Published in final edited form as:

Fam Relat. 2017 December ; 66(5): 854–866. doi:10.1111/fare.12289.

Predictors of Internalizing Behaviors in Ukrainian Children

Viktor Burlaka,

University of Mississippi

Yi Jin Kim,

University of Mississippi

Jandel M. Crutchfield,

University of Mississippi

Teresa A. Lefmann, and

University of Mississippi

Emma S. Kay

University of Alabama

Abstract

Objective—To (a) estimate the level of child internalizing problems in a sample of Ukrainian school-age children and (b) examine the relationships between child internalizing psychopathology and parenting practices, depression, alcohol use, and sociodemographics.

Background—Most research on child internalizing behaviors has used samples from high-income countries, but there is a lack of information about children's behaviors and associated risk and protective factors from low- and middle-income countries such as Ukraine. An ecological–transactional model framework was used in this study to examine maternal and family-level factors associated with child internalizing behavior problems.

Method—Data were gathered from a community-based sample of Ukrainian mothers and children between 9 and 16 years of age ($n = 251$) using face-to-face interviews. Multiple linear regression analysis was used to examine the relationship among the independent variables (e.g., alcohol use, depression, and parenting behaviors) and children's internalizing behaviors.

Results—Older children, especially boys, reported fewer internalizing problems. Increased internalizing symptomatology was associated with mothers' older age, higher level of depression, lower use of positive parenting, and poor child monitoring and supervision.

Conclusion—These results raise awareness about the importance of child familial backgrounds while trying to address child mental health problems in Ukraine.

Implications—Family practitioners may want to help mothers learn and apply positive parenting and effective supervision and monitoring skills to help reduce their children's depression and anxiety symptoms. Additionally, helping to decrease maternal depression may have a positive trickle-down effect on their children's internalizing behaviors.

Keywords

Child internalizing behaviors; positive parenting; parent–child relationships; Ukrainian families

Internalizing behaviors such as depression and anxiety are an important public health issue (American Psychiatric Association, 2013). Among children, internalizing problems often stem from environmental factors (Cicchetti & Toth, 1998) and may cause serious functional impairments later in life (e.g., Bittner et al., 2007; Dekker et al., 2007). Child and parent characteristics, cultural norms, and parenting behaviors may also play a role in the development of child internalizing behaviors (Beauchaine & Hinshaw, 2008). However, most studies in this area have focused on children living in high-income countries, which overlooks the unique risk factors of children living in low- and middle-income countries such as Ukraine (Røttingen et al., 2013). The present study addresses the research gap by employing an ecological–transactional model framework (Cicchetti & Toth, 1998) to investigate child internalizing behaviors in the Ukrainian sociocultural context.

Theoretical Frameworks for Internalizing Behaviors

Child-level risks that emerge via interaction with family and societal structures are consistent with social development theory (Vygotsky & Cole, 1978), as well as the social ecological framework (Bronfenbrenner, 1981). Cicchetti and Toth (1998) proposed that internalizing psychopathology can be viewed as an ontogenic developmental issue related to the inability of a child to fully maintain homeostatic regulation. The literature shows that children with internalizing problems tend to direct harmful behaviors at themselves (Achenbach & Rescorla, 2001; Ackerson, 1942), which makes it more difficult to adequately identify and study these problems (Cicchetti & Toth, 1998; Epkins, 1995; Epkins & Meyers, 1994). In the present study, we addressed this methodological limitation by using children's self-reports of internalizing symptoms.

Child Age and Gender as Risk Factors

Several child-level factors have been found to be associated with the development of child internalizing problems. Consistent with Zahn-Waxler's (1993) conceptual framework postulating that boys tend to have more adjustment problems than girls, one study of young children found that boys had higher scores than girls on internalizing problems (Burlaka, Bermann, & Graham-Bermann, 2015). However, a study of older children found that girls were more likely than boys to experience anxiety, and elementary-school-age children were at slightly higher risk for anxiety than children 13 to 18 years of age; 50% of cases of anxiety disorder emerge in children between 6 to 12 years of age (Costello, Egger, Copeland, Erkanli, & Angold, 2011). As for the risk of depression, it tends to be higher in post- than prepubertal populations (Allgood-Merten, Lewinsohn, & Hops, 1990), and among European American girls in particular (Christie-Mizell, Pryor, & Grossman, 2008). Similarly, in a study of children from Chornobyl and Kyiv, girls were at higher risk for depression than boys (Drabick, Beauchaine, Gadow, Carlson, & Bromet, 2006). Although the authors examined the impact of gender on child depressive symptomatology, child age was not included as predictor variable in Drabick et al.'s study. Also, little is known about

the risk of internalizing problems among children from regions of Ukraine less affected by the Chernobyl disaster. Additionally, there are other difference between Ukrainian regions, and in some of them residents continue to encounter unique challenges (e.g., monthly salaries in the Vinnytsia region tend to be roughly half what they are less than 170 miles to the northeast, in Kyiv; UkrStat, 2017). The need to fill the gaps in these important areas as well as Ukraine's high rate of mental disorders and suicidal ideation highlight the necessity for additional research on children living in other parts of Ukraine.

Family and Mother Risk Factors (Microsystem Level)

The ecological–transactional model (Cicchetti & Toth, 1998) is built on Bronfenbrenner's (1981) ecological systems framework that divided ecological space into micro-, exo-, and macro-systems. At the microsystem level, children's family context can influence the development of depressive symptoms through genetic and interactional mechanisms (Goodman et al., 2011; Rice, Harold, & Thapar, 2002). For example, living with an alcoholic parent may put additional stress on children and exacerbate the effects of negative events in children's lives (Roosa, Beals, Sandler, & Pillow, 1990). Several international studies found that children of alcoholic parents are at higher risk for having depressive symptoms (Chassin, Pitts, DeLucia, & Todd, 1999; Christensen & Bilenberg, 2000; Hammen, Rudolph, Weisz, Rao, & Burge, 1999; Plant, Orford, & Grant, 1989; Roebuck, Mattson, & Riley, 1999; Sher, 1997). Specific to Ukraine, parental alcohol use is both directly and indirectly (via increased intimate partner violence and detrimental effects on family cohesion and flexibility) associated with the quality of parenting (Burlaka, Graham-Bermann, & Delva, 2017). Still, little is known about the association between parental alcohol consumption and internalizing problems among children living in Ukraine.

Although parental alcohol consumption tends to contribute to child depression, not all children of alcoholic parents experience mental health issues (Seilhamer & Jacob, 1990; Werner, 1986). Therefore, other factors that might influence these differential health outcomes need to be considered. One such factor, younger maternal age, has been associated with lower satisfaction from parenting (Ragozin, Basham, Crnic, Greenberg, & Robinson, 1982), less affectionate child-rearing (Belsky, 1984), and, for children, less successful school performance and increased rule-breaking behaviors, substance abuse, and mental health problems (Fergusson & Woodward, 1999). Nonetheless, evidence regarding the relationship between maternal age and child depression remains inconclusive. Some researchers have found that children of younger mothers are at higher risk for internalizing problems (Fergusson & Woodward, 1999; Tearne et al., 2015). However, others have not found a relationship between maternal age and child mood disorders (Buizer-Voskamp et al., 2011; McGrath et al., 2014), and some have found that children who were born to older mothers had statistically higher levels of depression, anxiety, and stress in early adulthood than did those born to younger mothers (Tearne et al., 2016).

While investigating additional factors related to internalizing behaviors in children, some researchers have found that mothers' education level was strongly associated with the development of mental health problems among their children (Bøe, Hysing, Stormark, Lundervold, & Sivertsen, 2012), including internalizing symptoms (Burlaka et al., 2015;

Carneiro, Meghir, & Parey, 2013; Christie-Mizell et al., 2008). A study of European youth found that, relative to children of parents with higher education levels, those with parents of lower education levels had increased odds of experiencing internalizing symptoms, feeling stressed, being less active, feeling less energetic, and experiencing fewer positive emotions and perceptions about life (von Rueden, Gosch, Rajmil, Bisegger, & Ravens-Sieberer, 2006).

In addition to low parental education, family poverty has been linked with child emotional and behavior problems (Bøe, Øverland, Lundervold, & Hysing, 2012). In one study, household income was not a statistically significant predictor of child and adolescent depression in models that accounted for effects of maternal employment, education, depression, and parenting (Christie-Mizell et al., 2008). However, other researchers have found that children living in poor households are more likely to be withdrawn and experience symptoms of anxiety and depression than their counterparts living in nonpoor households (Wadsworth & Santiago, 2008). Slopen, Fitzmaurice, Williams, and Gilman (2010) found that the risk for internalizing problems was nearly 2 times higher for children who came from impoverished backgrounds and experienced food insecurity.

In the child's microsystem, family economic disadvantage is also associated with a higher risk of parent depression (Reising et al., 2013), which strongly predicts youth internalizing problems (Christie-Mizell et al., 2008). Longitudinal research suggests children who were born to mothers with more depressive symptoms had statistically higher risk of suicide when they reached 16 years of age than those whose mothers exhibited minimal depressive symptoms (Hammerton et al., 2015). Furthermore, Goodman et al. (2011) found statistical associations between maternal depression and both child internalizing and externalizing problems, as well as disrupted affect regulation, although the magnitudes of these correlations were small. Weissman et al. (2006) found that when mothers' symptoms of depression declined as a result of treatment, symptoms of depression also declined among their children.

The limited relevant research in Ukraine suggests that child conduct problems and depressive symptoms are positively related to maternal depression and coercive discipline. Drabick and colleagues (2006) provided useful, albeit somewhat limited, evidence on Ukrainian parents' coercive parenting practices, including nagging, physical punishments and insults, and yelling. Other researchers have reported that children had fewer anxiety and depression symptoms if they lived in conflict-free homes with mothers who were more agreeable, supported their participation in discussions, stayed calm and positive even when children misbehaved, and also kissed and hugged children and avoided corporal punishment (Christie-Mizell et al., 2008; Reising et al., 2013; Yap & Jorm, 2015). However, the risk for development of depressive symptomatology was higher among parents who used inconsistent discipline (Yap & Jorm, 2015), provided poor monitoring and supervision of their children (Cicchetti & Toth, 1998), and used corporal punishment (Gershoff & Grogan-Kaylor, 2016). In the present study, we offer additional evidence on the relationship between child internalizing problems and parenting practices that have not been previously studied in Ukraine, including child monitoring and supervision, use of positive parenting, involvement with the child, and the use of inconsistent discipline.

Exo- and Macro-System Risk Factors

Bowen's (2004) family systems theory suggests that emotional processes in society often lead to emotional disruptions in families. Cicchetti and Toth (1998) emphasized the need to expand research on child internalizing psychopathology that accounts for the influence of children's schools, neighborhoods, and larger communities, which may vary in levels of adversity, support, and the availability of treatment for internalizing problems. Factors at the national level may also affect child development. On this point, it is important to provide some background on Ukraine, which has a relatively high rate of mental illness (Bromet et al., 2005, 2007). It also ranks sixth in the world for consumption of alcohol (World Health Organization, 2014), where 39% of adult men and 9% of adult women engage in heavy alcohol use (Webb et al., 2005). Heavy drinking is also found among pregnant women: Bakhireva et al. (2011) reported that 25% of women in Ukraine who are aware of their pregnancy consume more than two alcoholic drinks per week. Ukraine also has a high prevalence of mood disorders, including a documented 10% of males and 21% of females (Bromet et al., 2005), and suicide ideation within Ukraine is among the highest in Europe with an 8.2% lifetime prevalence rate (Bromet et al., 2007).

Ukraine is the largest country by land mass entirely in Europe and has roughly 43 million inhabitants (UkrStat, 2015), but it is among Europe's poorest countries with a mean monthly family income equivalent to 498 U.S. dollars (UkrStat, 2013). Economic disadvantage is known to interfere with parenting ability (Drabick et al., 2006; Reising et al., 2013). Additionally, Ukraine is a post-communist country in which individual child mental health problems have often been forsaken in favor of collective well-being (Rouhier-Willoughby, 2008). Ukrainian medical schools do not have child psychiatry departments, and child psychiatrists are trained through brief postgraduate courses and internships (SNAPE, 2017). In addition to poverty and lack of infrastructure, Ukrainians with mental health problems tend to avoid treatment services offered by psychiatrists because of stigma, high costs, and poor quality of care (Burlaka, Churakova, Aavik, & Goldstein, 2014). Despite the high prevalence of mental illness among Ukrainian adults, little is written about child internalizing problems and their correlates. However, it is likely that Ukraine's socioeconomic hardships and lack of mental health care access has shaped parenting practices (Drabick et al., 2006; Reising et al., 2013) and, therefore, child development (Christie-Mizell et al., 2008).

Hypotheses

Consistent with Bronfenbrenner (1981), the specific objectives addressed in this study were to examine the association between child internalizing behaviors and processes in the environment of the child. Specifically, we focused on parenting, alcohol use, depression symptoms, and the sociodemographic backgrounds of the mothers. We also compared the self-reports from Ukrainian children with a normative sample of American children to understand whether Ukrainian children are different from American children with regard to levels of internalizing psychopathology. On the basis of the preceding literature review, we developed the following hypotheses specific to Ukrainian children:

H1: Ukrainian children will report more internalizing behaviors than U.S. children.

H2: Child internalizing behaviors are negatively associated with age and male gender.

H3: Child internalizing behaviors are negatively related to household income and maternal education and are positively related to maternal age, depression, and alcohol use.

H4: Child internalizing behaviors are negatively related to maternal involvement, use of positive parenting techniques, and monitoring and supervision and are positively related to inconsistent maternal use of discipline and corporal punishment.

Method

Participants and Recruitment

We used data from the Ukrainian Child and Family Study (for additional details, see Burlaka, Grogan-Kaylor, Savchuk, & Graham-Bermann, 2017). The data were collected in rural and urban communities in the southern (Odesa oblast), eastern (Dnipropetrovsk oblast), and central (Vinnytsia oblast) regions of the Ukraine under the auspices of the Ukrainian Methodological Psycho-Medico-Pedagogical Center of the Department of Education. All measures were translated into Ukrainian and back-translated into English by professional translators. Next, all items were reviewed and approved by a group of parents, schoolteachers, social workers, and Ukrainian and American psychologists. Participants were recruited through flyers and personal invitations from psychologists and school social workers, who then arranged and conducted most of the face-to-face interviews in private locations on school premises; about 10% of interviews were conducted in participants' homes. The study was implemented in compliance with Ukrainian legislation on the protection of research participants' rights (Ministry of Education, 1999; Verkhovna Rada, 2003). Every mother signed a written informed consent form, and every child signed a written assent form before answering the questions. We received the data without personal identifiers.

In this study, we used data from children between 9 and 16 years of age and their mothers ($N_{\text{dyads}} = 251$). A small majority (53%) of the dyads comprised girls. Most participants (95%) were Ukrainian; others were Russian, Romani, Polish, and Armenian. Among mothers, 18% had not completed more than secondary school, 50% had a vocational degree, 5% had several years of college, and 26% had university degrees. About one quarter (26%) of mothers were single; others were married or had partners. Additional mother and child characteristics are presented in Table 1, which also includes descriptive statistics for all study variables.

Measures

Sociodemographic variables—Children answered questions about their age and gender. Mothers answered questions about their age, number of years spent in school, and household income.

Youth internalizing behaviors—Children reported on their internalizing behaviors—the outcome variable in the present study—using the Internalizing Problems Scale of the Youth

Self-Report (YRS; Achenbach & Rescorla, 2001), which comprises 13 anxiety/depression items (e.g., “I am afraid of going to school,” “I am self-conscious or easily embarrassed,” “I feel worthless or inferior”), eight withdrawal/depression items (e.g., “I would rather be alone than with others,” “I keep from getting involved with others”), and 11 somatic complaints items (e.g., “Physical problems without known medical cause: aches, pains”). Each item has three response options: *not true* (scored as 0), *somewhat true* (1), and *very true* (2). Scores are calculated by summing responses, with higher score corresponding to more internalizing behavior. Achenbach and Rescorla reported a Cronbach’s alpha of .90 for the Internalizing Problems Scale; it was .87 in the present study.

Frequency of alcohol use—Items from the Drinking and Drug History and Current Use Patterns Questionnaire (Zucker, Fitzgerald, & Noll, 1990) were used to measure the frequency of alcohol consumption among mothers during past 12 months. The series of three items asked mothers about their use of wine, beer, and liquor on an 11-point scale (0 = *never*, 1 = *less than once a year*, 10 = *3 or more times a day*). Specifically, mothers were asked, “How often do you usually have wine or a punch containing wine?” This question was then repeated to ask about beer and whiskey or liquor use (such as martinis, manhattans, highballs, or straight drinks including scotch, bourbon, gin, vodka, rum, etc.). Next, the responses were converted to represent the number of occasions on which mothers used individual beverages. To obtain quantity estimates of mothers’ annual drinking, for example, “once a month” was scores as 12 (drinks per year) and “three or more times a day” was recoded as 1,460 (based on an approximation of four drinks per day for this response). Responses across the three drink types items were then used to calculate a total annual estimate of alcohol consumption.

Parenting practices—The 42-item Alabama Parenting Questionnaire (APQ; Frick, 1991; Frick, Christian, & Wootton, 1999) measures six areas of parenting skills. Five of them were used for the present study: involvement (e.g., “you drive your child to special activities,” 10 items, Cronbach’s $\alpha = .91$), positive parenting (e.g., “you praise your child when she does something well,” six items, Cronbach’s $\alpha = .92$), poor monitoring/supervision (e.g., “your child goes out without a set time to be home,” 10 items, Cronbach’s $\alpha = .78$), inconsistent discipline (e.g., “the punishment you give your child depends on your mood,” six items, Cronbach’s $\alpha = .66$), and use of corporal punishment (e.g., “you hit your child with the belt,” three items, Cronbach’s $\alpha = .86$). Each item had five response options ranging from *never* (0) to *always* (4). A mean score was calculated for each area, with higher scores indicating greater use of each parenting practice.

Maternal depression—Each mother completed the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), which assesses how frequently respondents experienced emotions such as being “lonely,” “happy,” and “hopeful about the future” over the preceding week. Response options for each emotion ranged from *none of the time* (0) to *most or all of the time* (3). After reversing positive items, scores were summed for a possible range of 0 to 60; higher scores corresponded with more depression symptomology. The internal consistency (Cronbach’s α) in the present study was .90.

Analyses

First, we obtained descriptive statistics on our data. Although 13% of the cases had missing values, a preliminary sensitivity analysis revealed that there was no statistical difference in child internalizing behaviors among participants who had complete data and those who had missing data. Therefore, only complete cases were included in the study. Next, we conducted a series of correlation analyses to identify strength and direction of bivariate associations among predictor variables and between each predictor and dependent variable.

We then conducted a multiple linear regression using Stata/MP statistical software package (StataCorp, 2015). Child internalizing behavior was treated as the dependent variable, and predictor variables included child and mother sociodemographic variables as well as mother depression, alcohol use frequency, and parenting practices. We computed the standardized betas to estimate the relative strength of individual predictor variables within the model.

Results

Descriptive Statistics

Table 1 provides descriptive statistics for the study variables. The reported mean raw score of internalizing behaviors on the YSR for nonreferred normative samples in the United States was 8.3 (T-score $M = 50.0$) for boys and 11.6 (T-score $M = 50.1$) for girls (Achenbach & Rescorla, 2001). The mean raw score of child internalizing problems in this study was 12.0 (T-score $M = 48.81$) for boys and 14.0 (T-score $M = 51.1$) for girls (H1). Additionally, in our sample, 16% ($n = 24$) of girls and 13% ($n = 18$) of boys met a borderline cutoff for internalizing behavior problems (T-score ≥ 60); among them, 8% ($n = 11$) of boys and 11% ($n = 17$) of girls were in the clinical range (T-score ≥ 63 ; Achenbach & Rescorla, 2001). Ninety-eight percent of families reported a total monthly family income from \$12 to \$860, and 2% reported that their family income was \$1,070 or higher (up to \$2,200).

The mean score on positive parenting scales (including involvement and positive parenting) was higher than on negative parenting scales (i.e., poor monitoring, corporal punishment, and inconsistent discipline). In this sample, frequency of alcohol use ranged from 0 to 2,125 drinks per year ($M = 162.8$, $SD = 253.2$). Only 9% of mothers abstained from drinking, and the median number of times mothers used alcohol was 72 (interquartile range = 18.5–186.0). Importantly too, 47% of mothers were at risk for clinical depression (cutoff score = 16; Radloff, 1977).

Multiple Linear Regression Analysis

Results of the regression analysis are presented in Table 2. Child age ($\beta = -.20$, $p = .004$) and gender ($\beta = -.12$, $p = .045$) were negatively associated with self-reported child internalizing behaviors (H2), indicating that younger children and girls were at higher risk than older children and boys, respectively. Maternal factors (H3) associated with increased risk for child internalizing behaviors were older age ($\beta = .15$, $p = .025$) and depression ($\beta = .30$, $p < .001$). Maternal alcohol use, education level, and household income were not statistically associated with child internalizing behaviors in these data. With regard to parenting factors (H4), there was a negative statistical association between mothers' use of

positive parenting and child internalizing problems ($\beta = -.28, p = .028$), indicating that children whose mother reported using positive parenting techniques less often were at higher risk for internalizing behavior problems than were children of mothers who reported using positive parenting techniques more often. Furthermore, poor maternal monitoring and supervision was associated with more child internalizing symptoms ($\beta = .17, p = .041$). However, mothers' level of involvement, consistent use of discipline, and use of corporal punishment were not statistically associated with child internalizing problems.

Discussion

Findings from this study contribute to the scarce literature on child internalizing behaviors in Ukraine. Understanding the extent to which parenting behaviors, maternal depression, and substance use are related to child internalizing outcomes may facilitate prevention and intervention efforts in an attempt to reduce the incidence of child internalizing behaviors and promote affective functioning in this large European country and beyond.

As expected, we found that Ukrainian children reported higher internalizing behavior scores than American children (H1). We also identified several statistical correlates of internalizing behaviors among Ukrainian children. First, we found that child internalizing behaviors were negatively associated with child age (H2), which is consistent with prior research indicating that the prevalence of any anxiety disorder may be slightly higher among children between 6 and 12 years of age than among those between 13 and 18 years of age (Costello et al., 2011). The fact that older children had fewer internalizing symptoms in the present study is consistent with the developmental assumption that older children may have more advanced coping strategies and verbal skills that alleviate depressive symptoms and anxiety (Zahn-Waxler, 1993). Given these findings, professionals working with Ukrainian children could focus their attention on developing social and communication skills in younger children. Receiving such training early in life can prevent multiple adverse outcomes later in life (Webster-Stratton, 2012). Additionally, in the present study, boys had lower scores on internalizing behaviors than girls. This is also consistent with earlier findings that girls have an increased risk for internalizing behaviors (Christie-Mizell et al., 2008), especially depression (Dekker et al., 2007). Together, these results highlight the need to provide interventions for younger children, and especially girls. These findings also underline the need for training Ukrainian mental health clinicians in child psychiatry, as well as the importance of developing relevant local infrastructure to respond to at-risk children.

We also predicted (H3) that higher child scores on internalizing behavior problems would be positively related with maternal age, depression, and alcohol use and negatively related to household income and maternal education level. Our results partially support this hypothesis. The findings that the children of older mothers were at higher risk for internalizing behaviors was consistent with Tearne and colleagues (2016). Older mothers in Ukraine may feel that they have fewer economic, occupational, and educational opportunities than younger mothers and communicate this sentiment to their children. Also, previous research found that Ukrainian women have progressively higher rates of mood disorders with older age (Bromet et al., 2005). Future studies should examine more closely the mechanisms that link maternal age and child internalizing problems.

Surprisingly given the incongruence with previous research in other countries, neither family income nor maternal education was associated with child internalizing problems in our Ukrainian sample. As our results illustrate, the effects of income and education cannot be assumed to be the same across different cultural contexts. For example, high-quality mental health care can be obtained by anyone with access to health care in the United States, whereas in Ukraine high-quality mental health care is often unavailable regardless of one's education and income (Burlaka, Churakova, Aavik, Staller, & Delva, 2014). Furthermore, the quality of higher education is poorer in Ukraine than in the United States, and the relatively low cost allows a large proportion of lower income families to send their children to college. Thus, education may produce fewer returns in the form of social capital in Ukraine than in the United States (Huang, van den Brink, & Groot, 2009), and the close relationship between income and access to quality health care (e.g., Powell, 2016) may not extend to countries such as Ukraine where there is a ceiling on access to high-quality mental health care even at higher incomes due to low availability.

Among all predictors in the regression model, maternal depression had the strongest association with child internalizing problems. This result is consistent with prior research (e.g., Christie-Mizell et al., 2008) and highlights the need to remove barriers to professional mental health care in Ukraine. As previously reported (Burlaka, Churakova, Aavik, & Goldstein, 2014), a number of structural (e.g., high cost of services, lack of trained professionals, issues of confidentiality, unavailable services, inconvenient hours and locations) as well as attitudinal (e.g., lack of acceptance, stigma, lack of trust, not seeing professional services as useful or needed) barriers prevent Ukrainians with mental health problems from seeking professional help.

It was surprising that maternal alcohol drinking did not have a stronger association with child internalizing behaviors. Perhaps the relationship is mediated or moderated by factors unobserved in the present study, such as the quality of maternal caregiving (Curran & Chassin, 1996). Indeed, an argument can be made that consuming alcohol alone does not have a direct impact on children but that low emotional support (Clair & Genest, 1987) and increases in stress (Roosa et al., 1990) associated with having an alcoholic mother may predict internalizing symptoms better than maternal consumption of alcohol alone. In the previous research with Ukrainian children, higher frequency of alcohol use affected the quality of parenting (Burlaka et al., 2017). Furthermore, higher parent involvement with alcohol was also statistically associated with child alcohol disorder, but this association became insignificant once parenting practices were included in the model (Burlaka, 2017). Another plausible explanation for the lack of statistical association between maternal alcohol use and child internalizing behaviors in the present study could be that these mothers who tended to drink less alcohol than has been reported in other Ukrainian samples (e.g., Bakhireva et al., 2011); moderate alcohol use did not emerge as a risk factor for child internalizing behaviors, but it remains plausible that higher levels of alcohol use would have a more distinct association.

Our results concerning the relationship between positive parenting and child internalizing behaviors (H4) were consistent with prior research (see Christie-Mizell et al., 2008). Children whose parents kissed and hugged them and used praise, rewards, and compliments

tended to report less internalizing behavior than did those whose parents were less positive in their parent–child relationship. Similarly, poor maternal monitoring was associated with having a higher risk for internalizing problems. This result is consistent with earlier research linking child depression with lower maternal engagement (Reising et al., 2013). Other parenting dimensions, including involvement, inconsistent discipline, and corporal punishment, were not related to child internalizing problems. These findings suggest that child internalizing problems were primarily associated with limited positive interaction with their mothers.

The present study extends understanding of the interplay between child internalizing problems and cultural factors in a large European country. Consistent with the ecological–transactional model (Cicchetti & Toth, 1998), Ukrainian children’s internalizing psychopathology was related to child, family, and societal factors. Knowledge of child and parent characteristics that correlate with child internalizing problems can help inform effective evidence-based policies and practices for Ukrainian children and families. Specifically, parents can be advised to spend more time with children, demonstrate affection, become involved at their school, and reward positive behaviors. These findings extend the evidence base for the use of positive parenting and effective child supervision and monitoring that in the previous research have been statistically associated with decreased aggression and rule-breaking behaviors among Ukrainian children (Burlaka, 2016).

Within an international context, our findings suggest a need for child mental health specialists and practitioners working with Ukrainian refugees, migrants, or immigrant families to assess mental health and emphasize the importance of developing and exhibiting positive parenting skills for their children’s emotional well-being. This knowledge is particularly useful in light of the recent wave of transient and resettled Ukrainian families stemming from the military conflict in Eastern Ukraine.

The findings presented here should be understood in the context of several limitations. For example, the sample comprised residents in three of 27 Ukrainian regions, and thus we are unable to generalize these findings to all Ukrainian families. Additionally, because these data are cross-sectional, we could not test whether some children had internalizing predispositions before the onset of maternal depression and decreased use of positive parenting. Furthermore, future studies should explore specific mechanisms by which child- and parent-level factors influence child internalizing problems.

In conclusion, these findings contribute to the literature on children’s internalizing problems and risk factors in the child’s ecology, especially in an understudied cultural context. Some results replicated findings that already exist in the literature, and others raise new questions and, in doing so, point to future research directions. In a broader sense, the findings presented here support the global importance of family and social environments (Bronfenbrenner, 1981; Germain & Bloom, 1999; Vygotsky & Cole, 1978) when it comes to the well-being of children.

Acknowledgments

This research was supported in part by grant 1D43TW009310 from the Fogarty International Center, the National Institute of Alcohol Abuse and Alcoholism, and the National Institute on Drug Abuse.

References

- Achenbach, TM., Rescorla, LA. Manual for the ASEBA school-age forms & profiles. Burlington: University of Vermont, Research Center for Children, Youth, and Families; 2001.
- Ackerson, L. Children's behavior problems. Vol. II: Relative importance and interrelations among traits. Oxford, England: University of Chicago Press; 1942.
- Allgood-Merten B, Lewinsohn PM, Hops H. Sex differences and adolescent depression. *Journal of Abnormal Psychology*. 1990; 99(1):55–63. <https://doi.org/10.1037/0021-843X.99.1.55>. [PubMed: 2307767]
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th. Washington, DC: American Psychiatric Association; 2013.
- Bakhireva LN, Wilsnack SC, Kristjanson A, Yevtushok L, Onishenko S, Wertenleki W, Chambers CD. Paternal drinking, intimate relationship quality, and alcohol consumption in pregnant Ukrainian women. *Journal of Studies on Alcohol and Drugs*. 2011; 72:536–544. [PubMed: 21683035]
- Beauchaine, TP., Hinshaw, SP. Child and adolescent psychopathology. Hoboken, NJ: Wiley; 2008.
- Belsky J. The determinants of parenting: A process model. *Child Development*. 1984; 55:83–96. <https://doi.org/10.2307/1129836>. [PubMed: 6705636]
- Bittner A, Egger HL, Erkanli A, Jane Costello E, Foley DL, Angold A. What do childhood anxiety disorders predict? *Journal of Child Psychology and Psychiatry, and Allied Disciplines*. 2007; 48:1174–1183. <https://doi.org/10.1111/j.1469-7610.2007.01812.x>.
- Bøe T, Hysing M, Stormark KM, Lundervold AJ, Sivertsen B. Sleep problems as a mediator of the association between parental education levels, perceived family economy and poor mental health in children. *Journal of Psychosomatic Research*. 2012; 73:430–436. <https://doi.org/10.1016/j.jpsychores.2012.09.008>. [PubMed: 23148810]
- Bøe T, Øverland S, Lundervold AJ, Hysing M. Socioeconomic status and children's mental health: Results from the Bergen Child Study. *Social Psychiatry and Psychiatric Epidemiology*. 2012; 47:1557–1566. <https://doi.org/10.1007/s00127-011-0462-9>. [PubMed: 22183690]
- Bowen, M. Family therapy in clinical practice. New York, NY: Jason Aronson; 2004.
- Bromet EJ, Gluzman SF, Paniotto VI, Webb CPM, Tintle NL, Zakhozha V, Schwartz JE. Epidemiology of psychiatric and alcohol disorders in Ukraine. *Social Psychiatry and Psychiatric Epidemiology*. 2005; 40:681–690. <https://doi.org/10.1007/s00127-005-0927-9>. [PubMed: 16160752]
- Bromet EJ, Havenaar JM, Tintle N, Kostyuchenko S, Kotov R, Gluzman S. Suicide ideation, plans and attempts in Ukraine: Findings from the Ukraine World Mental Health Survey. *Psychological Medicine*. 2007; 37:807–820. <https://doi.org/10.1017/S0033291707009981>. [PubMed: 17288636]
- Bronfenbrenner, U. The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press; 1981.
- Buizer-Voskamp JE, Laan W, Staal WG, Hennekam EAM, Aukes MF, Termorshuizen F, Ophoff RA. Paternal age and psychiatric disorders: Findings from a Dutch population registry. *Schizophrenia Research*. 2011; 129:128–132. <https://doi.org/10.1016/j.schres.2011.03.021>. [PubMed: 21489755]
- Burlaka V. Externalizing behaviors of Ukrainian children: The role of parenting. *Child Abuse & Neglect*. 2016; 54:23–32. <https://doi.org/10.1016/j.chiabu.2015.12.013>. [PubMed: 26907365]
- Burlaka V. Effects of individual, peer, and family factors on child alcohol abuse in Ukraine. *Journal of Child and Family Studies*. 2017; 26:1780–1789. <https://doi.org/10.1007/s10826-017-0718-4>.
- Burlaka V, Bermann EA, Graham-Bermann SA. Internalizing problems in at-risk preschoolers: Associations with child and mother risk factors. *Journal of Child and Family Studies*. 2015; 24:2653–2660. <https://doi.org/10.1007/s10826-014-0067-5>.

- Burlaka V, Churakova I, Aavik OA, Goldstein D. Perceived barriers to mental health services: A mixed-method study with Ukrainian college students. *European Journal of Higher Education*. 2014; 4:167–183. <https://doi.org/10.1080/21568235.2014.890524>.
- Burlaka V, Churakova I, Aavik OA, Staller KM, Delva J. Attitudes toward health-seeking behaviors of college students in Ukraine. *International Journal of Mental Health and Addiction*. 2014; 12:549–560. <https://doi.org/10.1007/s11469-014-9483-4>.
- Burlaka V, Graham-Bermann SA, Delva J. Family factors and parenting in Ukraine. *Child Abuse & Neglect*. 2017; 72:154–162. <https://doi.org/10.1016/j.chiabu.2017.08.007>. [PubMed: 28818732]
- Burlaka V, Grogan-Kaylor A, Savchuk O, Graham-Bermann SA. The relationship between family, parent, and child characteristics and intimate partner violence (IPV) among Ukrainian mothers. *Psychology of Violence*. 2017; 7:469–477. <https://doi.org/10.1037/vio0000085>. [PubMed: 29242754]
- Carneiro P, Meghir C, Parey M. Maternal education, home environments, and the development of children and adolescents. *Journal of the European Economic Association*. 2013; 11:123–160. <https://doi.org/10.1111/%28ISSN%291542-4774/issues>.
- Chassin L, Pitts SC, DeLucia C, Todd M. A longitudinal study of children of alcoholics: Predicting young adult substance use disorders, anxiety, and depression. *Journal of Abnormal Psychology*. 1999; 108:106–119. <https://doi.org/10.1037/0021-843X.108.1.106>. [PubMed: 10066997]
- Christensen HB, Bilenberg N. Behavioural and emotional problems in children of alcoholic mothers and fathers. *European Child & Adolescent Psychiatry*. 2000; 9:219–226. <https://doi.org/10.1007/s007870070046>. [PubMed: 11095045]
- Christie-Mizell CA, Pryor EM, Grossman ER. Child depressive symptoms, spanking, and emotional support: Differences between African American and European American youth. *Family Relations*. 2008; 57:335–350. <http://doi.org/10.1111/j.1741-3729.2008.00504.x>.
- Cicchetti D, Toth SL. The development of depression in children and adolescents. *American Psychologist*. 1998; 53:221–241. <https://doi.org/10.1037/0003-066X.53.2.221>. [PubMed: 9491749]
- Clair D, Genet M. Variables associated with the adjustment of offspring of alcoholic fathers. *Journal of Studies on Alcohol*. 1987; 48:345–355. [PubMed: 3613586]
- Costello, EJ., Egger, HL., Copeland, W., Erkanli, A., Angold, A. The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity. In: Silverman, WK., Field, AP., editors. *Anxiety disorders in children and adolescents: Research, assessment and intervention*. 2nd. Cambridge, MA: Cambridge University Press; 2011. p. 56-75.
- Curran PJ, Chassin L. A longitudinal study of parenting as a protective factor for children of alcoholics. *Journal of Studies on Alcohol*. 1996; 57:305–313. [PubMed: 8709589]
- Dekker MC, Ferdinand RF, van Lang NDJ, Bongers IL, van der Ende J, Verhulst FC. Developmental trajectories of depressive symptoms from early childhood to late adolescence: Gender differences and adult outcome. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*. 2007; 48:657–666. <https://doi.org/10.1111/j.1469-7610.2007.01742.x>.
- Drabick DAG, Beauchaine TP, Gadow KD, Carlson GA, Bromet EJ. Risk factors for conduct problems and depressive symptoms in a cohort of Ukrainian children. *Journal of Clinical Child & Adolescent Psychology*. 2006; 35:244–252. https://doi.org/10.1207/s15374424jccp3502_8. [PubMed: 16597220]
- Epkins CC. Peer ratings of internalizing and externalizing problems in inpatient and elementary school. *Journal of Emotional & Behavioral Disorders*. 1995; 3:203–213. <https://doi.org/10.1177/106342669500300402>.
- Epkins CC, Meyers AW. Assessment of childhood depression, anxiety, and aggression: Convergent and discriminant validity of self-, parent-, teacher-, and peer-report measures. *Journal of Personality Assessment*. 1994; 62:364–381. https://doi.org/10.1207/s15327752jpa6202_16. [PubMed: 8189344]
- Fergusson DM, Woodward LJ. Maternal age and educational and psychosocial outcomes in early adulthood. *Journal of Child Psychology and Psychiatry*. 1999; 40:479–489. <https://doi.org/10.1111/1469-7610.00464>. [PubMed: 10190348]
- Frick PJ. The Alabama Parenting Questionnaire. 1991 Unpublished rating scale.

- Frick PJ, Christian RE, Wootton JM. Age trends in the association between parenting practices and conduct problems. *Behavior Modification*. 1999; 23:106–128. <https://doi.org/10.1177/0145445599231005>.
- Germain, CB., Bloom, M. Human behavior in the social environment: An ecological view. New York, NY: Columbia University Press; 1999.
- Gershoff ET, Grogan-Kaylor A. Spanking and child outcomes: Old controversies and new meta-analyses. *Journal of Family Psychology*. 2016; 30:453–469. <https://doi.org/10.1037/fam0000191>. [PubMed: 27055181]
- Goodman SH, Rouse MH, Connell AM, Broth MR, Hall CM, Heyward D. Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review*. 2011; 14:1–27. <https://doi.org/10.1007/s10567-010-0080-1>. [PubMed: 21052833]
- Hammen C, Rudolph K, Weisz J, Rao U, Burge D. The context of depression in clinic-referred youth: Neglected areas in treatment. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1999; 38:64–71. <https://doi.org/10.1097/00004583-199901000-00021>. [PubMed: 9893418]
- Hammerton G, Mahedy L, Mars B, Harold GT, Thapar A, Zammit S, Collishaw S. Association between maternal depression symptoms across the first eleven years of their child's life and subsequent offspring suicidal ideation. *PLoS ONE*. 2015; 10:e0131885. <https://doi.org/10.1371/journal.pone.0131885>. [PubMed: 26151929]
- Huang J, van den Brink HM, Groot W. A meta-analysis of the effect of education on social capital. *Economics of Education Review*. 2009; 28:454–464. DOI: 10.1016/j.econedurev.2008.03.004
- McGrath JJ, Petersen L, Agerbo E, Mors O, Mortensen PB, Pedersen CB. A comprehensive assessment of parental age and psychiatric disorders. *JAMA Psychiatry*. 2014; 71:301–309. <https://doi.org/10.1001/jamapsychiatry.2013.4081>. [PubMed: 24452535]
- Ministry of Education. Psychological services in the educational system of Ukraine. 1999. Pub. L. No. 127 Retrieved from <http://zakon2.rada.gov.ua/laws/show/z0922-99>
- Plant MA, Orford J, Grant M. The effects on children and adolescents of parents' excessive drinking: An international review. *Public Health Reports*. 1989; 104:433–442. [PubMed: 2508172]
- Powell, A. The costs of inequality: Money = quality health care = longer life. *Harvard Gazette*. 2016. Feb 22. Retrieved from <https://news.harvard.edu/gazette/story/2016/02/money-quality-health-care-longer-life>
- Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*. 1977; 1:385–401. <https://doi.org/10.1177/014662167700100306>.
- Ragozin AS, Basham RB, Crnic KA, Greenberg MT, Robinson NM. Effects of maternal age on parenting role. *Developmental Psychology*. 1982; 18:627–634. <https://doi.org/10.1037/0012-1649.18.4.627>.
- Reising MM, Watson KH, Hardcastle EJ, Merchant MJ, Roberts L, Forehand R, Compas BE. Parental depression and economic disadvantage: The role of parenting in associations with internalizing and externalizing symptoms in children and adolescents. *Journal of Child and Family Studies*. 2013; 22:335–343. <https://doi.org/10.1007/s10826-012-9582-4>.
- Rice F, Harold GT, Thapar A. Assessing the effects of age, sex and shared environment on the genetic aetiology of depression in childhood and adolescence. *Journal of Child Psychology and Psychiatry*. 2002; 43:1039–1051. <https://doi.org/10.1111/1469-7610.00231>. [PubMed: 12455925]
- Roebuck TM, Mattson SN, Riley EP. Behavioral and psychosocial profiles of alcohol-exposed children. *Alcoholism, Clinical and Experimental Research*. 1999; 23:1070–1076. <https://doi.org/10.1007/s10826-012-9582-4>.
- Roosa MW, Beals J, Sandler IN, Pillow DR. The role of risk and protective factors in predicting symptomatology in adolescent self-identified children of alcoholic parents. *American Journal of Community Psychology*. 1990; 18:725–741. <https://doi.org/10.1007/BF00931239>. [PubMed: 2075899]
- Røttingen JA, Regmi S, Eide M, Young AJ, Viergever RF, Årdal C, Terry RF. Mapping of available health research and development data: What's there, what's missing, and what role is there for a

global observatory? The Lancet. 2013; 382:1286–1307. [https://doi.org/10.1016/S0140-6736\(13\)61046-6](https://doi.org/10.1016/S0140-6736(13)61046-6).

- Rouhier-Willoughby, J. Village values: Negotiating identity, gender, and resistance in urban Russian life-cycle rituals. Bloomington, IN: Slavica; 2008.
- Seilhamer, RA., Jacob, T. Family factors and adjustment of children of alcoholics. In: Windle, M., Searles, JS., editors. Children of alcoholics: Critical perspectives. New York, NY: Guilford Press; 1990. p. 168-186.
- Sher KJ. Psychological characteristics of children of alcoholics. Alcohol Health and Research World. 1997; 21:247–254. [PubMed: 15706777]
- Slopen N, Fitzmaurice G, Williams DR, Gilman SE. Poverty, Food Insecurity, and the Behavior for Childhood Internalizing and Externalizing Disorders. Journal of the American Academy of Child & Adolescent Psychiatry. 2010; 49:444–452. <https://doi.org/10.1016/j.jaac.2010.01.018>. [PubMed: 20431464]
- SNAPE. Academic curricula. 2017. Oct 7. Retrieved from <https://nmapo.edu.ua/index.php/en/academic-curricula>
- StataCorp. Stata statistical software: Release Stata/MP 14.1. College Station TX: StataCorp; 2015.
- Stepurko T, Pavlova M, Gryga I, Murauskiene L, Groot W. Informal payments for health care services: The case of Lithuania, Poland and Ukraine. Journal of Eurasian Studies. 2015; 6:46–58. <https://doi.org/10.1016/j.euras.2014.11.002>.
- Tearne JE, Robinson M, Jacoby P, Allen KL, Cunningham NK, Li J, McLean NJ. Older maternal age is associated with depression, anxiety, and stress symptoms in young adult female offspring. Journal of Abnormal Psychology. 2016; 125:1–10. <https://doi.org/10.1037/abn0000119>. [PubMed: 26569038]
- Tearne JE, Robinson M, Jacoby P, Li J, Newnham J, McLean N. Does late childbearing increase the risk for behavioural problems in children? A longitudinal cohort study: Parental age and offspring behaviour. Paediatric and Perinatal Epidemiology. 2015; 29:41–49. <https://doi.org/10.1111/ppe.12165>. [PubMed: 25487742]
- UkrStat. Structure of household resources. Kyiv, Ukraine: State Statistics Service of Ukraine; 2013. Retrieved from <http://www.ukrstat.gov.ua/>
- UkrStat. Population of Ukraine. Kyiv, Ukraine: State Statistics Service of Ukraine; 2015. Retrieved from http://database.ukrcensus.gov.ua/PXWEB2007/ukr/news/op_popul.asp
- UkrStat. Dynamics of monthly salaries in regions from 1995 to 2016. Kyiv, Ukraine: State Statistics Service of Ukraine; 2017. Retrieved October 7, 2017, from http://www.ukrstat.gov.ua/operativ/operativ2006/gdn/prc_rik/prc_rik_u/dszpR_u.html
- Verkhovna Rada. The law of Ukraine on psychiatric assistance. 2003. Pub. L. No. 1364-IV Retrieved from <http://zakon2.rada.gov.ua/laws/show/1489-14>
- von Rueden U, Gosch A, Rajmil L, Bisegger C, Ravens-Sieberer U. Socioeconomic determinants of health related quality of life in childhood and adolescence: Results from a European study. Journal of Epidemiology and Community Health. 2006; 60:130–135. <https://doi.org/10.1136/jech.2005.039792>. [PubMed: 16415261]
- Vygotsky, LS., Cole, M. Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press; 1978.
- Wadsworth ME, Santiago CD. Risk and resiliency processes in ethnically diverse families in poverty. Journal of Family Psychology. 2008; 22:399–410. <https://doi.org/10.1037/0893-3200.22.3.399>. [PubMed: 18540768]
- Webb CP, Bromet EJ, Gluzman S, Tintle NL, Schwartz JE, Kostyuchenko S, Havenaar JM. Epidemiology of heavy alcohol use in Ukraine: Findings from the world mental health survey. Alcohol and Alcoholism. 2005; 40:327–335. <https://doi.org/10.1093/alcalc/agh152>. [PubMed: 15824065]
- Webster-Stratton, C. Collaborating with parents to reduce children's behavior problems: A book for therapists using the Incredible Years programs. Seattle, WA: Incredible Years; 2012.
- Weissman MM, Pilowsky DJ, Wickramaratne PJ, Talati A, Wisniewski SR, Fava M, for the STAR*D-Child Team. Remissions in maternal depression and child psychopathology. JAMA: The Journal of

the American Medical Association. 2006; 295:1389–1398. <https://doi.org/10.1001/jama.295.12.1389>. [PubMed: 16551710]

Werner EE. Resilient offspring of alcoholics: A longitudinal study from birth to age 18. *Journal of Studies on Alcohol*. 1986; 47:34–40. <https://doi.org/10.15288/jsa.1986.47.34>. [PubMed: 3959559]

World Health Organization. Global status report on alcohol and health—2014 ed. Geneva, Switzerland: World Health Organization; 2014. Retrieved from http://www.who.int/substance_abuse/publications/global_alcohol_report/en

Yap MBH, Jorm AF. Parental factors associated with childhood anxiety, depression, and internalizing problems: A systematic review and meta-analysis. *Journal of Affective Disorders*. 2015; 175:424–440. <https://doi.org/10.1016/j.jad.2015.01.050>. [PubMed: 25679197]

Zahn-Waxler C. Warriors and worriers: Gender and psychopathology. *Development and Psychopathology*. 1993; 5:79–89. <https://doi.org/10.1017/S0954579400004272>.

Zucker, RA., Fitzgerald, HE., Noll, RB. Drinking and drug history. Department of Psychology, Michigan State University; East Lansing: 1990. Unpublished questionnaire

Table 1
Means, Standard Deviations, Ranges, and Intercorrelations Among Study Variables (N = 251)

	M	SD	Range	1	2	3	4	5	6	7	8	9	10	11	12
1. Child internalizing	13.04	8.62	0–43	–											
2. Child age	12.44	2.23	9–16	–.06	–										
3. Child gender	0.53	–	0–1	–.11	–.01	–									
4. Household income	414.36	266.54	12–2217	–.12	–.11	–.08	–								
5. Mother age	37.01	5.48	24–55	.10	.38***	.03	–.11	–							
6. Maternal education	13.28	2.05	9–16	–.12*	–.06	–.12	.42***	.03	–						
7. Maternal depression	17.59	7.19	0–48	.26***	.06	.00	–.13*	.01	–.14*	–					
8. Maternal alcohol use	162.80	253.18	0–2125	.06	–.06	.03	–.05	–.12*	–.11	.05	–				
9. Involvement	2.55	0.83	0–4	–.08	–.16**	–.13*	.18**	.08	.24***	–.02	–.54***	–			
10. Positive parenting	2.96	0.84	0–4	–.11	–.16**	–.05	.10	.07	.18**	.07	–.52***	.86***	–		
11. Poor monitoring	1.56	0.69	0–3	.18**	.27***	.12*	–.25***	.08	–.32***	.17**	.34***	–.57***	–.53***	–	
12. Inconsistent discipline	1.85	0.81	0–4	.08	.00	.02	–.03	.14*	–.13*	.26***	–.11	.19**	.21**	.06	–
13. Corporal punishment	1.04	0.94	0–4	.15*	.05	.02	–.19**	–.18**	–.23***	.12*	.37***	–.61***	–.64***	.55***	–.05

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Regression Analysis for Child Characteristics, Family Characteristics, and Parenting Predicting Child Internalizing Problems

Table 2

Predictor	B	95% CI	β	t	p
Child characteristics					
Age	−0.79	[−1.32, −0.25]	−.20	−2.91	.004
Gender, male	−2.14	[−4.23, −0.05]	−.12	−2.02	.045
Family characteristics					
Household income	−0.00	[−0.06, 0.00]	−.06	−0.87	.383
Mother age	0.24	[0.03, 0.45]	.15	2.26	.025
Mother education	−0.20	[−0.78, 0.37]	−.05	−0.70	.483
Mother depression	0.36	[0.20, 0.51]	.30	4.60	<.001
Mother alcohol use	−0.12	[−0.37, 0.12]	−.07	−0.98	.326
Parenting					
Involvement	1.73	[−0.85, 4.32]	.16	1.32	.188
Positive parenting	−2.99	[−5.65, −0.33]	−.28	−2.22	.028
Poor monitoring	2.13	[0.08, 4.17]	.17	2.05	.041
Inconsistent discipline	−0.24	[−1.58, 1.10]	−.02	−0.35	.728
Corporal punishment	−0.26	[−1.83, 1.32]	−.03	−0.32	.750

Note. $R^2 = .17$ ($N = 251$, $p < .001$). CI = confidence interval of B .