                      | 2.6       | 1 – 9            | 3.5       | 2.3       | 1 – 9            |
| Language input & parental reactions <sup>c</sup> | 4.8                | 2.0       | 1.3 – 9          | 6.0                      | 2.2       | 1 – 9            | 2.9       | 1.6       | 1 – 5.3          |
| Screen exposure <sup>d</sup>                     | 3.7                | 2.0       | 1 – 7.3          | 7.6                      | 1.7       | 3.3 – 9          | 3.1       | 1.9       | 1 – 6.3          |
| Medication & medical interventions <sup>e</sup>  | 2.8                | 1.4       | 1 – 5            | 3.7                      | 1.7       | 1 – 6.3          | 5.3       | 2.3       | 1 – 8.7          |
| Cognitive <sup>e</sup>                           | 2.8                | 1.3       | 1.3 – 6          | 5.0                      | 1.5       | 3 – 7            | 3.9       | 2.1       | 1 – 8.3          |
| Child characteristics <sup>e</sup>               | 4.3                | 2.1       | 1 – 8            | 5.4                      | 2.0       | 2 – 8            | 3.2       | 1.1       | 1.3 – 5          |

Note. Ratings are based on a 9-point scale.

<sup>a</sup>  $N = 54$ ; <sup>b</sup>  $N = 49$ ; <sup>c</sup>  $N = 28$ ; <sup>d</sup>  $N = 22$ ; <sup>e</sup>  $N = 10$ .

### Odnos atribucija uzroka djetetova poremećaja i negativnih emocionalnih stanja roditelja

Podaci su obrađeni u programu Mplus 8.10 (Muthen i Muthen, 1998-2017) tehnikom linearnog strukturalnog modeliranja (eng. *structural equation modelling*, SEM). U prvom koraku provedene su konfirmatorne faktorske analize kako bi se provjerila faktorska struktura rabljenih mjernih instrumenata. Za CDS-II skalu rezultati su potvrdili tri međusobno povezana faktora (trofaktorski model je pokazao odlično pristajanje:  $\chi^2(24) =$

### Relationship between parental causal attributions for their child's disorder and the parents' negative emotional states

The data were analysed with Mplus 8.10 (Muthen & Muthen, 1998-2017) using the structural equation modelling (SEM) technique. In a first step, confirmatory factor analyses were conducted to verify the factor structure of the scales used. For the CDS-II, the results confirmed that there were three correlated factors (the three-factor model showed an excellent fit:  $\chi^2(24) = 32.96$ ,  $p = .105$ ;  $\chi^2/df = 1.4$ ; CFI = .99; TLI = .98; RM-



32.96,  $p = .105$ ;  $\chi^2/df = 1.4$ ; CFI = .99; TLI = .98; RMSEA = .03, 90 % CI [0, .06]; SRMR = .04). Standardizirana faktorska zasićenja kretala su se od .48 do .83 za mjesto uzročnosti, od .77 do .84 za osobnu kontrolu te od .65 do .90 za stabilnost. Dobivena je značajna pozitivna korelacija između dimenzija mjesta uzročnosti i osobne kontrole ( $\varphi = .39$ ,  $p < .001$ ) te negativna između osobne kontrole i stabilnosti ( $\varphi = -.54$ ,  $p < .001$ ). Za DASS-21 skalu rezultati su ukazivali na jedan opći faktor. Naime, iako je trofaktorski model ( $\chi^2(186) = 261.47$ ,  $p < .001$ ;  $\chi^2/df = 1.4$ ; CFI = .99; TLI = .99; RMSEA = .04, 90 % CI [.03, .05]; SRMR = .05) pokazao nešto bolje pristajanje u odnosu na jednofaktorski ( $\chi^2(189) = 340.34$ ,  $p < .001$ ;  $\chi^2/df = 1.8$ ; CFI = .97; TLI = .97; RMSEA = .05, 90 % CI [.04, .06]; SRMR = .06), korelacije između tri faktora kretale su se od .83 do .91 te je stoga odabrano jednofaktorsko rješenje. Standardizirana faktorska zasićenja čestica u jednofaktorskom modelu kretala su se od .60 do .88.

Kako bi se za provedbu daljnjih analiza dobio povoljniji omjer broja sudionika i varijabli, čestice sa skale DASS-21 objedinjene su u tri parcele. Odabran je pristup homogenog parceliranja (vidi npr. Bagozzi i Heatherton, 1994; Little i sur., 2013), odnosno parcela reprezentativnih za facete (eng. *facet-representative parcelling*) kojim se konceptualno slične čestice grupiraju u iste parcele. Rezultat su pouzdaniji indikatori latentnog konstrukta (Bandalos i Finney, 2001). Parcele su kreirane tako da su izračunati prosječni rezultati na supskalama depresivnosti, anksioznosti i stresa. Budući da je unutar svake supskale udio vrijednosti koje nedostaju bio manji od 1 % te su one bile ravnomjerno raspoređene po česticama, prosječni rezultati za svakog sudionika izračunati su na temelju njegovih dostupnih odgovora (vidi Newman, 2014). Pouzdanost kreiranih parcela bila je visoka: ordinalni  $\alpha$  koeficijent za parcele depresivnost i stres iznosio je .93, a za anksioznost .91, dok je  $\omega$  koeficijent pouzdanosti za depresivnost i stres iznosio .94, a za anksioznost .92. Ove su se parcele rabile u daljnjim analizama kao indikatori latentnog konstrukta negativnih emocionalnih stanja, dok su se za dimenzije mjesta uzročnosti, podložnosti osobnoj kontroli i stabilnosti kao indikatori rabile tri čestice s odgo-

SEA = .03, 90% CI [0, .06]; SRMR = .04). The standardised factor loadings ranged from .48 to .83 for locus of causality, from .77 to .84 for personal controllability, and from .65 to .90 for stability. A significant positive correlation was found between the dimensions locus of causality and personal controllability ( $\varphi = .39$ ,  $p < .001$ ), while a negative correlation was observed between personal controllability and stability ( $\varphi = -.54$ ,  $p < .001$ ). For the DASS-21, the results showed one general factor. Although the three-factor model ( $\chi^2(186) = 261.47$ ,  $p < .001$ ;  $\chi^2/df = 1.4$ ; CFI = .99; TLI = .99; RMSEA = .04, 90% CI [.03, .05]; SRMR = .05) showed a slightly better fit compared to the one-factor model ( $\chi^2(189) = 340.34$ ,  $p < .001$ ;  $\chi^2/df = 1.8$ ; CFI = .97; TLI = .97; RMSEA = .05, 90% CI [.04, .06]; SRMR = .06), the correlation coefficients between the three factors were between .83 and .91, thus, the single-factor solution was retained. The standardised factor loadings in the one-factor model ranged from .60 to .88.

To obtain a more favourable subject-to-item ratio for further analyses, the DASS-21 items were grouped into three parcels. The homogeneous, i.e., facet-representative parcelling approach was chosen (see e.g., Bagozzi & Heatherton, 1994; Little et al., 2013), in which parcels are formed by grouping conceptually similar items. This leads to more reliable indicators of the latent construct (Bandalos & Finney, 2001). The parcels were formed by calculating the mean scores for the depression, anxiety, and stress subscales. As the proportion of missing values within each subscale was less than 1% and these were evenly distributed across the items, the mean scores for each participant were calculated as the average of the available responses (see Newman, 2014). The reliability of the three parcels was high: the ordinal  $\alpha$  coefficient for the depression and stress parcels was .93 and for anxiety was .91, while the  $\omega$  reliability coefficient for depression and stress was .94 and for anxiety was .92. These parcels were used in further analyses as indicators of the latent construct of negative emotional states. Individual items from the CDS-II subscales were used as indicators for the three dimensions - locus of

varajuće CDS-II supskale. Korelacije između svih manifestnih varijabli prikazane su u Tablici 3.

causality, personal controllability, and stability. The correlations between all manifest variables are shown in Table 3.

**Tablica 3.** *Korelacije između manifestnih varijabli (N = 331)* / **Table 3.** *Correlations between manifest variables (N = 331)*

| Variable | loc2   | loc3   | con1  | con2   | con3   | stab1   | stab2   | stab3   | dep   | anx    | stress | time    |
|----------|--------|--------|-------|--------|--------|---------|---------|---------|-------|--------|--------|---------|
| loc1     | .40*** | .23*** | .10   | .17**  | .14*   | .16**   | .02     | .07     | .003  | -.02   | -.02   | -.01    |
| loc2     | -      | .41*** | .18** | .28*** | .31*** | -.01    | .01     | -.06    | <.001 | .002   | -.01   | -.13*   |
| loc3     |        | -      | .03   | .13*   | .21*** | -.01    | -.01    | -.02    | .02   | -.01   | .03    | -.02    |
| con1     |        |        | -     | .62*** | .65*** | -.36*** | -.21*** | -.39*** | .02   | .003   | .002   | -.19*** |
| con2     |        |        |       | -      | .66*** | -.37*** | -.19*** | -.39*** | -.11  | -.09   | -.05   | -.16**  |
| con3     |        |        |       |        | -      | -.37*** | -.20*** | -.42*** | .01   | -.01   | .02    | -.21*** |
| stab1    |        |        |       |        |        | -       | .52***  | .70***  | .18** | .17**  | .18**  | .26***  |
| stab2    |        |        |       |        |        |         | -       | .59***  | .12*  | .18**  | .15**  | .15**   |
| stab3    |        |        |       |        |        |         |         | -       | .17** | .20*** | .16**  | .23***  |
| dep      |        |        |       |        |        |         |         |         | -     | .68*** | .78*** | -.01    |
| anx      |        |        |       |        |        |         |         |         |       | -      | .72*** | -.01    |
| stress   |        |        |       |        |        |         |         |         |       |        | -      | -.002   |

Note. loc1 – loc3 = items of the locus of causality subscale, con1 – con3 = items of the personal control subscale, stab1 – stab3 = items of the stability subscale, dep = mean score on the depression subscale, anx = mean score on the anxiety subscale, stress = mean score on the stress subscale, time = time since the child's diagnosis in years.

\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Sve manifestne varijable značajno su odstupale od normalne distribucije, no vrijednosti indeksa simetričnosti i spljoštenosti kretale su se unutar raspona od  $\pm 2$  (vidi George i Mallery, 2016), osim na varijablama depresivnosti i anksioznosti koje su pokazale nešto veća odstupanja, ali i dalje unutar prihvatljivih vrijednosti (simetričnost  $< 3$ , spljoštenost  $< 10$ ) za planirane analize (vidi npr. Kline, 2010). Zbog nezadovoljenosti uvjeta multivarijatne normalnosti, za procjenu strukturalnog modela odabrana je robusna inačica ML (eng. *maximum likelihood*) metode, odnosno MLR (vidi npr., Lai, 2018). Udio podataka koji nedostaju iznosio je 4.08 %, međutim Littleov (1988) MCAR test ukazuje da podaci nedostaju po slučaju ( $\chi^2(172) = 168.49, p = .562$ ) te je stoga za njihovo tretiranje odabrana metoda FIML (eng. *full information maximum likelihood*).

Prvo je procijenjen strukturalni model s jednom latentnom kriterijskom varijablom (negativna emocionalna stanja) te četiri prediktorske varijable, tri latentne (dimenzije mjesta uzročnosti, podložnosti osobnoj kontroli i stabilnosti) i jednom manifestnom (vrijeme od djetetove dijagnoze). Model je pokazao odlično pristajanje ( $\chi^2(56) = 62.76, p = .249$ ;  $\chi^2/df = 1.1$ ; CFI = .99; TLI = .99; RMSEA =

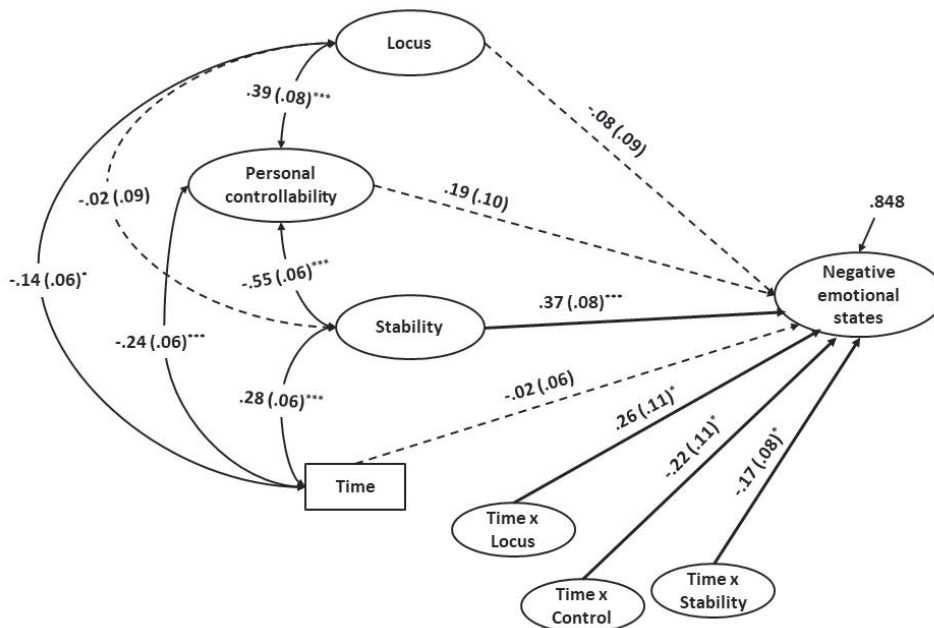
All manifest variables deviated significantly from the normal distribution, but skewness and kurtosis were within the range of  $\pm 2$  (see George & Mallery, 2016), except for the depression and anxiety variables, which showed larger deviations that remained within the acceptable range (skewness  $< 3$ , kurtosis  $< 10$ ) for planned analyses (see e.g., Kline, 2010). As multivariate normality was not met, a robust version of the maximum likelihood estimator (MLR; see e.g., Lai, 2018), was chosen for the SEM analyses. The proportion of missing data was 4.08%. However, Little's (1988) MCAR test showed that the data were missing at random ( $\chi^2(172) = 168.49, p = .562$ ), and therefore the full information maximum likelihood (FIML) method was chosen to handle missing data.

First, a structural model was estimated with one latent criterion variable (negative emotional states) and four predictor variables - three latent (dimensions of locus of causality, personal controllability, and stability) and one manifest variable (time since the child's diagnosis). The model showed an excellent fit ( $\chi^2(56) = 62.76, p = .249$ ;  $\chi^2/df = 1.1$ ; CFI = .99; TLI = .99; RMSEA =

.02, 90 % CI [0, .04]; SRMR = .03). Tri dimenzije uzročnih atribucija i vrijeme proteklo od djetetove dijagnoze zajedno su objasnili 8.1 % varijance u negativnim emocionalnim stanjima roditelja ( $R^2 = .081$ ,  $SE = .03$ ,  $p = .016$ ). Samo je percipirana stabilnost uzroka djetetova poremećaja imala značajan učinak na negativna emocionalna stanja roditelja ( $\beta = .35$ ,  $SE = .08$ ,  $p < .001$ ). Nakon toga u model su dodane tri interakcijske varijable. S pomoću naredbe XWITH definirane su interakcije između centrirane varijable vremena proteklog od djetetove dijagnoze i tri latentne dimenzije uzročnih atribucija. Model s dodanim interakcijama objasnio je 15.2 % varijance u negativnim emocionalnim stanjima roditelja ( $R^2 = .152$ ,  $SE = .06$ ,  $p = .006$ ). Interakcija s vremenom proteklom od djetetove dijagnoze bila je statistički značajna za sve tri dimenzije uzročnih atribucija (za mjesto uzročnosti  $\beta = .26$ ,  $SE = .11$ ,  $p = .016$ ; za podložnost osobnoj kontroli  $\beta = -.22$ ,  $SE = .11$ ,  $p = .040$ ; za stabilnost  $\beta = -.17$ ,  $SE = .08$ ,  $p = .026$ ). Model je prikazan na Slici 1.

child's diagnosis explained a total of 8.1% of the variance in parents' negative emotional states ( $R^2 = .081$ ,  $SE = .03$ ,  $p = .016$ ). Only the perceived stability of the cause of the child's disorder had a significant effect on the parents' negative emotional states ( $\beta = .35$ ,  $SE = .08$ ,  $p < .001$ ). Three interaction variables were then included in the model. The interactions were defined between the centred variable of time since the child's diagnosis and the three latent dimensions of causal attributions using the XWITH command. The model including the interactions explained 15.2% of the total variance in the parents' negative emotional states ( $R^2 = .152$ ,  $SE = .06$ ,  $p = .006$ ). The interaction with time since the child's diagnosis was significant for all three dimensions of causal attributions (for locus of causality  $\beta = .26$ ,  $SE = .11$ ,  $p = .016$ ; for personal controllability  $\beta = -.22$ ,  $SE = .11$ ,  $p = .040$ ; for stability  $\beta = -.17$ ,  $SE = .08$ ,  $p = .026$ ). The model is shown in Figure 1.

**Slika 1.** Rezultati regresijskog modela s interakcijskim varijablama ( $N = 331$ ) / **Figure 1.** Results of the regression model with interaction variables ( $N = 331$ )



*Note.* Time = time since the child's diagnosis in years; Time x Locus = interaction between time and the perceived locus of the cause of the child's disorder; Time x Control = interaction between time and the perceived personal controllability of the cause of the child's disorder; Time x Stability = interaction between time and the perceived stability of the cause of the child's disorder. The measurement models of the latent constructs are not shown for reasons of clarity. The standardised regression coefficients are shown with standard errors in parentheses.

\*\*\* $p < .001$ ; \* $p < .05$ .

Radi interpretacije interakcijskih učinaka, tri su interakcije grafički prikazane. Kako bi se odredilo na kojim vrijednostima vremena proteklog od djetetove dijagnoze je učinak pojedinih dimenzija uzročnih atribucija na negativna emocionalna stanja roditelja značajan, interakcijski učinci najprije su grafički prikazani s pomoću Johnson-Neyman metode (Johnson i Neyman, 1936). Prikazi na Slici 2 pokazuju moderirane učinke percipiranog a) mjesta uzročnosti, b) podložnosti uzroka osobnoj kontroli i c) stabilnosti uzroka djetetovog RJP-a na negativna emocionalna stanja roditelja duž cijelog raspona vremena proteklog od djetetove dijagnoze. Na osi x prikazan je raspon vrijednosti na moderatorskoj varijabli (vremenu od djetetove dijagnoze), a na osi y raspon vrijednosti za moderirani učinak pojedinih dimenzija uzročnih atribucija na negativna emocionalna stanja roditelja. Puna podebljana linija prikazuje nestandardizirane vrijednosti moderiranog učinka pojedine dimenzije uzročnih atribucija na negativna emocionalna stanja roditelja koje odgovaraju vrijednostima vremena proteklog od djetetove dijagnoze u rasponu od  $\pm 3$  standardne devijacije (*SD*). Iscrtkane zakrivljene linije prikazuju granice intervala pouzdanosti od 95 %. Ako vrijednost nula na moderiranom učinku pada unutar intervala pouzdanosti, učinak prediktorske varijable (određene dimenzije uzročnih atribucija), na kriterijsku varijablu (negativna emocionalna stanja) nije značajan na tim vrijednostima moderatora (vremena proteklog od djetetove dijagnoze). Odnosno, ako vrijednost nula na moderiranom učinku pada izvan intervala pouzdanosti, učinak prediktorske varijable na kriterijsku je značajan na tim vrijednostima moderatora.

Na temelju grafičkih prikaza ustanovljeno je da percipirano mjesto uzroka djetetova poremećaja ima značajan učinak na negativna emocionalna stanja roditelja samo na najnižim vrijednostima vremena proteklog od djetetove dijagnoze, odnosno unutar raspona vrijednosti od -3 do -1.2 *SD*, nakon čega učinak prestaje biti značajan. Vrijednosti od -1.2 *SD* odgovara vrijeme od otprilike osam mjeseci. Za percipiranu podložnost uzroka osobnoj kontroli također se pokazalo da je učinak značajan na nižim vrijednostima vremena pro-

In order to interpret the interaction effects, the three interactions were depicted graphically. To determine at which values of the time since the child's diagnosis the individual dimensions of the causal attributions had a significant effect on the parents' negative emotional states, the interactions were first plotted using the Johnson-Neyman method (Johnson & Neyman, 1936). The graphs in Figure 2 show the adjusted effects of perceived a) locus, b) personal controllability, and c) stability of the cause of the child's DLD on the parents' negative emotional states across all continuous values of time since the child's diagnosis. The x-axis shows the range of values for the moderator variable (time since the child's diagnosis) and the y-axis shows the range of values for the adjusted effect of each dimension of causal attributions on the parents' negative emotional states. The solid bold line shows the unstandardised values of the adjusted effect of each dimension of causal attributions on parents' negative emotional states, which correspond to values for time since the child's diagnosis between  $\pm 3$  standard deviations (*SDs*). The dashed curved lines show the 95% confidence interval. If the value zero of the adjusted effect is within the confidence interval, the effect of the predictor variable (specific dimension of causal attributions) on the criterion variable (negative emotional states) is not significant at these values of the moderator (time since the child's diagnosis). If the value zero of the adjusted effect lies outside the confidence interval, the effect of the predictor variable on the criterion variable is significant at these values of the moderator.

Visual inspection of the graphs revealed that the perceived locus of the cause of the child's disorder had a significant effect on the parents' negative emotional states only at the lowest values of time since the child's diagnosis, i.e., in the range from -3 to -1.2 *SD*, after which the effect was no longer significant. A value of -1.2 *SD* corresponds to a time of approximately 8 months after diagnosis. For the perceived personal controllability of the cause, the effect was also significant at lower values of time since the child's diagnosis, i.e., in a range from -3 to 0 *SD* that corresponds to up



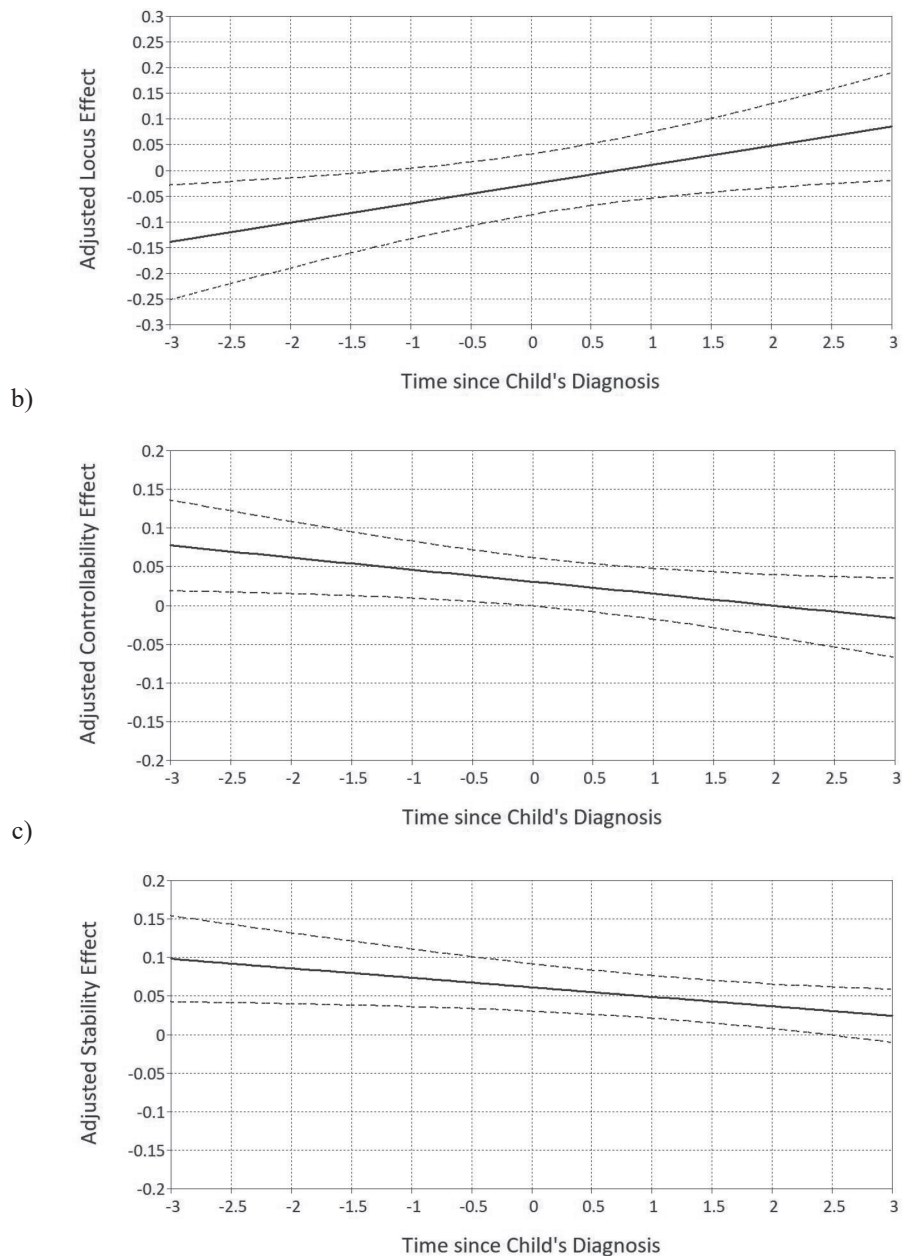
teklog od djetetove dijagnoze, konkretno unutar raspona vrijednosti od  $-3$  do  $0$  *SD* (tj. do vremena od tri godine i pet mjeseci nakon postavljanja dijagnoze). S druge strane, percipirana stabilnost uzroka imala je značajan učinak na skoro svim promatranim vrijednostima vremena proteklog od djetetove dijagnoze, tj. učinak prestaje biti značajan tek na  $+2.5$  *SD* (nakon devet godina i dva mjeseca od postavljanja dijagnoze).

Na Slici 3 grafički su prikazani učinci pojedinih dimenzija uzročnih atribucija na negativna emocionalna stanja roditelja na različitim razinama vremena proteklog od djetetove dijagnoze. S obzirom na ustanovljene vrijednosti moderatorске varijable na kojima je učinak pojedine dimenzije uzročnih atribucija na negativna emocionalna stanja bio značajan, odlučeno je da učinci budu prikazani na vrijednostima vremena od  $-1.5$ ,  $0$  i  $+1.5$  *SD*. Iz iste je slike vidljivo da je dimenzija mjesta uzročnosti imala slab negativan učinak na negativna emocionalna stanja samo na razini od  $-1.5$  *SD* vremena proteklog od djetetove dijagnoze. Objasnjavanje djetetovog poremećaja više unutarnjim uzrocima bilo je povezano s nižim razinama negativnih emocionalnih stanja kod roditelja. Za dimenziju podločnosti uzroka osobnoj kontroli također je vidljiv značajan učinak samo na razini od  $-1.5$  *SD* vremena proteklog od djetetove dijagnoze (na razini od  $0$  *SD* učinak više nije značajan), ali učinak je bio pozitivan, odnosno objašnjavanje djetetovog poremećaja uzrocima koji su podložniji osobnoj kontroli bilo je povezano s višim razinama negativnih emocionalnih stanja kod roditelja. Što se tiče dimenzije stabilnosti, iako je učinak bio značajan na svim odabranim razinama vremena proteklog od djetetove dijagnoze, grafički prikaz ukazuje na to da je učinak slabiji što je više vremena prošlo. Dobiven je pozitivan učinak, odnosno objašnjavanje djetetovog poremećaja stabilnijim uzrocima bilo je povezano s višim razinama negativnih emocionalnih stanja kod roditelja.

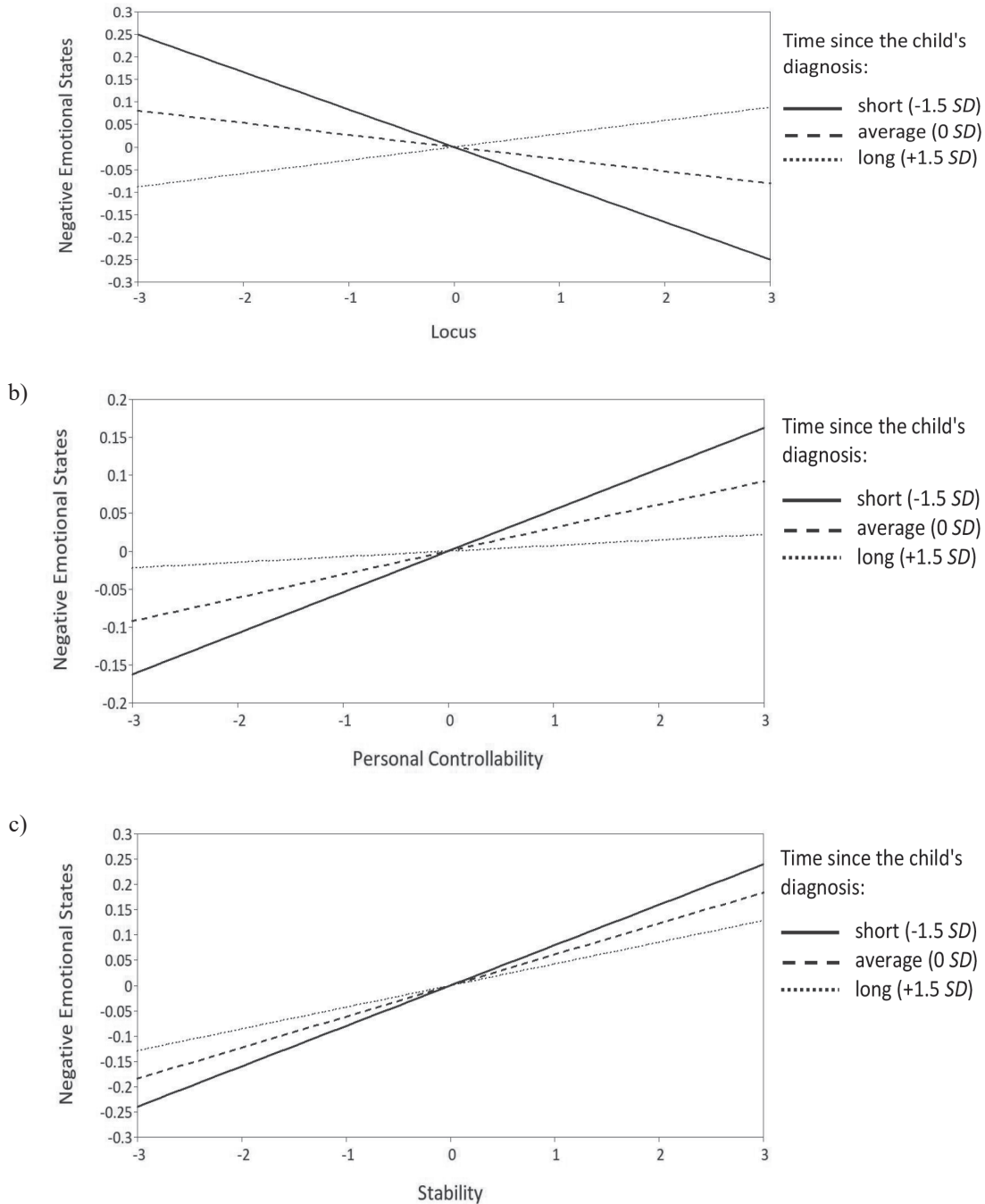
to 3 years and 5 months after diagnosis. On the other hand, the perceived stability of the cause had a significant effect at almost all observed values of time since the child's diagnosis, i.e., the effect was no longer significant at  $+2.5$  *SD* (after approximately 9 years and 2 months after diagnosis).

Figure 3 shows the effects of the individual dimensions of the causal attributions on the parents' negative emotional states at different levels of time since the child's diagnosis. Based on the observed values of the moderator variable, where the effects of each dimension of causal attributions on negative emotional states were significant, the effects of the individual dimensions of the causal attributions were plotted at  $-1.5$ ,  $0$ , and  $+1.5$  *SD*. The same figure shows that the dimension of locus of causality only had a weak negative effect on negative emotional states at  $-1.5$  *SD* of time since the child's diagnosis. Attributing more internal causes to the child's disorder was associated with lower levels of negative emotional states in parents. The dimension of personal controllability also showed a significant effect only at  $-1.5$  *SD* of time since the child's diagnosis (the effect was no longer significant at  $0$  *SD*), but the effect was positive, indicating that attributing more personally controllable causes to the child's disorder was associated with higher levels of negative emotional states in parents. The stability dimension had a significant effect at all selected levels of time since the child's diagnosis, but the graph suggests a weaker effect the more time had passed since the child's diagnosis. The effect was positive, suggesting that attributing more stable causes to the child's disorder was associated with higher levels of negative emotional states in parents.

**Slika 2.** Johnson-Neyman grafički prikazi moderiranih učinaka percipiranih a) mjesta uzročnosti, b) podložnosti uzroka osobnoj kontroli i c) stabilnosti uzroka djetetova poremećaja na negativna emocionalna stanja roditelja / **Figure 2.** Johnson-Neyman plots of the adjusted effects of perceived a) locus, b) personal controllability, and c) stability of the cause of the child's disorder on parents' negative emotional states



**Slika 3.** Učinci percipiranih a) mjesta uzročnosti, b) podložnosti uzroka osobnoj kontroli i c) stabilnosti uzroka djetetova poremećaja na negativna emocionalna stanja roditelja na različitim razinama vremena proteklog od djetetove dijagnoze / **Figure 3.** Effects of perceived a) locus, b) personal controllability, and c) stability of the cause of the child's disorder on parents' negative emotional states at different levels of time since the child's diagnosis



## RASPRAVA

Iako istraživanja ukazuju na to da atribucije uzroka djetetove bolesti ili razvojnog poremećaja mogu imati bitnu ulogu u prilagodbi roditelja, rezultati nisu jednoznačni (vidi npr. Affleck i sur., 1985; Bearison i sur., 1993; Hall i sur., 1997; Mickelson i sur., 1999; Tennen i sur., 1986). Također, dosadašnja istraživanja odnosa atribucija uzroka i prilagodbe roditelja prvenstveno su se bavila roditeljima djece s malignim ili drugim kroničnim bolestima, intelektualnim teškoćama, poremećajem iz spektra autizma ili tjelesnim invaliditetom, zbog čega je mogućnost generalizacije zaključaka na druge populacije ograničena, primjerice na one kod kojih je poremećaj percipiran kao onaj koji ostavlja manje posljedice na djetetov razvoj i zdravlje. Stoga je ovo istraživanje htjelo provjeriti ove odnose na uzorku roditelja djece s dijagnozom RJP-a, populacije koja do sada nije istraživana u tom pogledu.

Roditelji djetetovo stanje obično objašnjavaju većim brojem uzroka koji variraju ovisno o djetetovoj dijagnozi (Mickelson i sur., 1999). U provedenom istraživanju, roditelji su djetetov RJP pripisivali raznovrsnim uzrocima koji variraju od genetskih, zdravstvenih i različitih prenatalnih i perinatalnih rizičnih čimbenika do djetetovih karakternih osobina i roditeljskih postupaka. Dobivene kategorije odgovora slične su onima koje su dobili Marshall i suradnici (2007), koji su ispitali kojim uzrocima roditelji pripisuju djetetovo jezično kašnjenje. No treba napomenuti da oko 30 % sudionika nije navelo konkretan uzrok koji pripisuju djetetovom RJP-u. Moguć je razlog da neki sudionici nikada nisu razmišljali o uzroku djetetovog RJP-a. Naime, suprotno stajalištu atribucijskih teoretičara da su ljudi motivirani za traženjem uzroka nepoželjnih ishoda, pojedina istraživanja ukazuju da se neki pojedinci ne upuštaju u atribucijsku analizu (vidi npr. Downey i sur., 1990).

Sudionici ovog istraživanja RJP svog djeteta u najvećoj su mjeri pripisivali genetskim čimbenicima (24 %) te različitim prenatalnim i perinatalnim rizičnim čimbenicima (21.8 %), dok 2.7 % roditelja smatra da se radi o običnom kašnjenju u razvoju. Oko 22 % navodi uzrok povezan s roditeljskim

## DISCUSSION

Although previous studies suggest that causal attributions for the child's illness or developmental disorder may play an important role in parental adjustment, the results are inconclusive (see e.g., Affleck et al., 1985; Bearison et al., 1993; Hall et al., 1997; Mickelson et al., 1999; Tennen et al., 1986). Furthermore, previous research on the relationship between causal attributions and parental adjustment has mainly focused on parents of children with cancer or other chronic illnesses, intellectual disabilities, autism spectrum disorders, or physical disabilities, which limits the generalisability of the results to other populations, such as those where the disorder is perceived as less consequential for the child's development and health. The present study, therefore, investigated these relationships in a sample of parents of children diagnosed with DLD, a population that has not been studied previously in this regard.

Parents usually attribute a number of causes for their child's condition, which vary depending on the child's diagnosis (Mickelson et al., 1999). In the present study, parents attributed their child's DLD to a variety of causes ranging from genetic, health-related, as well as various prenatal and perinatal risk factors to the child's character traits and the parents' behaviour. The response categories obtained are similar to those of Marshall et al. (2007), who investigated parental causal attributions for children's speech and language delay. However, it should be noted that approximately 30% of participants in the present study did not indicate a specific cause for their child's DLD. The possible reason for this is that some participants never thought about the cause of their child's DLD. Contrary to the view of attribution theorists that people are motivated to look for the causes of negative outcomes, some research suggests that some people do not engage in attributional analysis (see e.g., Downey et al., 1990).

Participants in the present study attributed their child's DLD mainly to genetic factors (24%) and various pre- and peri-natal risk factors (21.8%), while 2.7% of participants believed it was merely a developmental delay. About 22% attributed it to



postupcima (npr. nepravovremeno ispravljanje pogrešaka, premalo govorenja i čitanja djetetu, pretjerano i prerano izlaganje ekranima i sl.). Iako točan uzrok RJP-a nije poznat, smatra se da je poremećaj rezultat interakcije različitih genetskih i okolinskih rizičnih čimbenika (Bishop, 2006). Ovom gledištu najviše odgovaraju odgovori koji su bili najzastupljeniji, tj. genetski čimbenici te prenatalni i perinatalni rizični čimbenici, što bi moglo biti povezano s javnim kampanjama za podizanje svjesnosti i informiranje javnosti o RJP-u (npr. RADLD na međunarodnoj razini i PSRJP u Hrvatskoj). Ipak, postoci odgovora u drugim kategorijama ukazuju da mnogi roditelji poremećaj objašnjavaju uzrocima za koje ne postoje dokazi, što ukazuje na daljnju potrebu za individualnim informiranjem i educiranjem roditelja, ali i šire javnosti o prirodi ovog poremećaja. Može se uočiti da je prosječno vrijeme od postavljanja djetetove dijagnoze bilo najkraće kod sudionika koji su poremećaj pripisivali roditeljskim postupcima te djetetovim osobinama ( $M = 2.5$  godina). Moguće je da su ove atribucije uzroka povezane sa slabijom informiranošću roditelja u početnom periodu nakon primanja nove dijagnoze.

Procjene uzroka na dimenzijama mjesta uzročnosti, podložnosti osobnoj kontroli i stabilnosti ukazuju da roditelji različito doživljavaju uzroke, čak i unutar iste sadržajne kategorije. Iako neke kategorije, primjerice prenatalni i perinatalni rizični čimbenici, uključuju raznolikije odgovore (od uzroka vezanih za majku do uzroka vezanih za porod i liječničke postupke), što bi mogao biti razlog velikog varijabiliteta procjena, veliki se varijabilitet može uočiti i kod užitih kategorija, kao što su primjerice genetski čimbenici. Mjesto uzročnosti općenito je za sve uzroke u prosjeku procjenjivano kao vanjsko, pri čemu je za kategorije lijekovi i medicinski zahvati u ranoj dobi te kognitivni čimbenici (djetetove kognitivne sposobnosti) procijenjeno kao najviše vanjsko. Izloženost ekranima te neadekvatan jezični unos i reakcije roditelja procijenjeni su kao uzroci najpodložniji osobnoj kontroli, dok su prenatalni i perinatalni rizični čimbenici percipirani kao najmanje podložni kontroli, nakon čega slijede genetski čimbenici. Genetski su čimbenici pro-

parental behaviour (e.g., not correcting mistakes in time, not talking or reading to the child enough, exposing the child to too much screen time too early, etc.). Although the exact cause of DLD is not known, it is thought to be the result of the interaction of various genetic and environmental risk factors (Bishop, 2006). The responses with the highest frequency, i.e., genetic factors and various pre- and peri-natal risk factors, are most consistent with this view, which may be related to public campaigns to raise awareness and inform the public about DLD (e.g., RADLD at international level and PSRJP in Croatia). However, the frequency of responses in the other categories indicates that many parents attribute causes for which there is no evidence, suggesting that parents, as well as the public, need to be informed and educated further about the nature of this disorder. It can be noticed that the average time since the child's diagnosis was shortest for participants who attributed the child's DLD to the parents' behaviour and the child's characteristics ( $M = 2.5$  years). It is possible that these causal attributions are related to lower levels of awareness in the initial phase after receiving the new diagnosis.

The ratings of locus, personal controllability, and stability of causes indicate that parents perceived causes differently, even within the same category. Although some categories, such as pre- and peri-natal risk factors, included a broader range of responses (from causes related to the mother to causes related to the birth and the doctor's actions), which may be one reason for the high variability in ratings, high variability was also observed within narrower categories, such as genetic factors. On average, the locus of all causes was rated as external, with medication and medical interventions in early childhood and cognitive factors (the child's cognitive abilities) rated as the most external causes. Screen exposure, as well as inadequate language input and parental reactions, were rated as the most personally controllable causes, while pre- and peri-natal risk factors were rated as the least controllable, followed by genetic factors. Genetic factors were also found to be the most stable, while inadequate language input and parental reactions, screen exposure and

cijenjeni i kao najstabilniji, dok su neadekvatan jezični unos i reakcije roditelja, izloženost ekranima te osobine djeteta procijenjeni kao najmanje stabilni. Sukladno ovim rezultatima, istraživanje koje je proveo Boyle (2016) također je pokazalo da pojedinci za biološke uzročne atribucije procjenjuju veću stabilnost i manje osobne kontrole.

Za razliku od većine ranih istraživanja atribucija uzroka i prilagodbe na nepoželjne životne ishode, cilj ovog istraživanja nije bio povezati negativne emocionalne doživljaje roditelja s konkretnim uzrocima koje pripisuju djetetovom RJP-u, nego s temeljnim svojstvima tih uzroka. Polazna osnova istraživanja bila je Weinerova (1985) teorija, koja pretpostavlja da reakcije na nepoželjan ishod ne ovise o konkretnim percipiranim uzrocima, nego kako pojedinci te uzroke pozicioniraju na dimenzijama mjesta uzročnosti, podložnosti kontroli i stabilnosti. Sukladno prethodnim rezultatima (npr. Boyle, 2016; Robinson, 2001; Roesch i Weiner, 2001), pretpostavljeno je da će roditelji koji donose uzročne atribucije koje su unutarnje stabilne i nepodložne osobnoj kontroli pokazivati slabiju prilagodbu. U modelu bez interakcijskih varijabli samo je percipirana stabilnost uzroka djetetova poremećaja bila značajno povezana s razinom negativnih emocionalnih stanja kod roditelja, odnosno roditelji koji uzrok djetetovog RJP-a procjenjuju stabilnijim, izvještavali su o višim razinama depresivnosti, anksioznosti i stresa. Percipirano mjesto uzročnosti i osobna kontrola nad uzrokom nisu bili značajno povezani s razinom negativnih emocionalnih stanja kod roditelja na prosječnoj razini moderatorske varijable, tj. vremena proteklog od djetetove dijagnoze.

Međutim, u ovom je istraživanju vrijeme proteklo od postavljanja djetetove dijagnoze znatno variralo, a kao što je spomenuto, uzročne atribucije i kako ih pojedinci doživljavaju s obzirom na dimenzije mjesta uzročnosti, podložnosti kontroli i stabilnosti, mogu se s vremenom mijenjati. Rezultati ovog istraživanja ukazuju na pozitivnu povezanost dimenzije stabilnosti te negativnu povezanost dimenzija mjesta uzročnosti i podložnosti uzroka osobnoj kontroli s vremenom proteklom od djetetove dijagnoze. Roditelji kod kojih je prošlo više vremena od djetetove dijagnoze procjenjivali

child characteristics were found to be the least stable. Consistent with these results, a study by Boyle (2016) also showed that individuals associate greater stability and less personal control with biological causal attributions.

In contrast to most previous studies on causal attributions and adaptation to negative life events, the aim of the present study was not to link parents' negative emotional states to the specific causes they attribute for their child's DLD, but to the underlying characteristics of these causes. The theoretical basis of the study was Weiner's (1985) theory, which assumes that reactions to negative outcomes are not determined by the specific perceived causes, but by how individuals position these causes on the dimensions of locus of causality, controllability, and stability. Consistent with previous findings (e.g., Boyle, 2016; Robinson, 2001; Roesch & Weiner, 2001), it was hypothesised that parents who make internal, stable, and personally uncontrollable causal attributions will show weaker adjustment. In the model without interaction variables, only the perceived stability of the cause of the child's disorder was significantly related to parents' negative emotional states, i.e., parents who rated the cause of the child's DLD as being more stable reported higher levels of depression, anxiety, and stress. Perceived locus of causality and personal controllability of the cause were not significantly associated with parents' negative emotional states at the average level of the moderator variable, i.e., time since the child's diagnosis.

However, the time since the child's diagnosis varied considerably in the present study and, as mentioned earlier, causal attributions and the way individuals perceive them in terms of the dimensions of locus, controllability, and stability may change over time. The findings of the present study indicate a positive relationship of the stability dimension and a negative relationship of the locus and personal controllability dimensions with time since the child's diagnosis. Parents tended to rate the cause of DLD as more stable, external, and less personally controllable when a longer period of time had passed since the child's diagnosis. Although the correlations found were

su uzrok RJP-a stabilnijim, više vanjskim te manje podložnim osobnoj kontroli. Iako su dobivene korelacije niske, ukazuju na to da se roditeljske percepcije uzroka djetetova poremećaja razlikuju ovisno o tome koliko je vremena prošlo od dijagnoze poremećaja. Kao što je ranije spomenuto, sudionici čije je dijete tek nedavno dijagnosticirano bili su skloniji pripisati RJP vlastitom ponašanju. U prosjeku su ove uzroke u većoj mjeri procjenjivali unutarnjima, nestabilnijima te podložnijima osobnoj kontroli. Moguće je da je pomak s ovih početnih uzročnih atribucija, kod kojih je odgovornost za poremećaj na roditeljima, na uzroke koji su više vanjski i manje podložni osobnoj kontroli odraz prilagodbe roditelja na djetetovu dijagnozu tijekom vremena. Pomak s početnih uzročnih atribucija na druga uzročna objašnjenja do kojeg dolazi tijekom vremena može biti povezan s informiranjem roditelja i postupnim boljim razumijevanjem poremećaja. Također je moguće da u početnim stadijima nakon postavljanja dijagnoze roditelji RJP doživljavaju kao nešto što se može ispraviti govornom i jezičnom terapijom, zbog čega su skloniji poremećaj pripisivati nestabilnijim uzrocima. S vremenom, nakon spoznaje da je poremećaj trajan, njihova percepcija stabilnosti uzroka RJP-a može se promijeniti.

Visina povezanosti između uzročnih atribucija i prilagodbe na nepoželjan ishod također se može mijenjati tijekom vremena (za detaljniju raspravu, vidi Downey i sur., 1990). Stoga je cilj ovog istraživanja bio i provjeriti razlikuje li se odnos atribucija uzroka djetetova poremećaja i negativnih emocionalnih stanja roditelja ovisno o vremenu koje je prošlo od djetetove dijagnoze. Rezultati su pokazali značajnu interakciju svih dimenzija uzročnih atribucija s vremenom proteklom od djetetove dijagnoze. Kao što je vidljivo iz Slike 2, ustanovljen je značajan učinak percipiranog mjesta uzročnosti na negativna emocionalna stanja roditelja samo na najnižim vrijednostima vremena (do  $-1.2 SD$ ), za percipiranu podložnost osobnoj kontroli je također dobiven značajan učinak samo na nižim vrijednostima vremena (do  $0 SD$ ), dok je percipirana stabilnost imala značajan učinak na skoro svim promatranim vrijednostima vremena, tj. učinak nije bio značajan tek na  $+2.5 SD$ . Među-

small, they suggest that parental perceptions of the cause of the child's disorder vary depending on how much time has passed since the disorder was diagnosed. As mentioned above, participants whose child had recently been diagnosed were more likely to attribute DLD to their own behaviour. On average, parents rated these causes as more internal, less stable, and more personally controllable. It is possible that the shift from these initial causal attributions ascribing responsibility for the disorder to parents to causes that are more external and less personally controllable reflects parents' adaptation to the child's diagnosis over time. The shift from initial causal attributions to other causal explanations over time may be related to parental education and an increasingly better understanding of the disorder. It is also possible that in the initial stages after the diagnosis, parents perceive DLD as something that can be remedied with speech and language therapy, so they tend to attribute the disorder to less stable causes. Over time, after realising that the disorder is permanent, their perception of the stability of the cause of DLD may change.

Furthermore, the strength of the relationships between causal attributions and adjustment to a negative outcome may also change over time (for a more detailed discussion, see Downey et al., 1990). Therefore, the present study also aimed to examine whether the relationships between the causal attributions for the child's disorder and the parents' negative emotional states differed as a function of time since the child's diagnosis. All three dimensions of causal attributions showed a significant interaction with time since the child's diagnosis. As shown in Figure 2, a significant effect of perceived locus of causality on parents' negative emotional states was found only at the lowest time values (up to  $-1.2 SD$ ), perceived personal controllability also showed a significant effect only at lower time values (up to  $0 SD$ ), whereas perceived stability had a significant effect at almost all observed values of time since the child's diagnosis, i.e., the effect was significant up to  $+2.5 SD$ . However, as can be seen in Figure 3, the stability dimension also showed a somewhat weaker effect the more time had elapsed since the

tim, kao što je vidljivo iz Slike 3, i za dimenziju stabilnosti može se uočiti trend slabljenja učinka s prolaskom vremena od djetetove dijagnoze. Dakle, dobiveni rezultati potvrđuju pretpostavku da bi atribucije uzroka mogle imati snažniji učinak na prilagodbu pojedinaca na nepoželjne ishode u ranijim fazama prilagodbe, što je sukladno i nekim prijašnjim nalazima (npr. Bulman i Wortman, 1977; Schulz i Decker, 1985).

Što se tiče smjera dobivenih povezanosti, rezultati samo djelomično potvrđuju postavljenu hipotezu. Sukladno polaznoj hipotezi i prijašnjim nalazima (npr. Robinson, 2001; Roesch i Weiner, 2001) dobivena je pozitivna povezanost percipirane stabilnosti uzroka djetetova poremećaja i negativnih emocionalnih stanja roditelja. No za podložnost uzroka osobnoj kontroli i mjesto uzročnosti dobivene su suprotne povezanosti od pretpostavljenog. Percepcija osobne kontrole nad uzrokom djetetovog jezičnog poremećaja bila je pozitivno povezana s negativnim emocionalnim stanjima kod roditelja kod kojih je prošlo do tri godine i pet mjeseci od djetetove dijagnoze. Roditelji koji uzrok RJP-a percipiraju podložnijim osobnoj kontroli izvještavali su o višim razinama depresivnosti, anksioznosti i stresa. Bitno je napomenuti da postoje dvije suprotstavljene hipoteze o odnosu dimenzije osobne kontrole i prilagodbe pojedinca na nepoželjan ishod. Prva hipoteza pretpostavlja da je viša osobna kontrola nad uzrokom nepoželjnog ishoda povezana s boljom prilagodbom pojedinca. Naime, percepcija veće mogućnosti kontrole nad uzrokom vlastite ili djetetove bolesti ili stanja kod osoba može dovesti do vjerovanja da imaju veću mogućnost djelovanja na vlastito ili djetetovo stanje, što olakšava prilagodbu. Druga hipoteza pretpostavlja da je viša osobna kontrola nad uzrokom nepoželjnog ishoda povezana s lošijom prilagodbom. Ovo se povezuje s višim samookrivljavanjem za nepoželjan ishod, odnosno pretpostavka je da pojedinci koji nepoželjne životne ishode pripisuju uzrocima podložnima osobnoj kontroli osjećaju više odgovornosti i krivnje za ishod, što ostavlja negativne psihičke posljedice na pojedinca. Ova je pretpostavka sukladna nalazima istraživanja odnosa uzročnih atribucija i reakcija socijalne okoline prema razli-

child's diagnosis. The results obtained thus confirm the hypothesis that causal attributions may have a stronger effect on individuals' adjustment to negative outcomes in earlier stages of adaptation, which is consistent with some previous findings (e.g., Bulman & Wortman, 1977; Schulz & Decker, 1985).

As far as the direction of the relationships obtained is concerned, the results only partially confirm the hypothesis. Consistent with the study hypothesis and some previous findings (e.g., Robinson, 2001; Roesch & Weiner, 2001), a positive relationship was found between the perceived stability of the cause of the child's disorder and the parents' negative emotional states. However, contrasting relationships to the hypotheses were found for personal controllability and locus of causality. Perceived personal controllability of the cause of the child's language disorder was positively related to parents' negative emotional states when the time since the child's diagnosis was up to 3 years and 5 months. Parents who considered the cause of DLD to be more personally controllable reported higher levels of depression, anxiety, and stress. It is important to point out that there are two opposing hypotheses about the relationship between the dimension of personal control and an individual's adjustment to a negative outcome. The first hypothesis assumes that greater personal control over the cause of the negative outcome is associated with better adaptation of the individual. Namely, the perception that individuals have more control over the cause of their own or their child's illness or condition could lead them to believe that they can better influence their own or their child's condition, which facilitates adaptation. The second hypothesis assumes that greater personal controllability of the cause of the negative outcome is associated with poorer adjustment. This is related to higher self-blame for a negative outcome, i.e., it is assumed that individuals who attribute negative life outcomes to personally controllable causes feel more responsible and guilty for the outcome, which has negative psychological consequences for the individual. This hypothesis is consistent with research findings on the relationship between causal



čitim stigmatiziranim skupinama (vidi npr. Weiner i sur., 1988), gdje se konzistentno pokazalo da je pripisivanje nečijeg stanja ili bolesti uzrocima koji su podložni njihovoj osobnoj kontroli povezano s negativnijim reakcijama okoline.

Rezultati ovog istraživanja pokazali su pozitivnu povezanost između percipirane podložnosti uzroka djetetovog RJP-a osobnoj kontroli i negativnih emocionalnih stanja roditelja, što ide u prilog drugoj hipotezi. Drugim riječima, pripisivanje djetetovog RJP-a uzrocima koji su percipirani kao podložniji roditeljskoj kontroli povezano je s lošijim mentalnim zdravljem roditelja. Kao što je navedeno, kao najpodložniji osobnoj kontroli procijenjeni su uzroci vezani za roditeljske postupke, odnosno neadekvatan jezični unos i reakcije roditelja te izlaganje djeteta ekranima. Iako od sudionika nisu prikupljene procjene osobne odgovornosti i krivnje za djetetov jezični poremećaj, moguće je da je pripisivanje RJP-a ovim uzrocima povezano s doživljajima osobne odgovornosti i samookrivljavanja, što posljedično dovodi do slabije prilagodbe roditelja. Međutim, učinak percipirane podložnosti uzroka djetetovog RJP-a osobnoj kontroli na negativna emocionalna stanja roditelja bio je značajan samo u ranijem stadiju prilagodbe na djetetovu dijagnozu, što sugerira da roditelji preispituju vlastitu ulogu u razvoju djetetovog poremećaja u ovom početnom stadiju. Ovo ukazuje na važnost informiranja roditelja o aktualnim spoznajama o uzrocima RJP-a prilikom saopćavanja djetetove dijagnoze, što im može pomoći u mijenjanju početnih neadaptivnih uzročnih atribucija.

Konačno, što se tiče dimenzije mjesta uzročnosti, rezultati ukazuju na negativnu povezanost mjesta uzroka djetetovog RJP-a s negativnim emocionalnim stanjima roditelja, odnosno roditelji koji su uzrok poremećaja procjenjivali više unutarnjim, izvještavali su o nižim razinama depresivnosti, anksioznosti i stresa. Rezultati istraživanja koje su proveli Roesch i Weiner (2001) ukazuju na to da unutarnje mjesto uzročnosti može biti i pozitivno i negativno povezano s prilagodbom na bolest ili medicinsko stanje, ovisno o tome jesu li ti uzroci percipirani kao stabilni ili nestabilni, odnosno kao podložni ili nepodložni

attributions and public reactions towards various stigmatised groups (see e.g., Weiner et al., 1988), where it has been consistently shown that attributing personally controllable causes for one's condition or illness is associated with more negative public reactions.

The results of the present study showed a positive relationship between perceived personal controllability of the cause of the child's DLD and parents' negative emotional states, supporting the second hypothesis. In other words, attributing the child's DLD to causes perceived to be more under parental control is associated with poorer parental mental health. As mentioned earlier, the causes related to parental behaviour, i.e., inadequate language input and parental reactions, and screen exposure, were rated as the most personally controllable. Although the ratings of personal responsibility and self-blame for the child's language disorder were not collected from participants, it is possible that attributing DLD to these causes is related to experiences of personal responsibility and self-blame, consequently leading to poorer parental adjustment. However, the effect of the perceived personal controllability of the cause of the child's DLD on parents' negative emotional states was only significant at earlier stages after the child's diagnosis, suggesting that parents question their own role in the development of the child's disorder at this initial stage. This points to the importance of informing parents of the current state of knowledge about the causes of DLD when communicating the child's diagnosis, which may help them to change their initial maladaptive causal attributions.

Finally, regarding the dimension of locus of causality, the results suggest a negative relationship between the locus of the cause of the child's DLD and parents' negative emotional states, i.e., parents who perceived the cause of the disorder as being more internal reported lower levels of depression, anxiety, and stress. The findings of Roesch and Weiner (2001) suggest that the internal locus of causality may be both positively and negatively associated with adjustment to the illness or medical condition, depending on whether these causes are perceived as stable or unstable

ni osobnoj kontroli. Drugim riječima, dimenzije stabilnosti i podložnosti uzroka osobnoj kontroli pokazale su se bitnijima u predviđanju prilagodbe pojedinaca na nepoželjan životni ishod. U ovom istraživanju, mjesto uzročnosti imalo je značajan učinak na negativna emocionalna stanja samo kod roditelja kod kojih je prošlo do osam mjeseci od djetetove dijagnoze. U ovoj skupini, roditelji koji su RJP pripisivali genetskim čimbenicima, odnosno uzrocima koji su u prosjeku procijenjeni najviše unutarnjima, imali su nižu prosječnu procjenu stabilnosti uzroka u odnosu na rezultat dobiven na cijelom uzorku. S druge strane, roditelji koji su RJP pripisivali prenatalnim i perinatalnim rizničnim čimbenicima, odnosno uzrocima koji su u prosjeku procijenjeni najviše vanjskima, imali su višu prosječnu procjenu stabilnosti uzroka u odnosu na rezultat dobiven na cijelom uzorku. Moguće je da je dobiveni rezultat za mjesto uzročnosti povezan s time kako su roditelji percipirali stabilnost uzroka.

Dobivene rezultate treba tumačiti u okviru ograničenja provedenog istraživanja. S obzirom na to da se radi o transverzalnom korelacijskom istraživanju, nije moguće donositi zaključke o uzročnosti i smjeru odnosa. Iako je pretpostavka da atribucije uzroka nepoželjnih životnih ishoda određuju naše reakcije na te ishode, moguće je i alternativno objašnjene, odnosno da su pojedinci narušenog mentalnog zdravlja skloniji donošenju neadaptivnih uzročnih atribucija. Longitudinalno istraživanje odnosa atribucija uzroka velikih stresnih životnih događaja i depresivnosti koje su na uzorku adolescenata proveli Brown i Siegel (1988) ide u prilog prvoj pretpostavci. Ipak, rezultate ovog istraživanja trebalo bi provjeriti daljnjim longitudinalnim istraživanjima. Također, na temelju dobivenih rezultata moguće je zaključivati samo o razlikama u uzročnim atribucijama i njihovim odnosima s emocionalnim stanjima roditelja ovisno o vremenu koje je prošlo od djetetove dijagnoze, no potrebna su longitudinalna istraživanja kako bi se donijeli jasniji zaključci o promjenama u uzročnim atribucijama i njihovim odnosima s prilagodbom roditelja tijekom vremena.

and personally controllable or not. In other words, the dimensions of stability and personal controllability of the cause were found to be more important in predicting an individual's adjustment to negative life events. In the present study, the locus of the cause had a significant effect on negative emotional states only in the group of parents whose child had been diagnosed within the last 8 months. In this group, the parents who attributed DLD to genetic factors, i.e., the causes rated on average as being most internal, had a lower mean rating of cause stability compared to the result obtained for the entire sample. On the other hand, the parents who attributed DLD to pre- and peri-natal risk factors, i.e., the causes rated on average as being most external, had a higher mean rating of cause stability compared to the result obtained for the entire sample. It is possible that the results obtained for the locus of causality is related to how the parents perceived the stability of the cause.

The present study has some limitations that should be taken into account when interpreting the results. Since it is a correlational cross-sectional study, it is not possible to draw conclusions about the causality and direction of the relationships. Although it is assumed that causal attributions for negative life events determine our reactions to these outcomes, an alternative explanation is also possible, namely that individuals with impaired mental health are more likely to make maladaptive causal attributions. The first hypothesis is supported by the longitudinal study conducted by Brown and Siegel (1988) on the relationship between causal attributions for major stressful life events and depression in a sample of adolescents. However, the results of the present study should be investigated further through longitudinal studies. Furthermore, based on the results obtained, conclusions can be drawn only about the differences in causal attributions and their relationships with parents' emotional states as a function of time since the child's diagnosis. However, longitudinal studies are needed to draw clearer conclusions about changes in causal attributions and their relationship to parental adjustment over time.

Treba napomenuti da su sudionici u prosjeku postigli nizak rezultat na skali DASS-21 kojom su mjerena negativna emocionalna stanja roditelja ( $M = 0.42$ ,  $SD = 0.42$ , raspon 0 do 2.14). Ovaj smanjeni varijabilitet u odgovorima mogao je dovesti do podcijenjenih korelacija. S obzirom na to da se radi o roditeljima djece s razvojnim poremećajem, za koje se pokazalo da doživljavaju više stresa i negativnih emocija od roditelja djece urednog razvoja (vidi npr. Hastings, 2002; Hsiao, 2018; Lee, 2013), ovaj rezultat nije očekivan. Razina roditeljskog stresa može varirati ovisno o tipu i težini dijagnoze (vidi npr. Hayes i Watson, 2013). Primjerice, u istraživanju koje je provela Šaško (2021) ustanovljeno je da su roditelji djece s jezično-govorno-glasovnim poremećajima pokazivali najnižu razinu roditeljskog stresa u usporedbi s ostalim ispitanim skupinama. No moguće je i da su se na ovo istraživanje odazvali roditelji koji se bolje nose s djetetovim stanjem i koji su se lakše nosili s izazovima s kojima su bili suočeni tijekom pandemije bolesti COVID-19, a za vrijeme koje je istraživanje provedeno. Zbog ove moguće samoselekcije sudionika ograničena je mogućnost generalizacije rezultata na ciljnu populaciju. Također, uključivanje sudionika u istraživanje zasnivalo se isključivo na dijagnostičkim podacima koji su u tom trenutku bili dostupni logopedima te, djelomično, na iskrenosti roditelja prilikom odgovaranja na pitanja o djetetovoj dijagnozi i drugim eventualnim oštećenjima i poremećajima prisutnima kod djeteta. Nije bilo moguće dodatno provjeriti djetetovu dijagnozu ni identitet sudionika.

U ovom su istraživanju većinom sudjelovale majke (udio očeva iznosi oko 6 %) i to one koje su u partnerskom odnosu. Ovako velika nejednakoost prema spolu sudionika mogla bi biti posljedica toga što su žene obično u većoj mjeri uključene u brigu o djeci pa stoga vjerojatno i češće žele sudjelovati u istraživanjima koja su tematski vezana za roditeljstvo. Iako neka istraživanja ukazuju da majke doživljavaju više depresivnosti i roditeljskog stresa (npr. Beckman, 1991; Olsson i Hwang, 2001), udio očeva u ovom uzorku je premali za donošenje zaključaka o eventualnim rodnim razlikama u atribucijama uzroka ili

It should be noted that participants scored low on average on the DASS-21, which measured parents' negative emotional states ( $M = 0.42$ ,  $SD = 0.42$ , range 0 to 2.14). This lower variability in responses may have led to underestimated correlations. Since the participants were parents of children with developmental disorder, who have been shown to experience more stress and negative emotions than parents of children with normal development (see e.g., Hastings, 2002; Hsiao, 2018; Lee, 2013), this result was not expected. The level of parental stress can vary depending on the type and severity of the diagnosis (see e.g., Hayes & Watson, 2013). For example, Šaško (2021) found that parents of children with speech, language, and voice disorders had the lowest levels of parental stress compared to the other groups studied. However, it is also possible that the present study included parents who were better able to cope with their child's condition and overcome the challenges they faced during the COVID-19 pandemic, during which the survey was conducted. Due to this possible self-selection of participants, the ability to generalise the results to the target population is limited. Furthermore, the inclusion of participants in the study was based solely on the diagnostic data available to the SLPs at the time of the study and, in part, on the honesty of the parents in answering questions about the child's diagnosis and other impairments and disorders that may be present. It was not possible to verify further details regarding the child's diagnosis or the identity of the participants.

Most of the participants in the present study were mothers (the proportion of fathers was about 6%), or more precisely, mothers in a relationship. Such a large discrepancy between male and female participants is probably due to the fact that women tend to be more involved in childcare and are therefore more willing to participate in studies thematically related to parenthood. Although some studies suggest that mothers experience more depression and parenting stress (e.g., Beckman, 1991; Olsson & Hwang, 2001), the proportion of fathers in this sample is too small to draw conclusions about possible gender differences in causal attributions or negative emotional states.

razini negativnih emocionalnih stanja. Dobivene rezultate svakako bi trebalo provjeriti na većem i reprezentativnijem uzorku koji bi uključivao i očeve, što bi omogućilo i provjeru eventualnih rodni razlika u visini povezanosti između atribucija uzroka djetetova poremećaja i prilagodbe roditelja na djetetovu dijagnozu. Također, budući da bi različite atribucije uzroka mogle biti adaptivne za prilagodbu na različite ishode, potrebna su daljnja istraživanja na različitim populacijama kako bi se provjerilo razlikuju li se odnosi između roditeljskih atribucija uzroka djetetove bolesti ili razvojnog poremećaja i prilagodbe roditelja ovisno o prirodi i težini djetetovog stanja.

## ZAKLJUČAK

Odnos atribucija uzroka dječjih razvojnih poremećaja i prilagodbe roditelja nije istraživao u populaciji roditelja djece s dijagnozom RJP-a te je ovo istraživanje pokušalo doprinijeti spoznajama u ovom području. Rezultati ukazuju na to da percepcija stabilnosti uzroka djetetovog RJP-a ima najsnažniji učinak na negativna emocionalna stanja roditelja. Ovo ukazuje na različit značaj pojedinih dimenzija uzročnih atribucija za predviđanje prilagodbe na različite nepoželjne životne događaje. Iako rezultati ovog istraživanja ukazuju na to da je učinak percipirane stabilnosti uzroka nešto slabiji kod roditelja kod kojih je prošlo više vremena od djetetove dijagnoze, učinak je bio značajan na skoro svim promatranim vrijednostima vremena proteklog od djetetove dijagnoze. S druge strane, za mjesto uzročnosti i podložnost uzroka osobnoj kontroli dobiveni su značajni učinci samo kod roditelja kod kojih je prošlo manje vremena od djetetove dijagnoze, što potvrđuje pretpostavku da bi odnosi uzročnih atribucija i prilagodbe mogli slabjeti tijekom vremena.

Dobiveni rezultati imaju i praktične implikacije. Što se tiče dimenzije stabilnosti, ne radi se o pogrešnim atribucijama. Poremećaj je trajan, dakle vjerojatno je da je njegov uzrok stabilan i nepromjenjiv. Stoga je pitanje kako ublažiti ovaj negativan učinak percipirane stabilnosti na prilagodbu roditelja, možda stavljanjem fokusa na djetetove jake strane i napredak koji postiže kroz logopedsku terapiju. Rezultati su također pokazali

The results obtained should be tested on a larger, more representative sample that also includes fathers. This would also make it possible to analyse possible gender differences in the strength of the relationships between the causal attributions for the child's diagnosis and parental adjustment. Since different causal attributions may be adaptive for adjustment to different outcomes, further research in different populations is needed to investigate whether the relationships between parents' causal attributions for the child's illness or developmental disorder and their adjustment differ depending on the type and severity of the child's condition.

## CONCLUSION

The relationship between causal attributions for childhood developmental disorders and parental adjustment has not yet been investigated in the population of parents of children with DLD. Therefore, the present study aimed to contribute further knowledge to this area of research. The results suggest that the perception of stability of the cause of the child's DLD has the strongest effect on parents' negative emotional states. This suggests the differential importance of certain dimensions of causal attributions in predicting adjustment to different negative life outcomes. Although results of the present study showed a slightly weaker effect of perceived stability of the cause for parents whose child was diagnosed a long time ago, the effect was significant for almost all observed values of time since the child's diagnosis. In contrast, significant effects for the locus and personal controllability of the cause were only found for parents whose child was diagnosed more recently, confirming the assumption that the relationships between causal attributions and adjustment may weaken over time.

The results obtained also have practical implications. As far as the dimension of stability is concerned, the attributions are not false. The disorder is permanent, so it is likely that the cause of the disorder is stable and unchanging. The question arises as to how this negative effect of perceived stability on parental adjustment can be mitigated, perhaps by shifting the parent's focus to the



slabiju prilagodbu kod roditelja koji RJP pripisuju uzrocima koje smatraju podložnima osobnoj kontroli. Ovo je vjerojatno povezano sa samookrivljanjem za djetetov jezični poremećaj. Bolje informiranje roditelja o prirodi poremećaja te mijenjanje njihovih pogrešnih atribucija uzroka posljedično bi trebalo dovesti i do bolje prilagodbe roditelja. S obzirom na to da narušeno mentalno zdravlje roditelja može negativno djelovati na roditeljsko ponašanje te odnos s djetetom, a to posljedično može imati negativne posljedice na djetetov razvoj, važno je u kliničkom radu osigurati profesionalnu podršku i roditeljima te im pomoći u razvoju strategija za učinkovitije suočavanje s djetetovom dijagnozom.

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child's strengths and the progress they are making through speech therapy. The results also showed poorer adjustment in parents who attributed DLD to causes they considered personally controllable. This is likely to be related to self-blame for the child's language disorder. Providing sufficient information to the parents about the nature of the disorder and changing their false causal attributions should therefore lead to better parental adjustment. Considering that impaired parental mental health can have a negative impact on parental behaviour and the relationship with the child, which in turn can have a negative impact on the child's development, it is important, in clinical work, to offer professional support to parents and help them develop strategies to better cope with the child's diagnosis.

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