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Externalizing Behaviors of Ukrainian Children: The Role of Parenting

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Abstract

The purpose of this study was to assess the association of positive and negative parenting with child externalizing problems. Quantitative data were collected during face-to-face interviews with 320 parents of children 9–16 years of age (50% males) in 11 communities in Eastern, Southern and Central Ukraine. The study estimated the relationship between parenting practices and child externalizing behaviors, such as aggression, delinquency and attention problems. Results revealed that positive parenting, child monitoring, and avoidance of corporal punishment were associated with fewer child externalizing symptoms. Results also indicated that child male gender and single parenting had significant and positive association with child externalizing behaviors. This study extends international psychosocial knowledge on children and families. These findings can be used to design programs and foster dialogues about the role of family and social environments in the development of externalizing disorder among researchers, representatives of governmental and non-governmental organizations and mass media that work with child abuse prevention in Ukraine.

Ukraine is the largest country in Europe that, in recent history, has experienced a number of political and military crises involving violence and aggression. Yet, the peer-reviewed literature on psychosocial aspects of violence and aggression in Ukraine is remarkably limited. Since very little information is available on developmental aspects of externalizing behavior as well as factors that increase the risk of these behaviors in Ukrainian sociocultural context, this study seeks to fill this gap in the literature by exploring the relationship between child externalizing problems and parenting in Ukraine.

In Western samples, approximately five percent of youth were found to engage in severe externalizing behaviors, including violence, life-course-persistent offending, conduct disorder, property damage, and disproportionate substance abuse (Vaughn, Salas-Wright, DeLisi, & Maynard, 2014). Although the rate of severe externalizing behaviors appears to be nugatory, these behaviors result in disproportionately large societal costs (Craig, Schumann,

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Petrunka, Khan, & Peters, 2011). However, the percentage of children with severe externalizing problems remains unknown in Ukraine.

Research on child externalizing problems in Ukraine

Up to date, only one cross-sectional study estimated risk factors for conduct problems in a sample of 10- to 12-year-old Ukrainian children with depressive symptoms (Drabick, Beauchaine, Gadow, Carlson, & Bromet, 2006). The data for that study was collected in 1997 and included mother reports for Child Behavior Checklist Aggressive Behavior Scale (Achenbach, 1991) for 544 schoolchildren from one Ukrainian city, Kyiv. One half of the sample were mothers of children evacuated from Chornobyl zone, affected by radiation in 1986, and the other half were mothers of sex-matched classmates of these children. Drabick and colleagues reported that boys had more aggression than girls. The risk of aggression was higher for children with higher emotional liability and attention problems whose mothers reported lower scores on understanding child's problems and worries, comforting and talking with and showing affection for the child. Also, for girls only, higher maternal depression and lower marital satisfaction were related to elevated conduct problems. One of the strengths of this study was that it uncovered the importance of maternal communication for the development of child aggression and depression. However, the study focused on a limited age range of children and only included participants from one region of Ukraine. These limitations call for additional investigation of behavior problems among children who live in other regions of Ukraine, particularly in the Southern and Eastern oblasts that traditionally have a higher percentage of Russian speaking people than children in Kyiv and, thus, may be different with respect to sociodemographic characteristics. Furthermore, additional research is needed to understand a broader spectrum of externalizing problems that includes both aggressive and delinquent behaviors.

Theories linking parenting and child externalizing problems

One unexpected result of Drabick and colleagues (2006) was the lack of association between maternal parenting techniques and child aggression. This finding is inconsistent with strong theoretical and empirical evidence relating parenting and child externalizing behaviors. According to the social learning theory, children learn aggressive behaviors as a result of interaction with others in their immediate environment, caregivers in particular (Bandura, 1973; Bandura & Walters, 1959). Parenting provides the environmental framework for children's psychosocial growth (Bronfenbrenner, 1981), and child aggressive behaviors develop in interactions with parents through a coercive reinforcement process (Dishion & Patterson, 2006; Patterson, 1982). Vygotsky's social development theory that was used in Ukraine recognizes social and cultural influences of different contexts on the child's functioning and development (Vygotskiy & Cole, 1978). According to Vygotsky, children's learning and development happens due to social interaction with the specific sociocultural environment. Vygotsky believes that children first encounter new functions interpsychologically and then intrapsychologically. The child learns from a more knowledgeable other (MKO), often a parent, through guidance (scaffolding) in what Vygotsky called a "zone of proximal development" (ZPD; p. 86), representing a learning space for tasks that still require mastering. Young children can learn culturally- and

contextually-appropriate social and emotional skills in the ZPD and then translate them into other contexts. For example, children can learn about violence through parental spanking, and then use violence in relations with peers.

Relationship between parenting and child externalizing problems

In light of these theories, parenting can be assumed to be a primary context that shapes children's behaviors. Indeed, evidence suggests that such parenting aspects as consistency, positive parenting, involvement with the child, monitoring and supervision, physical punishment and non-corporal punishment discipline are directly related to development of children's readiness to meet social and emotional challenges (Frick, Christian, & Wootton, 1999). For example, in a U.S. study, children's externalizing behavior problems were positively related with inconsistent discipline as reported by mothers from Southeastern and Midwestern states (Gryczkowski, Jordan, & Mercer, 2010).

The risk of externalizing behavior problems was also higher for U.S., mostly White, children whose parents reported higher use of inconsistent discipline (Stanger, Dumenci, Kamon, & Burstein, 2004). Similarly, inconsistent discipline was associated with increased disruptive behaviors in a sample of 373 Australian children (Duncombe, Havighurst, Holland, & Frankling, 2012). Moreover, when targeted by intervention, reduction in use of inconsistent discipline led to decrease in child conduct problems in a U.S. randomized clinical trial (Jouriles et al., 2009).

In addition to consistent discipline, positive parenting helps in forming children's security and competence (Webster-Stratton, 2012). In a longitudinal study with mostly European Americans, parental warmth with 5–10 year old children predicted children's effortful control 24 months later and subsequently predicted decreased externalizing psychopathology when these children reached adolescent age (Eisenberg et al., 2005). The strong inverse relationship between positive parenting and child externalizing behavior was supported in a more recent longitudinal study with predominantly White U.S. children (Boeldt et al., 2012). Parents' praise and warmth were among protective factors helping 426 children in U.S. Head Start schools develop social competence, stay focused, listen to others, collaborate, and stay calm (Webster-Stratton & Hammond, 1998). Additionally, U.S. researchers found that lower child externalizing behaviors were reported among Latino immigrant families that used praise (Holtrop, McNeil Smith, & Scott, 2014). In a study with 233 Caucasian children from 12 counties in U.S. Georgia, higher paternal support was related to lower child externalizing behaviors (Harper, Brown, Arias, & Brody, 2006).

Involvement with the child is another parenting domain that has been negatively linked with child externalizing behaviors in studies performed in the U.S. cities of Vermont, Houston and Los Angeles (Stanger et al., 2004) as well as in rural to semirural areas in the U.S. Southern region (Frick et al., 1999). In another U.S. study with 135 cohabitating couples from Southeastern and Midwestern states, however, paternal involvement had a significant relationship with boys' externalizing problems while there was no significant association between maternal involvement and externalizing problems in children of either gender (Gryczkowski et al., 2010). Still, family involvement was a protective factor related to

decreased externalizing problems in a recent study with 919 adolescents in Santiago, Chile (Ma, Han, Grogan-Kaylor, Delva, & Castillo, 2012).

Further, poor monitoring was significantly associated with children's rule-breaking behaviors among in a sample of 251 U.S. families (Stanger et al., 2004). In another U.S. study that used a sample of 440 mothers and their 13-year old children, Pettit and colleagues (2001) also found that parental monitoring was linked to child externalizing behaviors and that parental monitoring was predicted by proactive parenting. Furthermore, a meta analysis of 161 manuscripts published between 1950 and 2007 revealed that parental monitoring was strongly linked with child externalizing problems (Hoeve et al., 2009). More recently, Kendler, Gardner and Dick (2011) found that parental monitoring serves a function of an environmental social constrain that moderates influence of genetic risk on adolescent externalizing behaviors.

Corporal punishment in another parenting dimension that was linked to children's externalizing problems. Some early research in the U.S. suggested that harsh physical punishment was linked to increase in externalizing problems for Caucasian children but was beneficial for African-American children who "had lower aggression and externalizing scores" when they received corporal punishment (Deater-Deckard, Dodge, Bates, & Pettit, 1996, p. 1069). A recent longitudinal study re-examined a differential cultural impact of physical punishment on children's adjustment in the United States. This study that used a nationally representative sample of 11,040 U.S. families, found that spanking was a common practice in the U.S. households with 80% of mothers reporting the use of corporal punishment at some point and 27% of mothers reporting current use of physical discipline with their kindergartners (Gershoff, Lansford, Sexton, Davis-Kean, & Sameroff, 2012). Gershoff and colleagues also reported significant paths from spanking to child externalizing problems and from child externalizing problems to spanking. Furthermore, their finding that these relationships were significant for Caucasian, African American, Hispanic and Asian race/ethnic groups.

The moderating effect of culture on the link between parental use of corporal punishment and children's externalizing behaviors was tested in China, India, Italy, Kenya, the Philippines, and Thailand (Lansford et al., 2005). Researchers found that in cultures where physical punishment was more common, it had lower negative impact on children's outcomes. Yet, in all participating countries, physical disciplining was related to increased levels of child anxiety and aggression. Similarly, corporal punishment was associated with increased externalizing psychopathology of Chilean adolescents (Ma et al., 2012). Ukraine has ratified the United Nation's Convention on the Rights of the Child (United Nations Children's Fund, 2005) that discourages use of corporal punishment for children. Still, the incorporation of children's rights principles into research and practice lags behind (Denizhna & Sova, 2010), and the prevalence of use of corporal punishment in Ukraine is still unknown.

Communist regime affected family values and diminished the role of parents in the upbringing of children (Ivanova, 2009). In Soviet time, Moscow authorities created in Ukraine social movements for children of three age groups. Children aged six to nine were

recruited to the Oktiabriata [Little Octobrists]. At the age of 10, children who behaved well in school and were academically successful were accepted to the Young Pioneer organization. Children who misbehaved or had lower grades were accepted to Pioneers during the next year. At the age of 15, Young Pioneers joined Komsomol, the youth division of the Communist Party of the Soviet Union, where they continued learning communist ideology. Ivanova (2009) described that Communist regime designed, selected and provided food, clothes, occupation, healthcare and the content of cultural education for all Ukrainian children in the uniform manner through the vehicle of children's movements. Hence, Ukrainian parents' ability to parent was substantially impaired for 70 years. Furthermore, Soviet authorities systematically eliminated Ukrainian national identity, language and family traditions as they fostered the socialist, collective identity and the use of Russian language.

According to Ivanova (2009), the post-Soviet Ukrainian government failed to continue providing appropriate behavior norms while families have not yet developed them, which left young people unprotected against influences of mass culture and economic interests. Denysiuk (2004) studied knowledge, attitudes and practices of childrearing in five Ukrainian regions in a sample of 756 parents (80% mothers). In this study, 76% of parents indicated a need in having additional information on parenting. Denysiuk reported that to achieve child compliance, 13% of Ukrainian parents used yelling, 10% used physical punishment, 7% threatened to use physical punishment and 8% threatened their children with mythical creatures.

Several Ukrainian researchers pointed that such factors as single parenthood and lack of support to parents (Bolkun, 2010), lower socioeconomic status and inability to build constructive and respectful relations with the child, and neglectful parenting (Chumak & Tkachenko, 2008) can lead to multiple negative behavior outcomes in children. Ukraine is one of the poorest countries in Europe with average monthly monetary income per one household equaling \$498 (UkrStat, 2013). Furthermore, in 22 of 27 Ukrainian regions the wages are lower than the national average. For example, the State Statistics Committee of Ukraine (UkrStat, 2015) reported that in Vinnytsia, the wages were lower by 22% than the national average. The influence of economic hardship on relationship between parenting and child externalizing problems has not been empirically examined with Ukrainian families. Therefore, a critical issue concerning the relationship between parenting behaviors and child externalizing behaviors in the model that takes into account important sociodemographic characteristics, such as parent and child age, child gender, parent education, employment, income and marital status, needs to be addressed in research focusing on Ukraine.

In prior studies, researchers reported that chronically poor children were likely to reduce externalizing behaviors when their parents gained employment and the family income increased (Dearing, McCartney, & Taylor, 2006). In one longitudinal study with White U.S. families (Family Transitions Project), Conger, Neppl, Kim, and Scaramella (2003) reported that single-parent status, lower education, income, and participants' age did not explain the intergenerational continuity of aggressive parenting or aggressive child behaviors. However, in the following study with participants recruited from the same project, a strong influence of socioeconomic disadvantage was observed (Scaramella, Neppl, Ontai, & Conger, 2008). Specifically, in this study, lower education and poverty in the first generation was related

with early parenthood in the second generation of participants. Next, younger parent age in the second generation predicted higher use of harsh parenting techniques with their children (third generation). Finally, children of parents who were younger and used harsh parenting behaviors were significantly more likely to exhibit externalizing behavior problems. In another study with White and African American participants, children also were more likely to develop externalizing behaviors if they had lower socioeconomic status, were of male gender, and were raised by single mothers (Deater-Deckard et al., 1996).

Unfortunately, the only study that examined the influence of parenting on child externalizing behaviors in Ukraine combined all discipline items into one predictor variable, maternal punishment (Drabick et al., 2006). Collapsing items measuring psychological and physical discipline in one variable, maternal punishment, might have attenuated the mutual impact of these items on child externalizing behavior. Moreover, Drabick and colleagues' model did not account for parent sociodemographic variables. Therefore, another study that would separately test the relationship between child externalizing behaviors and conceptually different parenting dimensions such as corporal punishment, inconsistent discipline, positive parenting techniques, involvement with the child and child monitoring, needs to take into account such crucial factors as parent age, education, income, marital status and employment.

The present study will examine the concurrent influences of parent and child sociodemographic characteristics and parenting on externalizing behaviors of Ukrainian children from 9 to 16 years of age. This age period is marked by dramatic social, cognitive and physical developmental changes as well as increases in child externalizing behaviors (Beauchaine & Hinshaw, 2008). Thus, it is important to investigate the relationship between child externalizing behaviors and parenting in Ukraine, a geographical setting, in which, to the best of our knowledge, such research has not been done.

Thus, this study aimed to explore the relationship between child externalizing problems and parenting practices in Ukraine. First, it was hypothesized that the child externalizing behavior will be associated with lower scores on positive parenting and involvement, and higher scores on corporal punishment, poor monitoring and inconsistent parenting. Second, it was hypothesized that the child's male gender and younger age, younger parent age, lower education, unemployment and single parenting status would provide additional explanation to variance in child externalizing behaviors.

Method

Participants

This study used a community-based sample of Ukrainian parents and children. The participants were chosen from 11 rural and urban communities to represent southern, eastern and central regions of the country. The author of this paper designed the study in partnership with the Ukrainian Methodological Psycho-medico-pedagogical Center of the Department of Education. The center approved the study according to Ukrainian law and standards for ethical research and then independently coordinated research interviews with participants, obtained informed consents and assents, and collected data from participants without

personal identifiers. The dataset, without personal identifiers of the participants, was then transferred to the author who obtained a determination of non-regulated status of the study from the University of Michigan Institutional Review Board.

The measures for this study were selected by the author based on previous experience with these measures in U.S. research studies where these measures had shown good psychometric properties (author reference). In the next step, the measures were translated into Ukrainian language using recommendations of Brislin (1970). Specifically, one bilingual translator completed the translation from English into Ukrainian and another bilingual translator back translated the measures from Ukrainian into English. A group of independent raters including a schoolteacher, a representative of the department of education, two social workers and a psychologist read the translation, identified errors and suggested alternative formulations that would tap more accurately into the meaning of items as well as match the language difficulty to the level of schoolchildren. Also, the measures were administered to a small group of children, and their feedback was incorporated into translations. Translators then performed the next round of translations. This process continued until there was an agreement between translators and the raters.

To recruit participants, Ukrainian school psychologists spread flyers and extended personal invitations to parents of children 9 to 16 years of age. The present study was a part of a larger study of Ukrainian children and families and, therefore, the recruiters invited families without regard to any specific mental health or behavior status. A total of 320 parent-child dyads (92% mothers) were interviewed in school premises (about 90%) and in participants' homes. Careful attention was paid to issues of privacy and the safety of participants. The final sample had an even distribution of children across ages and gender. That is, there were 40 children (50% boys) in each year of age (Table 1). Parents were on average 37.82 years of age ($SD = 6.50$), 70% were employed and the majority self-identified as Ukrainian (92%). About half of the parents (49%) completed vocational training, others had a university degree (26%), finished a few years of college (6%) or 11 grades or less of school (19%). Most of parents were married or lived with a partner (60%) while the rest were widowed, divorced, single or married and living separately. The average family income was \$406 ($SD = \255) ranging from \$12–\$150 (15%), \$151–\$300 (19%), \$301–\$450 (28%), \$450–\$600 (20%), to \$600–\$2,200 (18%).

Measures

Demographic characteristics—As part of this study, parents answered questions about their age (measured in years), employment and marital statuses, level of education (measured in total number of years spent at educational establishments), ethnicity and family income (measured in US \$ per month). Parents also answered questions about the age (measured in years) and gender of their children.

Child Externalizing Behavior—The Child Behavior Checklist for Ages 6–18 (CBCL/6–18; Achenbach & Rescorla, 2001), a widely used, well-standardized psychometric instrument with high validity and reliability, was utilized in this study. Parents answered 113 questions about the adjustment of their children using a three-point Likert scale from 0 (“not

true”), to 1 (“somewhat or sometimes true”), to 2 (“very true or often true”). The outcome variable used in this study was the Externalizing Problems scale (Cronbach’s $\alpha = .95$) that was a sum of 17 items measuring rule-breaking behavior (e.g., “Breaks rules at home, school, or elsewhere”) and 18 items measuring aggressive behavior (e.g., “Cruelty, bullying, or meanness to others”).

Parenting practices—The Alabama Parenting Questionnaire (APQ; Frick, 1991; Frick et al., 1999) is a widely used measure of parenting skills in the families with children who have behavior problems (Dadds, Maujean, & Fraser, 2003; Hawes & Dadds, 2006). The APQ consists of 42 items assessing positive and negative parenting practices grouped within the following areas: positive involvement with children (e.g., “you drive your child to special activities”); use of positive discipline techniques (e.g., “you praise your child when she does something well”); poor monitoring and supervision (e.g., “your child goes out without a set time to be home”); inconsistent disciplining (e.g., “the punishment you give your child depends on your mood”); use of corporal punishment (e.g., “you hit your child with the belt”); and other discipline practices (e.g., “you give your child extra chores as a punishment”). Parents rated the frequency with which the parenting practices typically occurred in their home on a 5-point scale ranging from 0 (“never”) to 4 (“always”). The APQ has demonstrated solid psychometric properties in studies evaluating the association between parenting practices and child behavior outcomes (Frick et al., 1999). The Cronbach α for Involvement subscale was .91, reliability alpha for Positive Parenting subscale was .92, the alpha for Corporal punishment was .86, for Poor Monitoring subscale, .79 and the alpha for Inconsistent Disciplining subscale was .67.

Overview of the Analyses

A multiple imputation procedure using predictive mean matching (Molenberghs & Kenward, 2007; Rubin, 1986) was utilized to impute missing cases (0.6%) with Stata (StataCorp, 2015). The fact that there was no statistical difference in sociodemographic characteristics between two groups suggests that the data were missing at random. After estimation of descriptive statistics and correlation analyses, a robust multiple regression was used to predict the outcome variable, a broad-band Externalizing behavior of children that comprises items from two scales, the Rule-Breaking Behavior Scale and the Aggressive Behavior Scale (Achenbach & Rescorla, 2001). Parenting practices were treated as predictor variables, and parent and child sociodemographic variables were included in the model as statistical control variables. Preliminary inspection of the family income variable revealed several outliers. These data points were not data entry errors and came from the same population as the rest of the data points. For this reason, the author decided to keep them in the analyses and use the robust method of regression, which accounts for influential outliers and data points that have high leverage (Fox, 1997; Li, 1985; Verardi & Croux, 2008). Another reason why robust regression was a preferred choice for these analyses is the fact that this method does not make assumptions about normality of the distribution of the dependent variable. This feature is particularly useful for this sample in which most children had lower scores on Externalizing behaviors, skewness = 1.33, $p < 0.001$.

Preliminary examination of predictor variables revealed a strong correlation between positive parenting and involvement scales $r(318) = .70$. However, the estimated variance inflation factor (VIF) indicated that independent variables were not affected by multicollinearity. The VIF scores above 5 raise concern for collinearity (O'Brien, 2007). In this study, none of the predictor variables had a score close to this criterion. The highest VIF scores were found for parent involvement (VIF = 2.31) and for positive parenting (VIF = 2.49).

Because parenting practices and sociodemographic variables differ on measurement scales, standardized coefficients were computed to estimate relative effect sizes of predictors (Acock, 2012). Predictor variables were entered in the model in two steps. First, the regression analyses were made with child and parent sociodemographic characteristics only. In the next step, parenting variables analyses were entered in the regression model.

Results

Table 1 provides statistics for the analytic sample ($N = 320$). The scales in this study showed moderate to strong internal consistency reliability ranging from $\alpha = .67$ to $\alpha = .95$.

Achenbach and Rescorla (2001) reported that mean raw score of externalizing CBCL problem scale for U.S. non-referred normative samples was 7.05 (T score mean = 50.05), for boys and 6.30 (T score mean = 50.1), for girls. In the present Ukrainian sample, the mean for CBCL externalizing problem scale was 13.68 (T score mean = 51.97) for boys and 9.38 (T score mean = 48.03), for girls. Furthermore, in this sample, 20% ($n=32$) of boys and nine percent ($n=14$) of girls met a clinical cutpoint for externalizing behavior problems (T score = 60 or above; Achenbach & Rescorla, 2001).

Parents' scores on positive parenting practices (Positive Parenting and Involvement) were higher than on negative practices (corporal punishment, poor monitoring and inconsistent discipline; Table 1). Regarding the use of corporal punishment, 69% of parents reported spanking their children with a hand, 56% slapped their children and 43% used a belt or a switch or another object when their children did something wrong. Overall, the majority of parents (75%) reported use of corporal punishment with their children.

Table 2 shows correlations among study variables. The corporal punishment and poor monitoring had the strongest association with child externalizing behavior problems followed by positive parenting.

Results of the robust regression are illustrated in Table 3. In Model 1, male gender of the child ($\beta = .17, p = .01$), older child age ($\beta = .11, p < .05$), lower parent education ($\beta = -.20, p < .001$) and unemployment ($\beta = -.14, p < .05$) as well as parental non-married status ($\beta = -.14, p < .01$) were significantly related with child externalizing behavior problems. When parenting variables were entered in the Model 2, child male gender ($\beta = .13, p < .01$), parental non-married status ($\beta = -.10, p < .05$), lower use of positive parenting ($\beta = -.16, p < .05$), higher score on poor monitoring ($\beta = .27, p < .001$) and corporal punishment ($\beta = .23, p < .001$) demonstrated a significant relationship with higher score on child externalizing behaviors. The final model explained 44% of the variance in child externalizing behaviors

($R^2 = .44$, $F(12, 307) = 20.33$, $p < .001$). Table 3 provides additional details of these results, including unstandardized coefficients and standard error.

Discussion

Previous research in Western countries documented high societal costs associated with externalizing behavior problems (Craig et al., 2011). The finding that Ukrainian children might have more externalizing symptoms than their peers in the West raises significant public health concerns and requires additional investigations with national samples. Next, findings provide support for the hypotheses that child externalizing problems are associated with the child-level factors as well with factors in the proximal ecologies of children (Bronfenbrenner, 1981).

Several sociodemographic variables were related to child externalizing problems in this sample. First, consistent with hypothesis two, the child's male gender and single parenting status were significantly related with higher scores on child externalizing behavior problems. These results are consistent with prior research and were expected (Beauchaine & Hinshaw, 2008; Deater-Deckard et al., 1996). As in the study of Dearing et al. (2006), unemployment among Ukrainian parents was significantly related to increased child externalizing psychopathology. Next, results provided support for the hypothesized positive relationship between child externalizing behaviors and the age of the child. Finally, consistent with previous research (Scaramella et al., 2008), parent education had a significant negative association with child aggression and delinquency in the Ukrainian sample.

Prior psychometric research with APQ parenting scales in Australia reported lower reliabilities of poor monitoring and corporal punishment scales (Dadds et al., 2003). In this study with Ukrainian families, these scales had good reliability. However, the inconsistent parenting scale showed somewhat lower reliability ($\alpha = .67$), which was also observed in the previous study using the APQ with German youth ($\alpha = .54-.62$; Essau et al., 2006). Future research needs to explore beliefs of Ukrainian parents regarding this parenting dimension.

Three-fourth of parents in this sample reported lifetime use of corporal punishment with their children. This number is similar to findings of Gershoff and colleagues (2012) who reported that 80% of U.S. mothers spanked their children at some point. The use of corporal punishment had a large effect size on child externalizing behaviors in the present study. These findings are consistent with prior research in other countries (Gershoff, 2002, 2010, 2013; Gershoff et al., 2012; Ma et al., 2012). The results suggest that, in Ukraine, corporal punishment of children is still a widely accepted parenting practice; even though, Ukraine has ratified the Convention on the Rights of the Child in 1991 (United Nations, 2015). Gershoff and colleagues (2012) longitudinal data supported Patterson's theory on coercive cycle of parenting. Although the present cross-sectional results are consistent with that research, future longitudinal studies are needed to understand the magnitude of influence of the corporal punishment on the development of externalizing problems and the effect of externalizing problems on parental use of discipline methods.

Furthermore, as predicted, higher scores on child externalizing behavior were associated with higher scores on poor monitoring. This finding strongly aligns with a prior international research that children who receive less supervision from parents are more likely to engage in rule-breaking behaviors (Hoeve et al., 2009; Kendler et al., 2011; Pettit et al., 2001; Stanger et al., 2004). Likewise, lower child externalizing behavior was significantly associated with higher scores on positive parenting. Consistent with previous research (Boeldt et al., 2012; Eisenberg et al., 2005; Holtrop et al., 2014), Ukrainian children had lower aggression and fewer acts of rule-breaking behaviors when their parents hugged and praise them and rewarded their good behavior.

The lack of a significant relationship between the child Externalizing problem scale and inconsistent parenting was contradictory to hypothesis one. It is possible that some caregivers in Ukraine provide reactive parenting and apply punishment after undesired behavior has already happened. However, it is also quite possible that other Ukrainian parents believe that there is no harm in just threatening a child and do not carry out a threat. Hence, additional research is needed to examine how Ukrainian parents communicate desired behaviors to their children and how they apply tangible consequences if the child fails to behave as desired.

Likewise, the hypothesized association between child externalizing behaviors and low involvement with the child was not supported by these data. Although there was a significant correlation between these two variables, in the regression model that also included other parenting practices, parent involvement was not a significant predictor. One explanation of this finding can be that two items of the APQ measure were designed for the Western, more developed societies. One of these items asks about frequency with which parents drive their children to school. Ukraine is one of the poorest countries in Europe (World Bank, 2015) and fewer Ukrainians can afford driving their children to schools. In addition, Ukraine has an advanced public transportation system and parents often use it to take their children to schools. Because many families still drive their children to schools, the present study preserved the language of the original measure.

Another question asks about parents helping their children with special activities, such as sports and scouts. Such special activities were publically funded and widely available before the collapse of the Soviet Union. Presently, many of them are being reestablished and are frequently offered on a commercial basis, especially in larger cities. Our sample includes children from rural and urban areas, therefore we decided to keep this item unchanged.

In sum, the APQ demonstrated adequate performance in the Ukrainian sample. It is possible that Ukrainian parents would report higher involvement with their children as measured by offering a child individual transportation if the country's economy was stronger. Likewise, higher availability of recreational and extracurricular opportunities in Ukrainian communities could be related to more frequent use of these resources by Ukrainian families. Yet, it is also possible that the effect size of parental involvement with children is not sufficiently large to overpower the effects of poor monitoring and corporal punishment. The APQ was translated as close to the original measure as possible because of its high face

validity and the evidence from this study suggests that the APQ can be an effective tool to measure parenting in the Ukrainian sociocultural context.

The present study used a sample of parents whose children were between nine and 16 years of age. Therefore, the limited age range of parents in this study may have weakened the strength of association between parent age and child externalizing behaviors. Future studies should include parents of broader age span. The relationship between lower parent education was significantly related with child externalizing problems in the model that did not account for parenting. This relationship became non-significant when all variables were included in the regression model. Finally, family income was not significantly associated with child externalizing problems. The total household income reported in this sample was only 10% lower than the average estimated household income in the participating regions (UkrStat, 2013). Because majority of Ukrainian families have a very low income, the difference in wealth might not be large enough to reflect on parenting behaviors.

Although this study used reliable measures with a large sample of Ukrainian parents, the results of this research might be influenced by the following limitations. First, this study used a cross-sectional design, which limits the ability to make causal inferences. However, when it comes to parent-child interactions, prior research found them to be bidirectional (Gershoff et al., 2012; Patterson, Dishion, & Bank, 1984). That is, inept parenting was found to be related with child aggression and child aggression, in turn, was associated with inept parenting. Still, future studies should use longitudinal and experimental designs to understand temporal aspects of the relationship between sociodemographic factors, parenting and child externalizing behaviors in Ukraine. Second, this study is limited to parents of children between 9 and 16 years of age. Therefore, it does not discriminate between children who have externalizing problems from preschool age and children who developed these problems during adolescent age. This knowledge is critical because childhood-onset externalizing behavior are often caused by neurocognitive deficits and adverse social and family dynamics and persists into adulthood age while adolescence-limited externalizing behaviors are often caused by negative peer influences and fade away in early adulthood (Moffitt, 1993). Given this important distinction, future Ukrainian studies should collect information on externalizing problems across childhood and adolescence ages.

This study used measures that have not been validated in Ukraine. However, the measures were carefully translated and approved by a group of experts including psychologists, social workers and teachers. Another limitation of this study may be that parents underreported the use of corporal punishment because of Ukrainian laws that prohibit hitting children. Finally, even though study participants were recruited in multiple municipalities, these results can be limited by the use of convenience sampling.

In sum, this study makes an important contribution to the emerging evidence on the relationship between parenting practices, social and demographic characteristics, and child externalizing behavior problems in Ukraine. These results can be used in various public health initiatives aimed to help children with aggression and delinquency problems in Ukraine. Parent education programs should stress the importance of use of positive parenting

techniques as well as teach parents how to avoid the use of physical punishment. Finally, Ukrainian parents can benefit from the information about importance of child supervision and monitoring.

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Table 1

Study Variables (N=320)

Variable	<i>M</i>	<i>SD</i>	Actual range	Potential range	Coefficient alpha
Externalizing problems	11.53	10.93	0–50	0–56	.95
Aggression	5.68	4.82	0–22	0–22	.89
Delinquency	5.85	6.58	0–28	0–34	.92
Involvement	24.11	8.35	0–40	0–40	.91
Positive parenting	17.38	5.14	0–24	0–24	.92
Poor monitoring	15.63	6.86	0–33	0–40	.79
Inconsistent disciplining	9.91	3.78	0–23	0–24	.67
Corporal punishment	3.11	2.84	0–12	0–12	.86
Child gender (%)					
Boy	50.00				
Girl	50.00				
Child age (years)	12.50	2.29	9–16	9–16	
Parent age	37.82	6.50	24–63	18–99	
Parent education (years)	13.26	2.10	4–16	4–16	
Parent employment (%)	70.00				
Married parents (%)	49.38				
Income (US\$)	405.73	254.81	12–2209		

Note. *M* = mean; *SD* = standard deviation

Table 2

Pearson Correlations (N = 320)

	EX	CS	CA	PA	PE	EM	MS	FI	IN	PP	PM	ID	CP
EX	-												
CS	.20 [*]	-											
CA	.11 [*]	.00	-										
PA	-.04	.09	.32 [*]	-									
PE	-.32 [*]	-.11	-.08	.05	-								
EM	-.25 [*]	-.05	-.01	-.06	.32 [*]	-							
MS	-.20 [*]	-.05	-.02	-.01	.13 [*]	.09	-						
FI	-.26 [*]	-.06	-.15 [*]	-.11	.43 [*]	.35 [*]	.24 [*]	-					
IN	-.44 [*]	-.09	-.33 [*]	-.02	.31 [*]	.23 [*]	.15 [*]	.24 [*]	-				
PP	-.50 [*]	-.10	-.20 [*]	.04	.23 [*]	.20 [*]	.13 [*]	.16 [*]	.70 [*]	-			
PM	.53 [*]	.12 [*]	.33 [*]	.00	-.37 [*]	-.14 [*]	-.14 [*]	-.27 [*]	-.52 [*]	-.47 [*]	-		
ID	.16 [*]	.05	.05	.09	-.23 [*]	-.08	-.07	-.08	-.12 [*]	-.08	.34 [*]	-	
CP	.52 [*]	.01	.09	-.16 [*]	-.29 [*]	-.17 [*]	-.08	-.19 [*]	-.43 [*]	-.58 [*]	.55 [*]	.28 [*]	-

Note. * statistically significant at $p < .05$ level or greater. EX = child externalizing; CS = child sex (male); CA = child age; PA = parent age; PE = parent education; EM = parent employment (employed); MS = marital status (married); FI = family income; IN = involvement; PP = positive parenting; PM = poor monitoring; ID = inconsistent disciplining; CP = corporal punishment.

Table 3
Relationship between Parenting Practices and Child Externalizing Behaviors (N = 320)

Predictor	Model 1			Model 2		
	B	SE	β	B	SE	β
Male child gender	3.62**	1.13	.17	2.75**	.95	.13
Child age	.54*	.25	.11	-.25	.23	-.05
Parent age	-.17	.09	-.10	.007	.07	.003
Parent education	-1.01***	.42	-.20	-.25	.23	-.05
Parent employment	-3.44*	1.44	-.14	-2.16	1.17	-.09
Marital status	-3.01**	1.13	-.14	-2.08*	.95	-.10
Family income	-.003	.002	-.08	-.001	.002	-.03
Involvement				-.48	.63	-.04
Positive parenting				-2.07*	.94	-.16
Poor monitoring				4.26***	.92	.27
Inconsistent discipline				-.74	.86	-.04
Corporal punishment				2.80***	.69	.23
R-squared		.20			.44	
F		11.43***			20.33***	

Note. SE = standard error.

* $p < 0.05$,

** $p < 0.01$,

*** $p < 0.001$.