A COMPARISON OF INDIVIDUAL QUALITIES OF RESILIENCY IN ADOLESCENTS WITH MILD INTELLECTUAL DISABILITY AND TYPICALLY DEVELOPING ADOLESCENTS

Abstract

Intellectual disability (ID) is a chronic adversity that increases the likelihood of negative developmental outcomes. The aim of this research is to examine differences between adolescents with mild ID and typically developing (TD) adolescents in personal qualities which contribute to successful adaptation. The sample consisted of 92 adolescents with mild ID and 772 TD adolescents, 13–19 years of age, of both sexes. Resiliency was assessed using the Resiliency Scales for Children and Adolescents. In comparison to TD adolescents, adolescents with mild ID have significantly lower levels of sense of mastery and sense of relatedness and a higher level of emotional reactivity. In the subsample of adolescents with mild ID there were no age or sex differences for resiliency. Adolescents with mild ID have a lower level of resiliency than TD adolescents, which highlights the need to develop programs focused on personal qualities associated with positive developmental outcomes.

Keywords: adolescent, intellectual disability, resiliency

Introduction

Various definitions of resilience can be found in the literature. However, most contemporary authors describe resilience as positive adaptation despite significant adversity (Luthar et al., 2015; Sameroff & Rosenblum, 2006). In the context of thus defined resilience, intellectual disability (ID) can be observed as chronic adversity that impedes psychosocial functioning or a high-risk condition that increases the likelihood of negative development.
outcomes. Resilient outcomes are related to numerous factors which can be classified into three domains: individual characteristics, family environment, and a wider social environment (Bonanno et al., 2015; Werner, 1990). This paper focused on the differences between adolescents with mild ID and typically developing (TD) adolescents with regard to resiliency, i.e. individual qualities which contribute to positive development outcomes.

**Developmental outcomes in individuals with intellectual difficulties**

The results of longitudinal studies on the differences in the psychosocial functioning of persons with borderline intelligence and mild ID compared to the normative population, indicate a relation between lower intellectual abilities and negative development outcomes. Maughan and colleagues (1999) reported that at the age of 33 persons with ID had poorer living and material circumstances, more frequent difficulties in family and marital relationships, and a higher level of affective symptomatology compared to persons without ID. Vaillant and Davis (2000) found that in adulthood men with IQs of 87 or below were more likely to complete fewer years of education, to be unskilled laborers and to have lower earnings than persons with a higher IQ. In the study on development outcomes in persons with IQs of 85 or below and their typically developing siblings, Seltzer and colleagues (2007) determined that persons with a lower IQ had limited educational, occupational and financial attainment, that they got married at an older age, that they participated less in formal organizations, and that they had higher levels of depressive symptoms and neuroticism and lower levels of sense of personal growth and life purpose.

**Intellectual Abilities and Resiliency**

In papers on resilience, intellectual abilities are often related to the quality of psychosocial functioning. A higher IQ and more developed cognitive skills (e.g. problem solving skills, executive functioning skills) are considered a protective factor which contributes to positive development of children exposed to unfavorable living circumstances. This thesis was confirmed by the results of studies on diverse at-risk groups, such as: children of people diagnosed as mentally ill (Rutter, 1985), maltreated children (Kaufman & Zigler, 1989), children reared in poverty (Garmezy, 1993), and children with perinatal complications and adverse rearing conditions (Werner, 1993). It is believed that children with better intellectual and cognitive abilities can assess a stressful situation more accurately, develop coping strategies, and obtain necessary help from others (Werner, 1990). Similarly, a higher IQ can have a protective function due to its relation to better academic achievement (Masten et al., 1990).

However, intellectual abilities do not predict positive adaptation consistently. Some authors found that better intellectual abilities contributed to resilient outcomes when stress was low, but at high stress levels, more intelligent children functioned similarly to their peers with lower intellectual abilities (Luthar, 1991; Sameroff & Rosenblum, 2006). It is hypothesized that high IQ children are more sensitive to their environments and therefore more susceptible to negative influences (Luthar, 1991).
The results of some studies indicated that the relation between intellectual abilities and individual qualities which contributed to resilient outcomes was negative or insignificant (Avci et al., 2013; Friborg et al., 2005). Furthermore, the findings of the above-mentioned longitudinal studies on psychosocial development of persons with ID pointed to significant differences among them with regard to development outcomes. Individual factors associated with more successful psychosocial functioning of persons with ID were better social and emotional competence in terms of generativity, use of adaptive defenses and capacity for warm object relations (Vaillant & Davis, 2000). Studies conducted on samples of adolescents with ID revealed that positive individual characteristics (e.g. optimism, self-efficacy) were a good predictor of higher quality of life (Biggs & Carter, 2016) and life satisfaction (Shogren et al., 2006).

The aim of this research was to determine the differences between adolescents with mild ID and their TD peers in resiliency domains singled out and described by Prince Embury (2007): sense of mastery, sense of relatedness, and emotional reactivity. Sense of mastery includes three individual qualities: optimism, self-efficacy and adaptability. Individual qualities included in the sense of relatedness are: sense of trust, perceived access to support, comfort with others, and tolerance of differences. Emotional reactivity includes sensitivity and recovery and impairment after emotional excitement.

The results of research by Gilmore and colleagues (2013) confirmed the presence of differences between children with ID and their typically developing peers in the above-mentioned resiliency domains, in terms of lower tolerance and higher sensitivity in children with ID. This research examined the differences in resiliency between adolescents with and without ID, as well as the relation of the described individual qualities to gender and age.

**Research Methodology**

**Participants**

The sample included 864 participants of both genders, 13–19 years of age. The total sample was divided into a subsample of adolescents with mild ID (55 boys and 37 girls) and a subsample of TD adolescents (419 boys and 353 girls). Adolescents with mild ID were recruited from four schools for students with disabilities. The research included adolescents with intellectual functioning at the level of mild ID (IQ = 50–69), with adequate verbal skills, who were assessed as capable of giving responses on a Likert-type scale. Adolescents with dual diagnoses and multiple disabilities were not included. The subsample of TD adolescents included students of eight regular elementary and secondary schools. Every school participated with four randomly selected complete classes, ranging from seventh to twelfth grades.

There was no statistically significant difference determined between participants with mild ID and TD participants with regard to gender (Chi square = 1,007; df = 1; p = 0.316) and age (M = 15.86; SD = 1.843 against M = 16.07; SD = 1.464; t = 1.067; df = 105,132; p = 0.289).
Data collection

Data on participants’ age, gender, intellectual functioning, and health were taken from school records.

The *Peabody Picture Vocabulary Scale* – PPVT-IV (Dunn & Dunn, 2007) was used for the assessment of verbal abilities of adolescents with mild ID. Form A was applied in this research, with 114 items divided into 16 sets which test the knowledge of nouns, verbs, and adjectives from 20 different areas (e.g. plants, professions). Class teachers selected students with adequate verbal abilities who were able to participate in the research. Also, before giving out the questionnaires, assessment of receptive speech was conducted by means of PPVT-IV. The participants with mild ID achieved standard scores in the range 94–185 (M = 137,35; SD = 22,794).

The *Resiliency Scales for Children and Adolescents* – RSCA (Prince Embury, 2007) consisted of 64 questions distributed across the following three scales: the Sense of Mastery Scale (MAS) consisting of Optimism, Self-Efficacy and Adaptability subscales; the Sense of Relatedness Scale (REL) consisting of Sense of Trust, Perceived Access to Support, Comfort with Others and Tolerance of Differences subscales; and the Emotional Reactivity Scale (REA) consisting of Sensitivity, Recovery and Impairment subscales. Higher scores on the MAS and REL scales, and lower scores on the REA scale point to greater resiliency. The coefficient alpha values for the scales and subscales were as follows: MAS 0,832; Optimism 0,814; Self-Efficacy 0,885; Adaptability 0,662; REL 0,909; Trust 0,788; Support 0,793; Comfort 0,763; Tolerance 0,741; REA 0,901; Sensitivity 0,770; Recovery 0,706; Impairment 0,881.

Procedure

Informed consent was obtained from the school, parents, and participants for the purpose of this research. Research aims were explained and instructions on the data collecting procedure were given to each participant. The participants were informed that participation in the research was voluntary and that their responses were confidential. The questionnaire was given to TD adolescents in groups and they completed it during school classes. The testing of adolescents with ID was conducted in a separate room in the school. The questions were read as they were given in questionnaires, with additional explanations where necessary. The participants were required to choose one of the given answers. Cards with provided answers were made in order to make it easier for the participants to answer the questions.

Research Results

The means and standard deviations for the RSCA are presented in Table 1. A high, statistically significant difference between participants with mild ID and TD participants was found on the MAS scale in total and its subscales. TD participants achieved significantly higher scores on the MAS scale in total, as well as on the Optimism and Self-efficacy subscales. Eta squared values indicate that the effect size was very high. On the other hand, participants with mild ID achieved significantly higher scores on the Adaptability
subscale, though with rather small effect size. There was no statistically significant difference determined between participants with mild ID and TD participants on the Trust subscale. On all other subscales of the REL scale, including the scale in total, TD participants achieved significantly higher scores. However, the effect size was small. No statistically significant difference was found in mean values of the scores on the REA scale and its subscales with regard to the level of intellectual functioning. The only exception was the Recovery subscale, on which persons with mild ID achieved significantly higher scores. However, the effect size was very small.

Table 1. Results of the participants on RSCA with regard to the level of intellectual functioning

<table>
<thead>
<tr>
<th>Scales and Subscales</th>
<th>TD Adolescents</th>
<th>Adolescents with ID</th>
<th>t</th>
<th>df</th>
<th>Eta²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>MAS</td>
<td>57,96</td>
<td>11,997</td>
<td>50,65</td>
<td>8,249</td>
<td>7,597***</td>
</tr>
<tr>
<td>Optimism</td>
<td>18,99</td>
<td>5,315</td>
<td>17,51</td>
<td>3,627</td>
<td>3,499***</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>30,19</td>
<td>6,101</td>
<td>23,75</td>
<td>5,139</td>
<td>9,725***</td>
</tr>
<tr>
<td>Adaptability</td>
<td>8,78</td>
<td>2,859</td>
<td>9,39</td>
<td>1,833</td>
<td>-2,829**</td>
</tr>
<tr>
<td>REL</td>
<td>76,33</td>
<td>14,164</td>
<td>71,50</td>
<td>10,242</td>
<td>4,082***</td>
</tr>
<tr>
<td>Trust</td>
<td>21,37</td>
<td>4,821</td>
<td>20,72</td>
<td>3,299</td>
<td>1,670</td>
</tr>
<tr>
<td>Support</td>
<td>20,98</td>
<td>4,051</td>
<td>19,67</td>
<td>2,867</td>
<td>3,913***</td>
</tr>
<tr>
<td>Comfort</td>
<td>12,61</td>
<td>3,080</td>
<td>11,47</td>
<td>2,351</td>
<td>4,243***</td>
</tr>
<tr>
<td>Tolerance</td>
<td>21,38</td>
<td>4,877</td>
<td>19,64</td>
<td>3,859</td>
<td>3,963***</td>
</tr>
<tr>
<td>REA</td>
<td>31,79</td>
<td>14,723</td>
<td>33,11</td>
<td>14,118</td>
<td>-0,814</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>12,31</td>
<td>5,268</td>
<td>11,89</td>
<td>4,451</td>
<td>0,845</td>
</tr>
<tr>
<td>Recovery</td>
<td>4,57</td>
<td>3,563</td>
<td>5,50</td>
<td>3,080</td>
<td>-2,392*</td>
</tr>
<tr>
<td>Impairment</td>
<td>14,91</td>
<td>8,635</td>
<td>15,72</td>
<td>8,582</td>
<td>-0,853</td>
</tr>
</tbody>
</table>

*p ≤ 0,05; ** p ≤ 0,01; *** p ≤ 0,001

Table 2 presents gender differences in the RSCA scores for both subsamples. On the MAS scale in total, as well as on all subscales, TD girls achieved statistically significantly higher scores than boys. Except on the Optimism subscale, where the effect size was moderate to high (Eta squared = 0,06), the difference between the mean values of scores on Self-efficacy (Eta squared = 0,018) and Adaptability (Eta squared = 0,032) subscales, and the MAS scale in total (Eta squared = 0,022) was small. TD girls achieved significantly higher scores on the REL scale and Trust, Support, and Tolerance subscales. The difference between the mean values of the compared groups was moderate on the Support subscale (Eta squared = 0,06), and low on the Trust (Eta squared = 0,01) and Tolerance (Eta squared = 0,03) subscales, as well as on the REL scale in total (Eta squared = 0,01). TD girls achieved statistically significantly higher scores than boys only on the Sensitivity subscale of the REA scale. The difference between the mean values of scores was small (Eta squared = 0,01).
In the subsample of adolescents with mild ID, no statistically significant gender differences were found in the mean values of scores on the RSCA scales and subscales.

Table 2. Results of the participants on RSCA with regard to gender

<table>
<thead>
<tr>
<th>Scales and Subscales</th>
<th>TD Adolescents</th>
<th>Adolescents with ID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>MAS</td>
<td>56.36</td>
<td>59.87</td>
</tr>
<tr>
<td>Optimism</td>
<td>18.60</td>
<td>19.46</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>29.44</td>
<td>31.09</td>
</tr>
<tr>
<td>Adaptability</td>
<td>8.32</td>
<td>9.32</td>
</tr>
<tr>
<td>REL</td>
<td>74.10</td>
<td>78.97</td>
</tr>
<tr>
<td>Trust</td>
<td>20.93</td>
<td>21.89</td>
</tr>
<tr>
<td>Support</td>
<td>20.07</td>
<td>22.05</td>
</tr>
<tr>
<td>Comfort</td>
<td>12.45</td>
<td>12.79</td>
</tr>
<tr>
<td>Tolerance</td>
<td>20.65</td>
<td>22.24</td>
</tr>
<tr>
<td>REA</td>
<td>31.26</td>
<td>32.43</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>11.84</td>
<td>12.88</td>
</tr>
<tr>
<td>Recovery</td>
<td>4.48</td>
<td>4.68</td>
</tr>
<tr>
<td>Impairment</td>
<td>14.94</td>
<td>14.87</td>
</tr>
</tbody>
</table>

*p ≤ 0.05; ** p ≤ 0.01; *** p ≤ 0.001

According to the results presented in Table 3, a statistically significant difference was found in the mean values of scores on all RSCA scales and subscales among TD participants of different ages. The results of the Tukey post hoc test indicate that on the MAS and REL scales and their subscales, 13-year-old participants had higher scores than all groups of participants aged between 15 and 18, and that 14-year-old participants had higher scores than all older participants. The effect size was moderate to high. A difference between younger and older participants was also determined on the REA scale, though with rather small effect size. On the Sensitivity and Impairment subscales, 13 and 14-year-old participants had higher scores than the oldest group of participants in the sample. On the Recovery subscale, 13-year-old participants had higher scores than all older participants; 14-year-old participants had, on average, significantly higher scores than participants who were 15, 16, and 18 years old.

On the other hand, in participants with mild ID, a statistically significant difference in the mean values of scores among participants of different ages was found only on the Optimism subscale of the MAS scale. The effect size was moderate to high. The post hoc Tukey test determined that the youngest participants had lower scores than the oldest participants.
Table 3. Results of the participants on RSCA with regard to age

<table>
<thead>
<tr>
<th>Scales and Subscales</th>
<th>TD Adolescents</th>
<th>Adolescents with ID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df = 5,766</td>
<td>df = 4,87</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>Eta&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>MAS</td>
<td>32,273***</td>
<td>0,21</td>
</tr>
<tr>
<td>Optimism</td>
<td>25,919***</td>
<td>0,17</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>25,528***</td>
<td>0,17</td>
</tr>
<tr>
<td>Adaptability</td>
<td>9,782***</td>
<td>0,06</td>
</tr>
<tr>
<td>REL</td>
<td>24,770***</td>
<td>0,16</td>
</tr>
<tr>
<td>Trust</td>
<td>17,697***</td>
<td>0,12</td>
</tr>
<tr>
<td>Support</td>
<td>13,284***</td>
<td>0,09</td>
</tr>
<tr>
<td>Comfort</td>
<td>12,307***</td>
<td>0,08</td>
</tr>
<tr>
<td>Tolerance</td>
<td>23,115***</td>
<td>0,15</td>
</tr>
<tr>
<td>REA</td>
<td>6,867***</td>
<td>0,04</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>2,850*</td>
<td>0,02</td>
</tr>
<tr>
<td>Recovery</td>
<td>7,512***</td>
<td>0,05</td>
</tr>
<tr>
<td>Impairment</td>
<td>5,393***</td>
<td>0,03</td>
</tr>
</tbody>
</table>

*p ≤ 0,05; *** p ≤ 0,001

**Discussion**

The results of this research indicate that adolescents with mild ID differ from TD adolescents with regard to individual characteristics which contribute to resilient outcomes. In general, adolescents with mild ID reported a lower sense of mastery and sense of relatedness and elevated emotional reactivity compared to their TD peers.

With regard to sense of mastery, a significantly lower level of optimism and self-efficacy, and a significantly higher level of adaptability, were observed in adolescents with mild ID compared to TD adolescents. The results of previous studies indicated that there was a positive correlation of intellectual and cognitive abilities with optimism (Klaczynski & Fauth, 1996; Nonis & Wright, 2003) and self-efficacy (Chamorro Premuzic et al., 2010; Paunonen & Hong, 2010) in TD adolescents. The obtained findings are in accordance with the results of other comparative studies which confirmed that persons with ID were less optimistic (Biggs & Carter, 2016) and felt significantly less self-efficacious than their non-disabled peers (Forte et al., 2011). Zigler and associates (1999) reported that persons with ID were more dependent on adults, that their expectations of success in solving tasks were low, and that they were less interested in new situations. The lower level of sense of mastery in persons with ID is usually related to a past history of failure experiences (Gresham et al., 1988; Zigler et al., 1999). Bearing in mind that Gilmore and colleagues (2013) did not find significant differences in the sense of mastery level between children...
with and without ID, it can be assumed that these differences become conspicuous at an older age and that they are related to accumulated failure experiences, limited possibilities for acquiring new experiences, and more objective self-assessment. The results which refer to differences in adaptability deviate from the general pattern of a lower sense of mastery in adolescents with mild ID, although a very small effect size was determined.

Adolescents with mild ID also significantly differ from their TD peers with regard to individual qualities in the sense of relatedness domain. The results which indicate a lower level of perceived access to support in adolescents with mild ID can be compared to the findings of comparative studies on significantly lower levels of perceived access to social support in persons with ID compared to persons without ID (Victorian Population Health Survey of People with an Intellectual Disability 2013, 2015; Mithen et al., 2015). Results of studies on samples of TD adolescents which show a positive correlation between intellectual abilities and perceived access to social support (Hogan et al., 2010; Sameroff et al., 1993) should also be mentioned. The findings which refer to a lower level of comfort with others in adolescents with mild ID are in accordance with the observations of other authors on the difficulties which persons with ID have in social relations. On the basis of a systematic review of literature in this area, Verdonschot and colleagues (2009) concluded that persons with ID had less contact with family and friends, and that their social networks were relatively small, mainly consisting of persons with ID. Furthermore, research on peer interactions of students with ID in regular schools indicated that they socialized with peers with ID more than with TD peers (Cutts & Sigafoos, 2001), that they were poorly accepted by their peers (Smoot, 2004), that they were less popular, had fewer friends, and were rarely included in friend groups (Koster et al., 2010). A lower level of tolerance of differences was determined in adolescents with mild ID, i.e. a belief that they can safely express differences in relationships. Gilmore and colleagues (2013) also reported on the lower level of tolerance in participants with ID, and explained that it was as a complex skill which required a high level of social competence. In support of this explanation, we can cite the results of studies on the lower social competence of children and adolescents with ID compared to their TD peers (Bramlett et al., 1994; Kucuker & Cifci Tekinarslan, 2015).

In the emotional reactivity domain, the difference between adolescents with mild ID and TD adolescents was determined only with regard to recovery skills. Adolescents with mild ID had a lower capacity to return to normal functioning after a strong emotional reaction. The obtained results differ from the results of Gilmore and colleagues (2013), which indicated that participants with ID had a higher level of emotional sensitivity, but did not differ with regard to recovery skills. However, Gilmore and colleagues (2013) pointed out that their findings were unexpected, bearing in mind that emotional problems were more frequent in persons with ID. The results obtained in this research are in accordance with the findings of comparative studies on poorer self-regulation skills (Eisenhower et al., 2007; Willson, 1999) and a generally higher incidence of emotional problems (Dekker et al., 2002; Emerson, 2003) in adolescents with ID compared to their TD peers.

The results of this research indicated that gender differences in the examined individual qualities were less pronounced in adolescents with mild ID than their TD peers. In the subsample of TD adolescents, girls had a significantly higher level of sense of mastery in general, as well as a significantly higher level of all individual qualities in this domain,
than boys. Furthermore, TD girls had a significantly higher level of sense of relatedness and a higher level of three out of four examined individual qualities in this domain—sense of trust, perceived access to support and tolerance of differences, compared to TD boys. With regard to emotional reactivity, TD boys and girls differed only in sensitivity which was significantly higher in girls. Prince Embury (2007) found the same general direction of gender differences in the standardization sample, manifested as higher scores on all scales (MAS, REL, and REA) in girls, with significant differences only in adaptability and perceived support at the ages 12–14. The findings which refer to gender differences in sense of mastery in TD adolescents are consistent with the results of other studies on samples of TD adolescents which indicated that girls had a higher level of self-efficacy (Bandura et al., 2003; Britner & Pajares, 2001) and optimism (Wray et al., 2013; Yates, 2002). Bearing in mind that the questions in the Adaptability subscale mainly referred to seeking help when needed, the obtained results can be compared to the findings of research on coping strategies in adolescence, which indicated that girls used this strategy more frequently (Eschenbeck et al., 2007; Hampel & Petermann, 2005). The results regarding gender differences in sense of relatedness in TD adolescents were confirmed by empirical data on the higher level of attachment (Laible et al., 2000; Muris et al., 2003) and perceived social support (Hogan et al., 2010; Malecki & Demaray, 2002), as well as the lower level of loneliness (Cheng & Furnham, 2002; Chipuer & Pretty, 2007) in girls compared to boys from the typical population. Also, the results which refer to a higher level of emotional reactivity, i.e. sensitivity, in TD girls are in accordance with findings of other authors regarding higher intensity and negativity of emotional reactions to stressful events in girls (Charbonneau et al., 2009; Laible et al., 2010).

In adolescents with mild ID, no significant gender differences were determined in sense of mastery, sense of relatedness, and emotional reactivity. Gilmore and colleagues (2013) also examined the influence of gender on the RSCA scores and found no significant differences except that girls reported higher sensitivity than boys. With regard to individual qualities in the sense of mastery domain, the obtained results are in accordance with the findings of other authors indicating that there were no significant gender differences in self-efficacy in persons with ID (Gresham et al., 1988; Payne & Jahoda, 2004). Nota and associates (2010) explained the lack of differences in self-efficacy beliefs in male and female persons with ID by the fact that school and extra scholastic activities for individuals with ID were rarely differentiated by gender, and thus girls and boys with ID mainly had similar experiences. The results of this research which refer to individual qualities in the sense of relatedness domain, are consistent with the findings of other authors indicating that in children and adolescents with ID gender was not significantly related to peer acceptance and relations (Smoot, 2004; Wendelborg & Kvello, 2010) or social skills (Adeniyi & Omigbodun, 2016; Heiman & Margalit, 1998). This is further supported by empirical findings that academic competence, physical appearance and behavior problems had more influence on the status of persons with ID in their peer group than gender (Baydik & Bakkaloğlu, 2009). In this research, there were no gender differences in emotional reactivity in adolescents with ID, which corresponds to the findings of other studies indicating that boys and girls with ID did not differ with regard to the incidence of emotional problems (Dekker & Koot, 2003; Einfeld & Tonge, 1996). This is in accordance with observations of
some authors that neurological impairments and deficits in basic skills had a more significant role than gender in the etiology of emotional problems in children and adolescents with ID (Chadwick et al., 2000; Einfeld & Tonge, 1996).

Significant age differences were determined in the subsample of TD adolescents. Younger TD adolescents reported more sense of mastery, sense of relatedness, and emotional reactivity than older TD adolescents. The general direction of the determined age differences is in accordance with the findings of Prince Embury (2007) for the standardization sample. However, she reported on significant differences only with regard to the Impairment score which is higher at a younger than at an older age. Results of other studies conducted on samples of TD adolescents indicated that self-efficacy (Jacobs et al., 2002; Pajares & Valiante, 1999) and optimism (Carvajal et al., 2002, Patton et al., 2011) decreased with age, and that seeking help as a coping strategy occurred earlier than more complex strategies requiring more developed cognitive abilities (Compas et al., 2001; Hampel & Petermann, 2005). With regard to sense of relatedness in TD adolescents, previous studies also indicated that younger adolescents had a higher level of attachment (Laible et al., 2000; Muris et al., 2003) and perceived social support (Malecki & Demaray, 2002; Scholte et al., 2001), as well as a lower level of loneliness (Brage et al., 1993; Chipuer & Pretty, 2007) compared to older adolescents. The obtained results which point to age differences in emotional reactivity in TD adolescents are consistent with findings of other authors according to which emotional reactivity decreased (Silke et al., 2003), and emotion regulation increased (Silvers et al., 2012) with age.

On the other hand, in the subsample of adolescents with mild ID, significant age differences were determined only in the level of optimism. However, the direction of these differences was opposite to the one in TD adolescents, since younger adolescents with mild ID had a lower level of optimism than older ones. In a meta-analytic review of studies on self-serving attributional bias, Mezulis and colleagues (2004) concluded that, in the general population, the level of positivity bias in attributions was the lowest in early adolescence (12-14 years of age) when a person starts realizing that frequent failures can be the result of lower abilities. The obtained findings indicating the absence of significant age differences in self-efficacy are supported by the results of previous studies (Gresham et al., 1988; Payne & Jahoda, 2004). Similarly, the results which refer to sense of relatedness are consistent with the findings of other authors according to which, in persons with ID, there were no significant age differences in social skills (Adeniyi & Omigbodun, 2016; Heiman & Margalit, 1998), peer acceptance and relations (Heiman & Margalit, 1998; Wendelborg & Kvello, 2010), and perceived social support (Lunsky & Benson, 2001). In interpreting these findings, Nota and colleagues (2007) made a significant observation that the limited experiences and opportunities that hinder individual qualities of people with ID override any age-related effects. The findings which refer to emotional reactivity are confirmed by the results of other studies which indicated that there were no age differences with regard to emotional problems in children and adolescents with ID (Einfeld & Tonge, 1996). The absence of age differences in the prevalence of emotional problems in this population is associated with a slower development of behavioral regulation, as well as with the influence of neurological and genetic factors (Dekker & Koot, 2003).
Limitations of the study

The current study has several limitations that should be taken into account. The ID subsample size was relatively small and composed of 'special' school students with mild ID, so replication with a larger number of adolescents with different degrees of ID is desirable. Data obtained from adolescents with ID were used in this research. Even though special attention was given to assessing the verbal abilities of adolescents with ID and adapting the assessment procedure accordingly, it is possible they were not able to, or did not want to give correct answers to some questions. In the future, it would be important to replicate the present findings using multiple informants. This study included the questions covered by the Resiliency Scales for Children and Adolescents, so we have no data on other individual characteristics related to resilient outcomes. Apart from that, the obtained results refer to individual characteristics which represent only one aspect of the complex resilience construct. Thus, future studies should be directed at environmental influences and the interaction of individual and environmental factors.

Conclusion

A general conclusion of this research is that adolescents with mild ID have a lower level of resiliency than TD adolescents. It was found that adolescents with mild ID have significantly lower levels of sense of mastery and sense of relatedness and a higher level of emotional reactivity. In light of these findings, it can be stated that implementing effective interventions to promote resiliency may contribute to the positive adaptation of adolescents with mild ID. The results of this research complement and extend earlier studies by highlighting domains of resiliency that are less developed in adolescents with mild ID and providing impetus for attention to interventions that may address these areas. In addition, our findings underscore the need for a more careful examination of the specific constellations of individual qualities and for the development of multifaceted programs that would provide interventions for different domains of resiliency, rather than focusing on one aspect at a time. This study also provides new information indicating that the relationship between age and gender on the one hand, and individual characteristics, on the other, happened to be different in the two subsets. The gender and age differences found in all domains of resiliency in TD adolescents were not confirmed in adolescents with mild ID. In this regard, our data provides a starting point for examining the existence of different developmental pathways of resiliency in these two groups.

References


КОМПАРАЦИЈА ИНДИВИДУАЛНИХ КВАЛИТЕТА РЕЗИЛИЈЕНТНОСТИ АДОЛЕСЦЕНАТА СА ИНТЕЛЕКТУАЛНОМ ОМЕТЕНОШЋУ И АДОЛЕСЦЕНАТА ТИПИЧНОГ РАЗВОЈА

Интелектуална ометеност (ИО) представља хронично неповољно стање које повећава вероватноћу негативних развојних исхода. Циљ овог исследовања је утврђивање разлика између адолесцената са лаком ИО и адолесцената типичног развоја (ТР) у индивидуалним квалитетима који доприносе успешној адаптацији. Узорак чини 92 адолесцената са лаком ИО и 772 адолесцената ТР, узраста 13–19 година, оба йола. За процену резилијентности коришћене су Скале резилијентности за децу и адолесценца. У поређењу са адолесценцама ТР, адолесценци са лаком ИО имају значајно нижи ниво осећања контроле над властитим животом и осећања повезаности, као и виши ниво емоционалне реактивности. У подузорку адолесцената са лаком ИО нису констатоване значајне узрасне и полне разлике у резилијентности. Адолесценци са лаком ИО имају нижи ниво резилијентности у односу на адолесценце ТР. Што указује на потребу за развоја програма усмерених на индивидуалне квалитети који су јошвиезани са позитивним развојним исходима.

СРАВНЕНИЕ ИНДИВИДУАЛЬНЫХ КАЧЕСТВ РЕЗИЛИЕНТНОСТИ У ПОДРОСТКОВ С ЗАДЕРЖКОЙ В ИНТЕЛЛЕКТУАЛЬНОМ РАЗВИТИИ И ПОДРОСТКОВ ТИПИЧНОГО РАЗВИТИЯ

Задержка в интеллектуальном развитии (ЗИР) представляет собой постоянное неблагоприятное условие, которое увеличивает вероятность отрицательных результатов в развитии. Целью данного исследования является определение различий между подростками с легкой ЗИР и подростками типичного развития (ТР) в индивидуальных качествах, которые способствуют успешной адаптации. Исследование проведено на примере 92 подростков с легкой ЗИР и 772 подростков ТР, в возрасте от 13 до 19 лет. Для оценки резилиентности была использована Шкала резилиентности для детей и подростков. По сравнению с подростками ТР, подростки с легкой ЗИР характеризуют более низкий уровень чувства контроля над собственной жизнью, чувства привязанности и более высокий уровень эмоциональной реактивности. В подгруппе подростков с легкой ЗИР значительных возрастных и полных различий в резилиентности не обнаружено. По сравнению с подростками ТР, у подростков с легкой ЗИР обнаружен более низкий уровень устойчивости, что указывает на необходимость разработки программ, ориентированных на индивидуальные качества, которые связаны с положительными результатами в развитии.

Ключевые слова: подростки, задержка в интеллектуальном развитии, резилиентность