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Predictors of parental use of corporal punishment in Ukraine[☆]





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ABSTRACT

Despite a great deal of evidence that corporal punishment is harmful, corporal punishment is still very prevalent worldwide. We examine predictors of different types of corporal punishment among Ukrainian mothers in 12 communities across Ukraine. Findings suggest that maternal spirituality, maternal coping styles, family communication, and some demographic characteristics are predictive of mothers' use of corporal punishment.

1. Introduction

Empirical research on child development has provided ample evidence pointing to the undesirable outcomes when physical punishment is used to discipline children (Gershoff & Grogan-Kaylor, 2016; Grogan-Kaylor, Ma, & Graham-Bermann, 2017). The use of physical punishment has been linked to child abuse as well as problematic child outcomes, such as higher rates of aggressive behavior and substance use, both in the U.S. (Gershoff & Grogan-Kaylor, 2016) and internationally (Burlaka, 2016, 2017; Gershoff et al., 2010; Lansford et al., 2005; Ma, Grogan-Kaylor, & Delva, 2016). Despite its evident risks, parental use of physical punishment is prevalent in many countries around the globe (Lansford et al., 2010).

Most research examining the predictors of parental physical punishment has been conducted in high-income countries (Gershoff & Grogan-Kaylor, 2016). Low- and middle- income countries (LMIC's) such as Ukraine carry a much higher burden of psychosocial problems due to a lack of research capacity and resources to understand their nature and find appropriate solutions (Røttingen et al., 2013). One study examining the use of physical punishment in low, middle and high income countries found that parents' use of physical punishment and positive discipline strategies varied significantly by geographic region (Lansford & Deater-Deckard, 2012). Further, a six-country study of parenting behaviors and children's behavioral outcomes suggested that there were country level differences in parental use of different forms of discipline (Gershoff et al., 2010). Relatedly, a recent study of family violence in Chile (Ma et al., 2016) suggested that there might be

community-level differences in parenting processes and child outcomes within the single metropolitan area of Santiago, Chile. However, such explorations of community level differences in parenting behaviors remain somewhat infrequent, are more often conducted in higher income countries, and have not been conducted in Ukraine.

It is particularly important to understand child-rearing practices in middle-income countries such as the Ukraine, a country that has experienced political turmoil and violence and has some of the highest levels of alcohol use and mental health problems (Bromet et al., 2005: World Health Organization, 2014). As a post-communist country, Ukraine places cultural emphasis on collective values and the use of violent acts in the family is considered a private issue (UNDP, 2010). Reflecting these sociocultural values in Ukraine, recent estimates show that the majority of Ukrainian children have experienced physical punishment (Burlaka, 2016; United Nations Children's Fund, 2014), despite recent legal movements in the Ukraine that prohibits physical punishment in the home (End All Corporal Punishment of Children, 2017). Although a growing literature links parental physical punishment with detrimental outcomes including externalizing problems (Burlaka, 2016), internalizing problems (Burlaka, Kim, Crutchfield, Lefmann, & Kay, 2017), and substance use of Ukrainian children (Burlaka, 2017), no studies to date have examined factors that contribute to the use of parental physical punishment among Ukrainian parents. To fill this gap, the present study aims to explore the way in which Ukrainian cultural patterns of coping with stressful life situations, spirituality and family communication relate to the use of physical punishment.

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1.1. Belsky's developmental ecological model

Belsky's process model of the determinants of parenting highlights both parent and child attributes as well as the family context in which the parent-child interactions occur as the driving forces of childrearing strategies (Belsky, 1984). Belsky's model emphasizes the way in which parental psychological functioning (e.g., personality characteristics, parenting stress), family context (e.g., parental marital status) and other family conditions (e.g., employment) affect parenting ability.

Consistent with Belsky's model, several previous studies in Ukraine have illustrated the way in which parent-child interactions are embedded within and affected by numerous factors, perhaps most notably family context and social conditions and have shed light on child outcomes that may result from such intra-familial processes. Specifically, recent studies have revealed that among Ukrainian parents parenting techniques were significantly related to child psychopathology such that poor parental monitoring and lower use of positive parenting predicted both internalizing (child anxiety, depression, withdrawal, and somatic symptoms) and externalizing (aggressive and rule-breaking) behaviors and early alcohol abuse symptoms among Ukrainian children (Burlaka, 2016; Burlaka, 2017; Burlaka, Kim, et al., 2017). Similarly, parents' reliance on physical punishment as a disciplinary practice has been associated with increased aggressive and rule-breaking behaviors in Ukrainian children (Burlaka, 2016).

From this perspective, it is important to continue to explore other risk factors related to parental psychosocial functioning and their relation to parents' use of negative parenting, such as physical punishment. Parents with less optimal responses to stressors are more likely to appraise their child's behavior negatively (Ordway, 2011). The heightened frustration with their child's misbehavior and lack of control of stressful parent-child interactions appear to inhibit mother's parenting ability (Levy-Shiff, Dimitrovsky, Shulman, & Har-Even, 1998) and precipitate harsh and assertive parenting such as the increased use of physical punishment (MacKenzie, Nicklas, Brooks-Gunn, & Waldfogel, 2011). Prior research found that lower spirituality and certain coping strategies such as escape-avoidance and lower use of positive reappraisal were related to higher reported frequency of alcohol use among Ukrainian parents (Churakova, Burlaka, & Parker, 2017). The cascading effects of parental coping and spirituality need to be understood in view of Ukraine being among world nations with highest rates of alcohol use (WHO, 2014) and its severe consequences including IPV, negative parenting (Burlaka, Graham-Bermann, & Delva, 2017), and child alcoholism (Burlaka, 2017).

1.2. Religiosity and parents' use of physical punishment

Furthermore, there is a need to directly test the association between parental coping and spirituality, and the use of physical punishment. Spirituality or religiosity is another component of Belsky's developmental ecological model. Research shows that spirituality is associated with lower distress, greater sense of happiness and excitement with life, satisfaction with self and feeling optimistic about the future (Ellison & Fan, 2008). Parents who experience less family adversity tend to be better at parenting (Burlaka, Graham-Bermann, et al., 2017). However, some parents from stricter religious beliefs feel their parenting behavior is sanctified by God's will. In a sample of 134 mothers from rural and midsize suburban communities in the U.S. Midwest, Murray-Swank, Mahoney, and Pargament (2006) found that mothers with higher scores on Biblically conservatism and sanctification of parenting were linked with greater use of physical punishment. However, it is not clear how these results generalize to parents who live in other sociocultural contexts and enjoy a meaningful spiritual life that is not necessarily guided by the Bible and church attendance.

Religious diversity is prominent in Ukraine with 70.4% of Ukrainians being believers (Razumkov Center, 2016). Although the majority Ukrainians are Protestant, Catholic, and Orthodox Christians,

there are a total of 98 religious affiliations, including 248 Jewish, 238 Muslim, 59 Buddhist, and multiple other religious communities organized in 35,919 churches, synagogues, schools, monasteries, mass media and other organizations (Ministry of Culture of Ukraine, 2017). Many Ukrainians are guided by spirituality, a sense of belonging and intimacy to the transcendent in daily life, which is much more than simply attending church services and following particular religious doctrines. In fact, 63% of Ukrainians believe that people can lead a spiritual life without necessarily belonging to a particular religious institution (Razumkov Center, 2016). Individuals who report ordinary spiritual experiences and a connection to spiritual guidance in daily life have shown lower anxiety, fear (Koszycki, Raab, Aldosary, & Bradwein, 2010), alcohol use (Churakova et al., 2017) and stress (Newmeyer et al., 2014), which may enhance a sense of wellbeing and decrease parental propensity to hit children (Lee, Perron, Taylor, & Guterman, 2011). However, the direct association between spirituality and parental use of physical punishment has not yet been tested in Ukraine.

1.3. Family relationship quality and parenting behaviors

Research has shown that high levels of family communication contribute to supportive family interactions and emotional connectedness among family members (Olson, 2011). Furthermore, families with more open, caring, and engaging communication are less likely to use physical punishment (Leary, Kelley, Morrow, & Mikulka, 2008; Smith & Mosby; 2003). A lack of family communication may be associated with a family environment in which sharing of feelings and ideas are discouraged (Olson & Barnes, 2004).

However, while some research has sought to understand how family communication relates to parents' choice of disciplinary strategies, less attention has been devoted to examining cognitive processes that may aid in understanding the way in which family stress becomes realized in parent disciplinary practices. Ways of coping (Lazarus, 1966) have been theorized as a construct that may help to illuminate parental responses to stressors. Broadly speaking, individuals in stressful situations—such as relationships characterized by IPV—may cope in one of two primary ways. "Emotion-focused coping" represents coping strategies that are focused upon the management of one's own emotions, and generally the attempt to ameliorate, or reduce, one's negative emotions around a particular stressor (Folkman & Lazarus, 1980). In contrast, "problemfocused coping" is an attempt to develop concrete practical steps in order to deal with a particular stressor (Folkman & Lazarus, 1980). Studies of the mental health of individuals confronting stressful situations have generally found that mental health is better among those who employ problem-focused coping rather than emotion focused coping (e.g., Bjørkløf, Engedal, Selbæk, Kouwenhoven, & Helvik, 2013).

1.4. The current study

The current study examines predictors of parental use of physical punishment among a sample of Ukrainian families. In view of extant literature, we hypothesized that higher levels of problem-focused coping, spirituality, and family communication would predict less use of parental physical punishment, while emotion-focused coping skills would increase parental use of physical punishment.

Adolescence is a critical age period related to hormonal changes and intensive brain development (Ashford & LeCroy, 2013; Steinberg, 2005). Exposure to physical abuse and other forms of maltreatment may increase child's vulnerability to mental health problems and lead to changes in executive functions (Beauchaine & Hinshaw, 2008) and subsequent chronic conditions such as substance abuse disorder (Cohen, 2012; Tarter, Kirisci, Habeych, Reynolds, & Vanyukov, 2004). Given the significance of this developmental period, it is critical to understand the correlates of physical discipline in families with children of preadolescent and adolescent age.

Although adolescent age has been linked with more pronounced

behavioral problems (Beauchaine & Hinshaw, 2008), the child's geographic environment can be another factor contributing to the variation in mental health vulnerabilities. For example, living in Southeast region (as opposed to North-Central and West regions) was found to be among the most significant factors associated with heavy alcohol use in Ukraine (Webb et al., 2005).

In view of this literature, we recruited mothers of children aged 9 to 16 who lived in Southern, Central and Eastern Ukraine.

2. Method

2.1. Study participants

The sample included 294, predominantly Ukrainian (94%; others were of Russian, Roma, Polish, and Armenian ethnicity), biological mothers from 12 different communities across Ukraine. The mean age of the mothers was $37.12\,\mathrm{years}$ (SD=5.67) and 70% were employed. Forty-nine percent of the children in this study were male. The average monthly family income was US \$408.00 (SD=261.67), lower than the national average monthly family income in Ukraine (\$498; UkrStat, 2013). Twenty-six percent of mothers had a university degree, 5% had completed a few years of college, 49% had a vocational degree, 10% had graduated from high school and 10% had completed middle school. Four percent of mothers were married but did not live with their partner, 71% of the respondents were married or lived with a partner, 5% were widowed, 3% were single, and 17% were divorced.

2.2. Measures

2.2.1. Demographic characteristics

Mothers reported their age (measured in years), marital status $(0 = not \ married, \ 1 = married/in \ relationship)$, education (measured in total number of years spent in educational establishments), and family income in the past month (measured in US \$ per month). Mothers also answered questions about their children's sex $(0 = girl, \ 1 = boy)$ and age (measured in years).

2.2.2. Physical punishment

Mothers answered three questions from the Alabama Parenting Questionnaire (Frick, 1991; Frick, Christian, & Wootton, 1999) pertaining to their use of physical punishment ($\alpha=0.86$). On a 5-point endorsement scale (0=never, $1=almost\ never$, 2=sometimes, 3=often, and 4=always), mothers reported the frequency with which they spanked ("You spank your child with your hand when he/she has done something wrong"), slapped ("You slap your child with a belt, switch, or other object when he/she has done something wrong") their children. The APQ is a widely used measure of parenting (Dadds, Maujean, & Fraser, 2003; Hawes & Dadds, 2006) that showed good to excellent reliability in previous research with Ukrainian children (author reference 1). To differentiate the associations of parenting with mild and severe physical punishment (i.e., spanking, slapping, and hitting), we used each individual scale item as separate outcome variables.

2.2.3. Mothers' spirituality

Mothers' spirituality was measured with 16 items of the Daily Spiritual Experience Scale (DSES; Underwood & Teresi, 2002). Mothers reported the frequency of ordinary spiritual experiences in daily life. Example questions include "I feel God's love for me, directly," and "I find strength in my religion or spirituality." Participants' answers ranged on a 6-point Likert scale from 1 (many times a day) to 6 (never). The answers then were reverse-scored and summed to produce a spirituality scale. The DSES is a psychometrically sound measure that has been extensively used globally (Underwood, 2011) and in Ukraine (author reference 2). In the present study, Cronbach's alpha was 0.97.

2.2.4. Family communication

Mothers reported on the quality of family communication using 10-items of the Family Communication Scale (FACES-IV; Olson, 2011). The answers to the questions (e.g., "Family members are very good listeners," "Family members can calmly discuss problems with each other," "Family members try to understand each other's feelings") ranged on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The reliability alpha of the FACES-IV Family Communication Scale in this study was 0.96.

2.2.5. Ways of coping

Mothers' strategies of coping with life stress were measured using the Ways of Coping Checklist (WOC; Folkman & Lazarus, 1985). The WOC includes 66 questions assessing mothers' ways of responding to the stressful life events on a 4-point Likert scale (0 = does not apply or not used; 3 = used a great deal). Consistent with Folkman and Lazarus (1980), the items were classified into two scales: Problem-Focused Coping Scale representing mothers' efforts aimed to resolve the source of the problem by utilizing cognitive problem-solving or behavioral strategies (e.g., "Made a plan of action and followed it," "Stood your ground and fought for what you wanted"), and Emotion-Focused Coping Scale representing mother efforts to mitigate or control emotional distress (e.g., "Accepted sympathy and understanding from someone," "Tried to forget the whole thing"). In the present study, the Cronbach alpha was 0.88 for the Problem-Focused Coping Scale and 0.81 for the Emotion-Focused Coping Scale.

2.3. Study procedures

Participants for the current study were recruited as part of a larger study examining multiple domains such as intimate partner violence, alcohol use, parenting, and mental health among Ukrainian families in 2013. The Ukrainian Methodological Psycho-Medico-Pedagogical Center issued approval for study. Data collection were conducted by trained psychologists who approached parents in the schools, distributed the flyers containing information about the study and personally invited families to participate. Parents were informed that they and their children would be asked questions about multiple areas of functioning including mental health, conflict tactics, spirituality and others. Families from Odessa, Vinnytsia and Dnipropetrovsk regions were eligible to participate if they had children aged 9 through 16. A small amount of compensation (US \$12.50) was offered as a token of appreciation for the time spent answering the study questions. Parents signed informed consent for themselves and their children. Children signed the informed assent forms. Participants were interviewed oneon-one on safe school premises and in the homes. Because the principal investigator obtained data from the Ukrainian side without participants' personal identifiers, the University of [blinded for peer-review] institutional review board issued a notice of determination of "nonregulated status" for this study. Only parent data were used in the present analyses.

All measures were translated from English into Ukrainian by a professional translator and then back translated into English to confirm the accuracy of translation (Brislin, 1970). Next, feedback on the questionnaire was sought from a small group of respondents. The final versions of the questionnaires incorporated respondents' comments on the measures as well as the feedback from a group of Ukrainian professional social workers, psychologists, and school teachers.

2.4. Analytic plan

Analyses were conducted with Stata 14 (StataCorp, 2015). First, we conducted descriptive statistics on the measures of interest. Then, a separate multilevel model was employed for each of the three different types of physical punishment examined in this study. Model one examined parental use of spanking, model two examined parental use of

slapping, and model three examined parental use of hitting child with an object. Multilevel models were used to account for the nested nature of the data by community. Failure to account for the nested or clustered nature of the data could lead to mis-estimation of standard errors, and to the conclusion that certain regression parameters were statistically significant, when in fact this was not appropriate (Raudenbush & Bryk, 2002).

As a first step of the multilevel model analysis we ran unconditional models in which there were no independent variables. Variance components from these unconditional models were used to calculate unconditional intraclass correlation coefficients (ICC), a measure of the degree of variation in the outcome that could be explained by the clustering of respondents in different locations. We then ran full multilevel models with all the independent variables of interest.

In this study, there were 12 communities. There have been some concerns in the literature about the use of multilevel models when there are a relatively small number of level 2 units, in this case communities. Therefore, as a robustness check, we followed a procedure adopted by Gershoff et al. (2010) and ran fixed effects regression models in which city of residence was treated as a fixed effect. Results from the multilevel models and the fixed effects models were substantively very close, therefore, we report the results of the multilevel models in this manuscript.

3. Results

3.1. Descriptive statistics

Descriptive statistics for the study sample are in Table 1. Fig. 1 displays the variation in maternal use of different disciplinary strategies. Thirty percent of study participants reported that they never used spanking, and another 22% reported that they "almost never" used spanking. 48% of the respondents in the study reported that they "sometimes" "often" or "always" used spanking. Slapping of children was slightly less common, with 65% of mothers reporting that they "almost never" or "never" used slapping. Hitting of children with an object was less common than either spanking or slapping, but 44% of respondents reported at least some hitting of children with an object.

3.2. Multilevel models

As noted above, our first step was to calculate unconditional intraclass correlation coefficients for each of the outcomes of interest. Unconditional ICC's indicated that 12% of mother's use of spanking, 20% of mother's use of slapping and 23% of their use of hitting children with an object could be attributed to the clustering of study participants in different regions.

Results of the multilevel models are contained in Tables 2. A

Table 1Descriptive statistics.

Variable	Mean	Standard deviation	
Age of child	12.49	2.26	
Age of mother	37.12	5.67	
Years of education	13.23	2.13	
Mother spirituality	50.32	19.99	
Income (\$US)	\$ 408.01	\$ 261.67	
Family communication	35.29	10.27	
Problem focused coping	1.19	0.40	
Emotion focused coping	1.18	0.40	
Child gender	Percent		
Female	51%		
Male	49%		
Partner status			
No partner	29%		
Partner or married	71%		

number of variables predicted mothers' use of spanking. Child demographic characteristics (child age, child sex) were not associated with use of spanking. Neither was income associated with the use of spanking. Older mothers were less likely to spank their children, while marital status did not affect use of spanking. Mothers with higher levels of education were less likely to spank their children. Higher levels of mothers' spirituality reported lower levels of spanking. Higher levels of family communication and problem-focused coping were both associated with reductions in spanking. In contrast, higher levels of emotion focused coping were associated with higher levels of spanking.

Somewhat similar factors were associated with the use of slapping. However, no demographic characteristics predicted use of slapping. Child sex, child age, income, parent age and parent's marital status were all not related to the use of slapping. However, more spirituality was associated with less use of slapping. Increased family communication and problem-focused coping were associated with reductions in slapping while use of emotion focused coping was associated with increases in slapping.

Similar variables also predicted the use of hitting children with an object. Again, child sex and child age were not associated with use of an object to hit children. Income again was not related to hitting children with an object as a disciplinary strategy. Older parents were less likely to use an object to hit their children, while mothers' marital status was not related to hitting children with an object. More highly educated mothers were less likely to use an object to hit children. Parental spirituality was not associated with hitting with an object. Family communication and problem-focused coping were related to reductions in use of an object while use of emotion focused coping was associated with increases in the use of an object to hit children.

4. Discussion

This study confirmed that physical punishment is a widely acceptable parenting practice in Ukraine. The parent-to-child aggression reported by respondents in this study was generally higher than indicated by data from Ukrainian parents who participated in the UNICEF Multiindicator Cluster Survey (MICS), which used a similar measure of parent-to-child aggression and in 2012 found that about 32% of parents responded yes to at least one of the items asking about spanking, slapping, or hitting a child with an object (Lansford et al., 2017). This data in this study were collected in the summer the start of the civil unrests in across Ukraine and ensuing military operations in Eastern Ukraine. Perhaps the increased rates of physical punishment can be explained by the general tensions in the society at time of data collection that trickled down to increase the parent-to-child aggression. Prior research has shown that more frequent use of physical punishment is correlated with higher rates of warfare, adult violence, and interpersonal violence (Lansford & Dodge, 2008). Another possible explanation is that physical punishment is more normative in the Ukranian context overall. Research shows that normative beliefs supporting the use of physical punishment are associated with overall higher rates of maternal use of physical punishment (Gershoff et al.,

4.1. Family relationship quality and maternal physical punishment

Consistent with Belsky (1984), results indicated that family process factors were associated with mothers' use of physical punishment. Notably, higher levels of family communication and problem-focused coping were associated with lower levels of most types of physical punishment, while higher levels of emotion focused coping were associated with higher usage of physical punishment. Families with better communication skills and higher levels of expressed affection may exhibit better coping strategies and non-aggressive responses to child misbehavior (Carvalho, Fernandes, & Relva, 2018). Family members in such families are also more likely to ask about the needs and ideas of

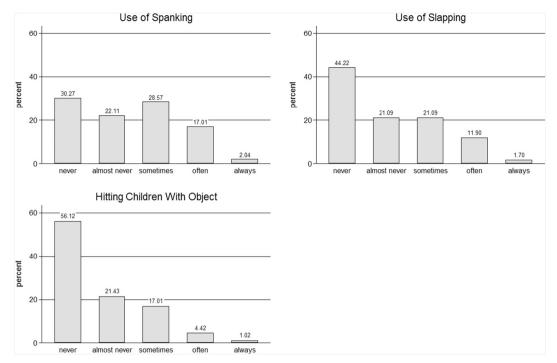


Fig. 1. Frequency of physical punishment.

others in the family and discuss issues in a calm manner. These communication tactics might reduce and ultimately prevent the need to use of physical punishment.

With regards to the positive association between the use of emotion-focused coping and physical punishment, our analyses suggested that Ukrainian mothers who distance themselves from the pressing issues that are confronting them and avoid taking steps to solve problems eventually (for example, when problems escalate) are more likely to use physical punishment of children. This finding is consistent with previous research linking escape-avoidance with increased parental alcohol use (Churakova et al., 2017) and higher alcohol use with less effective parenting (Burlaka, Graham-Bermann, et al., 2017) in Ukraine. This finding suggests the importance of promoting problem-focused coping skills in parent education programs and resources such as parenting literature.

4.2. Religiosity and maternal use of physical punishment

Consistent with prior literature, we found empirical support for the idea that spirituality of parent predicts more positive parenting behavior (Letiecq, 2007). Parents with a stronger sense of spirituality tend to have a stronger sense of meaning in life and emphasize interpersonal relationships (Newlin, Knaft, & Melkus, 2002). These values may offset the effects that parenting stress and adverse life events have on the use of more punitive parenting practice such as physical punishment. Higher levels of spirituality were associated with reductions in spanking and slapping, but not hitting with an object, which may be due to reduced statistical power in the regression predicting hitting with an object, a result of the fact that hitting with an object is a less common behavior than spanking or slapping.

4.3. Regional differences in maternal use of physical punishment

This study was strengthened by the use of multi-level modeling to account for the fact that respondents were clustered in different communities across the country. As noted above, failure to account for the clustered nature of the data could lead to potentially spurious detections of statistical significance (Woolley & Grogan-Kaylor, 2006).

Results of our multi-level models suggest that a substantial amount of variation in parenting behavior is explainable by regional differences. It seems plausible that both local economic conditions and local norms around parenting might explain variation in use of discipline strategies and suggest the need for multilevel intervention that aims to shift norms around physical punishment both at the family and community levels.

Consistent with prior research (Ryan, Kalil, Ziol-Guest, & Padilla, 2016), higher levels of maternal education were associated with less use of physical punishment. Similarly, greater age of the mother was generally associated with lower use of physical punishment, a finding consistent with research conducted using large data sets in the United States (Ma & Grogan-Kaylor, 2017). This association may reflect the fact that age has afforded some mothers the opportunity to develop better communication and coping skills. In terms of social norms around discipline, their 6 country study of parental discipline, Gershoff et al. (2010) found substantial variation in the use of different forms of discipline, although notably, outcomes of different types of discipline were similar across the countries studied. Future research on parenting in Ukraine would benefit from data on local norms around parenting behaviors.

4.4. Implications for practice and policy

The United Nations Secretary-General's Study on Violence Against Children has documented the pervasiveness of violence against children around the globe such that more than 133 million children experience violence in the homes in a given year (Pinheiro, 2006). Reflecting the detrimental consequences of violence to child development, major human rights treaties and organizations including the United Nations consider physical punishment as a violation of children's human rights and strongly support the worldwide movement to legally protect children from any kind of violent acts including exposure to physical punishment in the homes (United Nations Committee on the Rights of the Child, 2006). In accordance with the United Nation's Convention on the Rights of the Child (UNCRC), Ukraine joined the growing number of countries that have enacted complete legal bans of all physical punishment, including the use of physical punishment by parents in 2003

Table 2 Multilevel models.

Measures	Model: Spank $n = 294$				
	Estimate	se	t	p	
Child sex	-0.139	0.107	-1.308	0.19	
Child age	0.007	0.025	0.289	0.77	
Parent age	-0.020	0.010	-1.967	*	
Marital status	-0.067	0.120	-0.560	0.57	
Parent Education	-0.060	0.028	-2.101	*	
Spirituality	-0.008	0.003	-2.735	**	
Income	-0.000	0.000	-1.274	0.16	
Family Communication	-0.042	0.006	-6.713	***	
Problem focused	-0.615	0.224	-2.744	**	
Emotion Focused	0.813	0.219	3.712	***	
Measures	Model: Slap $n = 294$				
	Estimate	se	t	p	
Child sex	-0.081	0.104	-0.786	0.43	
Child age	0.039	0.025	1.593	0.11	
Parent age	-0.018	0.010	-1.840	0.06	
Marital status	-0.110	0.110	-0.967	0.33	
Parent	-0.050	0.027	-1.854	0.06	
Education					
Spirituality	-0.010	0.003	-3.214	**	
Income	-0.000	0.000	-0.239	0.81	
Family communication	-0.044	0.006	-7.449	***	
Problem focused	-0.565	0.216	-2.617	**	
EMOTION focused	0.603	0.210	2.870	**	
Measures	Model: Hit with object n = 294				
	Estimate	se	t	p	
Child sex	0.141	0.091	1.559	0.11	
Child age	0.029	0.022	1.337	0.18	
Parent age	-0.018	0.009	-2.007	*	
Marital status	0.033	0.100	0.327	0.74	

	n = 294				
	Estimate	se	t	p	
Child sex	0.141	0.091	1.559	0.119	
Child age	0.029	0.022	1.337	0.181	
Parent age	-0.018	0.009	-2.007	*	
Marital status	0.033	0.100	0.327	0.744	
Parent	-0.092	0.024	-3.880	***	
Education					
Spirituality	-0.002	0.003	-0.783	0.434	
Income	-0.000	0.000	-1.492	0.136	
Family communication	-0.033	0.005	-6.437	***	
Problem focused	-0.439	0.189	-2.326	*	
Emotion focused	0.580	0.184	3.161	**	

^{*} p < 0.05.

(Lansford & Deater-Deckard, 2012).

Since the ban on physical punishment in Ukraine, use of physical punishment has declined, from about 38% of parents in 2005 responded yes to at least one of the items asking about spanking, slapping, hitting child with an object (Lansford & Deater-Deckard, 2012); to about 32% of parents responded affirmatively to these same items in 2012 (Lansford et al., 2017). Despite the legal ban, however, the data from this study would further suggest that many Ukrainian parents still use physical punishment, including more serious forms such as hitting a child with an object that could result in physical abuse. Durrant and colleagues suggest that it can take up to one generation for norms related to physical punishment to change significantly enough to be reflected in parenting behaviors. Notably, Ukrainian parents also reported high use of nonviolent discipline strategies, such as explaining why something was wrong and redirecting the child (Lansford & Deater-

Deckard, 2012). There is significant variation in use of physical discipline by region as well. For example, Ukrainian parents reported lower levels of severe physical violence toward their children in comparison to other countries with similar economic conditions and resources (Lansford & Deater-Deckard, 2012).

4.5. Study limitations

There are important study limitations to note. Like all cross-sectional analysis, causal attributions cannot be made with this data. The study results suggest associations among variables, but the direction of effects is unknown. Future research would benefit from the use longitudinal data to gain a clearer picture of the time order of variables in this study. In addition, the measures in this study rely on mothers' self-reports. Physical punishment of children is a common parenting practice in Ukraine (Burlaka, 2016). However, Ukraine has ratified the UNCRC, which has been shifting parenting norms in Ukraine toward supporting non-violent discipline (United Nations Children's Fund, 2005). Thus, mothers may have under-reported their use of physical punishment to give a socially desirable response.

Unfortunately, this study did not include mothers from the West region of Ukraine. Somewhat relatedly, our analyses did not control for observed characteristics at the city level (e.g., income of city), which may potentially have confounding relationships with the predictors and the outcomes. Also, there may be other unobserved characteristics of cities (e.g., parenting norms in neighborhoods that are more accepting of the use of harsh physical punishment such as hitting with object) that are correlated with the variables in this study. Nevertheless, the random intercept term in our multilevel models provides some statistical control for such differences at the city level.

5. Conclusion

The findings of this research suggest that interventions designed to reduce any type of parental physical punishment among Ukrainian parents should implement programs that focus on positive family processes while considering similarities and differences at the regional level. Particularly, these interventions designed to reduce the physical punishment would seemingly benefit from improving family communication and focusing on the ways in which mothers deal with stress, as the type of coping strategies that mothers employ may be associated with their disciplinary use. Finally, the importance of spiritual experiences that have possible associations with parents' psychological well-being should be noted in these interventions. Notably, promoting social norms on positive parenting in both the family and community contexts is likely to eliminate risk factors to parental physical punishment more effectively.

The clustering of parental use of different types of physical punishment at the city level in our analyses underscores the need to further identify community-level predictors of physical punishment. Campaigns that discourage physical discipline and encourage positive discipline may be particularly effective when regional characteristics such as community norms around parenting practices are considered. Furthermore, universal parent intervention that aims to change parenting norms using group-based parent education programs (Palusci, Crum, Bliss, & Bavolek, 2008) or television billboard messaging that promote positive parenting strategies (Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009) may be a valuable parenting resource in certain Ukraine cities in which physical punishment is more widely accepted.

Increasingly, the intervention literature in parenting recognizes that one cannot simply advocate reductions in the use of physical punishment but must also specifically delineate positive parenting actions that one can take. Holden, Grogan-Kaylor, Durrant, and Gershoff (2017), provide a powerful vision of what they termed the "strong version" of the positive parenting literature. Durrant (2013) offers a universal,

^{**} p < 0.01.

^{***} p < 0.001

practical guide to parents that builds trust in their relationship with children and that teaches children problem solving skills. In sum, this study suggests that parenting intervention in Ukraine should consider a multilevel approach, which promotes positive parent and family processes in the families and community norms.

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