

# VIOLENT DISCIPLINE

## in the Middle East and North Africa Region

A statistical analysis of  
household survey data

January 2019

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Suggested citation: United Nations Children's Fund, *Violent Discipline in Middle East and North Africa: A statistical analysis of household survey data*, UNICEF, MENARO, 2018.

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household survey data

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# ACKNOWLEDGEMENTS

The preparation of the report was managed and coordinated by Hrayr Wannis, Monitoring and Research Specialist in UNICEF Middle East and North Africa (MENA) regional office. Kay Engelhardt was the consultant who conducted the data compilation, processing, analysis and writing of the report.

Valuable guidance and insights were received from Claudia Cappa, Isabella Castrogiovanni, Roumiana Gantcheva, Shane Khan, Anthony McDonald, Nicole Petrowski and Vincent Petit. Technical inputs on the methodology and model choices were also provided by Shane Khan. Further insight was received through UNICEF MENA child protection network colleagues and country offices.

Communication advice was received from Juliette Touma and the report design and layout was done by Diana Samman.



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# FOREWORD

In recent years, conflicts and displacement in some Middle East and North Africa (MENA) countries have put a very heavy burden on children and caused severe violations of their basic rights, including the right to be protected from all forms of violence, abuse and exploitation. Killing and maiming of children, their recruitment and use by parties to conflicts, sexual and economic exploitation and gender-based violence are just some of the gravest manifestations of violence against girls and boys that have been widely documented. But violence is not only occurring at times of war. It is a pervasive problem across the region, including at home, as it is in so many parts of the world.

To better understand the scope and drivers of violence against children at home and to inform advocacy and programming, UNICEF undertook a secondary analysis of available household survey data across the region, and summarised into a report. This report sheds light on the experiences of violence that girls and boys are exposed to, in the form of physical and psychological punishment, where very often the perpetrators are the parents, caregivers or other household members.

Periodically, national statistical offices – often with the support of UNICEF’s Multiple Indicators Cluster Surveys (MICS) programme – generate comprehensive data on the situation of children, and on the progress of realization of their rights. In these household surveys, data on physical and psychological punishment at home is captured through the child discipline module. From a total of 20 countries<sup>1</sup> in the region, 12 countries are included in this report given they had data which were publicly accessible, relatively recent and of quality. The report covers the largest dataset available to date on violent discipline practices in MENA, yet it is limited to the number and type of variables found in these surveys. The compiled data set covered 70 per cent of the child population aged 2-14 in the MENA region, representing a total of 85 million children.

The findings provide an overview of the prevalence of violent child disciplining practices across the MENA region, and highlight national and sub-national variations. Furthermore, the potential effects of violent disciplining on child development are explored through bivariate analysis, and, utilizing the ecological model, underlying risk factors are identified – these increase the likelihood of children experiencing violent disciplining at home.

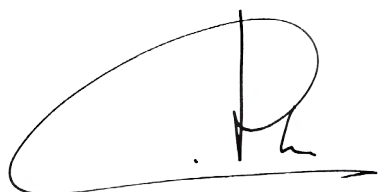
The report confirms some of the findings from other regions. However, there are a number of interesting findings for which no comparative data exists. For example, on a global level, overall development and income are negatively associated with prevalence of violent discipline but for MENA countries, we found no evidence for this association. Another important finding is that risk factors appear to have a cumulative effect on children.

I hope that the readers will find this analytical report informative and a useful reference for advocating and developing strategic programmes to end violent discipline at home.

Geert Cappelaere

Regional Director

UNICEF Middle East and North Africa Regional Office



<sup>1</sup> UNICEF Middle East and North Africa region includes: Algeria, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, State of Palestine, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen.



# ACRONYMS

DHS	Demographic and Health Survey
ECD	Early Child Development
GNI	Gross National Income
HDI	Human Development Index
MICS	Multiple Indicator Cluster Survey
MENA	Middle East and North Africa
MENARO	Middle East and North Africa Regional Office
MODA	Multiple Overlapping Deprivation Analysis
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
VAC	Violence against Children
VD	Violent Discipline

# KEY DEFINITIONS

Psychological aggression	Shouting, yelling or screaming at a child, as well as calling a child offensive names such as 'dumb' or 'lazy'.
Physical punishment	Shaking, hitting or slapping a child on the hand/arm/leg, hitting on the bottom or elsewhere on the body with a hard object, spanking or hitting on the bottom with a bare hand, hitting or slapping on the face, head or ears, and hitting or beating hard and repeatedly.
Severe physical punishment	Hitting or slapping a child on the face, head or ears, and hitting or beating a child hard and repeatedly.
Violent discipline	Any physical punishment and/or psychological aggression.



# EXECUTIVE SUMMARY

Violent child discipline is the most common form of violence at home that children are submitted to. Therefore, in previous years research activity by UNICEF and others focused on collecting data on this global phenomenon. The most comprehensive data on violent child discipline comes from the child discipline module that has been applied in roughly 80 countries around the world in the past 15 years. Despite this wealth of evidence, to date this data has not been fully utilized to explore the phenomenon beyond the country level. Recent analyses on violence against children found that countries in the MENA region have the highest prevalence of violent disciplinary practices globally (e.g. United Nations Children's Fund, 2014, 2017).

As of November 2017, 12 countries in the region have collected data on violent and non-violent child discipline either through the use of the multi indicator cluster survey (MICS) or the demographic and health survey (DHS) violent discipline module<sup>2</sup>. This wealth of data at regional level provides – for the first time - the opportunity to conduct a range of in-depth secondary analyses to generate more evidence on the interactions among some of the different components - limited to those for which data is collected - that influences the parents' adoption of violent child disciplinary practices.

To improve its advocacy and improve its programmes, UNICEF Middle East and North Africa Regional Office (MENARO) has identified the need to better understand the phenomenon of violent discipline in the Middle East and North Africa (MENA) region. As previously data has only been analysed on the country level, this regional analysis is the first of its kind.

## Main objectives of this study:

- Conduct a comparative cross-country equity analysis of violent discipline prevalence for children aged 2-14 across dimensions such as age groups, wealth, educational attainment, and other relevant characteristics;
- Analyse the associations of violent disciplining practices and early childhood development;
- Understand in how far positive attitudes towards physical punishment and other risk factors (age, sex, caregiver's educational attainment influence violent discipline) influence behaviours.

## The following methods were utilized on the pooled datasets comprised of 15 surveys:

- Descriptive methods, such as scatterplots, cross-tabulations and maps to describe the prevalence of different violent disciplinary actions;
- Factor Analysis to explore latent dimensions in the perception of different disciplinary measures;
- Hierarchical Logistic Models to control for sub-national and national variations with respect to these risk- and protective factors.

This analysis aims to inform child protection specialists in UNICEF MENA regional office and countries, as well as national government counterparts, academia, organisations, and agencies concerned with child protection policy and advocacy issues.

<sup>2</sup> Algeria, Djibouti, Egypt, Iraq, Jordan, Lebanon, Qatar, State of Palestine, Sudan, Syria, Tunisia, Yemen.

# KEY FINDINGS

## Prevalence of violent discipline in the MENA Region

PREVALENCE RATE OF  
**VIOLENT DISCIPLINE** FOR  
ALL 12 COUNTRIES IN THIS STUDY



WITH AN ESTIMATED POPULATION OF  
**85 MILLION CHILDREN**  
aged 2-14 years across the surveyed  
countries,



have experienced this type of behaviour

**68 MILLION CHILDREN**  
have experienced  
psychological  
aggression



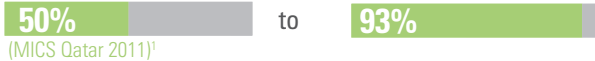
**60 MILLION CHILDREN**  
have experienced  
physical punishment



roughly  
**27 MILLION CHILDREN**  
have experienced  
severe physical  
punishment



The prevalence rates of  
**violent discipline in MENA range between**



**in Egypt** (DHS1-2014) **and Tunisia** (MICS 2012),  
with the majority of countries being in the range of



The prevalence rates are consistently  
**highest** in Egypt, Tunisia and Yemen, but  
**lowest** in Qatar.

There is only limited variation between  
countries in terms of the prevalence  
of the more specific types of violent  
discipline (psychological aggression,  
physical punishment and severe physical  
punishment).

**Prevalence rates for all types of violent  
discipline varied to a large degree across  
sub-national entities** (such as governorates)

For example, the prevalence for psychological  
aggression in Central Darfur is around



whereas in neighbouring  
South Darfur it is around



This suggests that there are important  
differences on the sub-national level  
that need to be recognized.

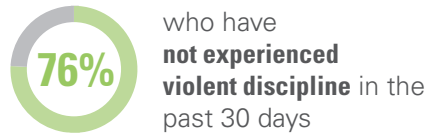
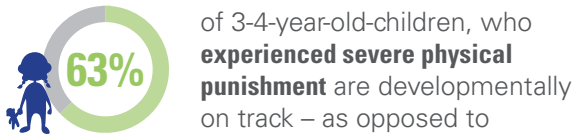
**WHILE ON A GLOBAL LEVEL,**

variables such as a  
**high Human Development Index  
score or Gross National Income  
per capita** could be found to correlate  
negatively with the prevalence on  
violent discipline, such an effect could  
not be found for countries in the MENA  
region.

3 The prevalence rates for "Any violent discipline" and physical punishment for Qatar is subject to debate, as the localized MICS questionnaire excluded the item "Spanked, hit or slapped child on bottom with bare hand".



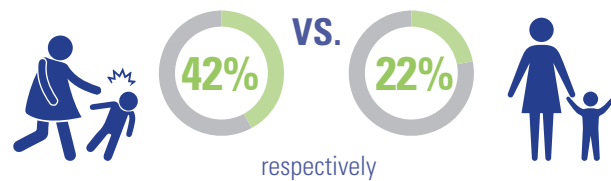
## Impact of violent discipline practices on early childhood development



Children, who have been subjected to severe physical punishment are more violent, they **“kick, bite, or hit other children or adults”**

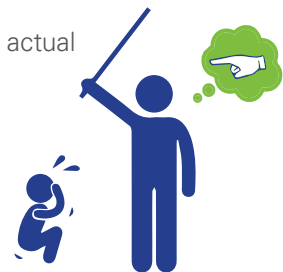
### **TWICE AS OFTEN**

compared to those, who have **not experienced violent discipline** in the past 30 days.



## Linkage between the attitudes towards physical punishment and practice

There is a link between positive attitudes towards physical punishment and the actual use of physical punishment. In the majority of countries in the MENA region, **the prevalence rates are in all cases higher than the acceptance rates of physical punishment** which tends to indicate the existence of other drivers - **possibly social ones** - behind these behaviours which explain that **people don't necessarily act in accordance with their individual opinions and what they think they should do.**



An analysis of women's attitudes towards **domestic violence** and the prevalence of any **violent discipline**, however, yielded a **positive association between the two variables**, suggesting that they are related.



Risk and protective factors that can promote or prevent violent discipline:  
Children with the highest odds of being subjected to psychological aggression or severe physical punishment:



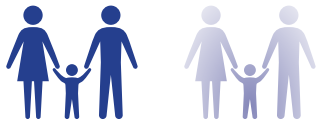
**Boys** with **1.3 times higher** odds than girls



**Between the ages 5-9** years (**1.4 times higher** than children aged 10-14)



**Children living in rural households** compared to urban dwellers are **1.05 times higher**



**Children living with both parents** – their odds compared to children, where least one parent has died are **1.36 times higher**



**Children where the respondent** (as a proxy for parent or other caregiver) **has a positive attitude towards physical punishment** raises the child's odds of being subjected to physical punishment almost threefold (**2.94 times**).

Profiling households that use and do not use violent discipline:

**Risk and protective factors can have a cumulative effect**, when combined: the prevalence of a child to become a victim of severe physical punishment, for whom all risk factors are true (a boy child, living in a rural household and living in a household where the respondent has a positive attitude towards physical punishment) is



as compared to



where none of these risk factors is true

Respondents appear to **distinguish between very violent behaviours** (such as hitting the child in the face or beating the child up)



**and disciplinary ones** (such as explaining the child what s/he did wrong or grounding him or her)



However, there are behaviours (such as yelling, shaking or slapping the child on the bottom) **that respondents appear to consider to be acceptable, yet not violent.**



The predictors available from the MICS and DHS surveys analyzed in this study are **mostly socio-economic variables**, such as sex, age, education, etc. The multivariate models used in this study suggest that these variables do not suffice to develop accurate household profiles, **which can explain the use of different disciplinary measures.**

# RECOMMENDATIONS

This secondary research is the first of its kind. It aggregated data from 12 country level representative surveys to shed light on child disciplining practices at the national and sub-national levels across the Middle East and North Africa region.

Below are the recommendations of this study categorized under advocacy and policy dialogue, programming and monitoring. In considering and taking forward these recommendations, it is important to recognize that every sector has a vital role in violence prevention and response across the life course of a child. Multi-sectoral collaboration is therefore critical because it can ensure, inter alia, a continuum of support and care for children at risk or survivors of violence; it can multiply impact; ensure that a full range of perspectives, skills and resources are represented and used; improve the ability to analyse, understand and address complex interactions of risk and protective factors; support cost-effective use of resources; strengthen accountabilities and ultimately improve outcomes for children and families who experience or are at risk of violence.<sup>4</sup>

These recommendations are very much aligned with and reinforce those contained in other global or regional studies and programming frameworks on violence against children, including the Inspire Seven Strategies for Ending Violence Against Children.

## Advocacy and Policy Dialogue

- The main findings of this study should be discussed with an assembled pool of experts from relevant disciplines, at both the regional and country level, with a view to ensure contextualization, prioritization and agreement on concrete follow-up actions.
- Where feasible, such expert consultations should be organized as part of the ongoing regional and country level efforts around the larger Violence Against Children agenda to maximize resources and capitalize on existing efforts. Fostering those linkages is necessary also as violence in one setting is naturally intertwined with violence in other settings.
- Once validated and endorsed, the findings emanating from this study should also be used to initiate a policy dialogue with governments (both central and sub-national entities) to generate the normative changes needed at the policy and legislative level to ban all forms of violent discipline practices at home, and in other settings too, as well as ensure effective enforcement of laws that define and prohibit all forms of violence. Whilst laws alone do not reduce violence, including at home, their effective implementation and enforcement can support and strengthen all other strategies to end violence against children.

## Programming

- This study clearly showed that some children are at an heightened risk of violent discipline at home. However, with an average violent discipline prevalence rate at household level of 84 per cent, there is an urgent need to scale up investment in evidence-based parenting and caregivers' programmes (initially in hotspot areas, later nationwide) that are multi-sectoral and cut across the life course of children. Such programmes provide parents and caregivers with the skills they need to shift to positive and non-violent child discipline practices. Programmes that support parents and caregivers are cost effective ways to strengthen parent-child relationships, care-giving, and the health, safety and resilience of children and families, which eventually help preventing all types of violence. Such programmes typically fall into three categories: parenting in community group settings; home-visiting programmes (both of which can be delivered by nurses, social workers or trained lay workers); and more comprehensive programmes which tend to be part of other social or educational programmes such as life skills or economic strengthening programmes.<sup>5</sup>
- In addition, there is a critical need to invest in behaviour change interventions to address the underlying and specific drivers of violent disciplining practices. Such interventions are critical to address the general acceptance and normalization by parents, children, and the society at large, of violent discipline. Such interventions around child-rearing, gender roles and the acceptability of violence are critical to promote positive norms and values and reduce the impact of harmful practices on children.
- Moreover and in support of other interventions, nationwide communication campaigns should be implemented focusing on the detrimental immediate and long-term effects of violent discipline on the health, well-being and development of children.

4 INSPIRE HANDBOOK

5 INSPIRE HANDBOOK

## Monitoring

- Although the standard tabulations available in the DHS and MICS surveys do showcase various disaggregates which help in the analysis of inequities in violent discipline practices, these surveys lack data on the drivers of these behaviours from a social and cultural standpoint. To this end, it will be critical to ensure adequate investment is made in developing a comprehensive monitoring framework, with accompanying measurement tools, to assess progress against changing behaviours that are leading to violent child discipline at home.
- Strengthen investment in national administrative data systems across health, education, social welfare, justice and other national administrative systems concerned with provision of child protections services. These systems would be crucial in providing more frequent data on children who are accessing and benefitting from services.

# LIMITATIONS

This research uses the largest dataset to date on violent discipline, yet it is composed of multi-purpose survey data. This means that the study is limited analysing to the variables found in these surveys (age, sex, education, etc.) which are mainly socio-demographic. Therefore, a key limitation of this analysis is that a number of other influential predictors that are suggested by researchers are not available through these surveys and therefore cannot be explored further.

The questionnaires were adapted to local conditions before deploying them into the field. In some cases, behaviours measure child discipline were phrased differently across surveys or were not available at all (for example, items on psychological aggression was not asked in Yemen). This had an impact on the total number of predictor variables that could be employed but also on the comparability of data across countries.





# I ■ BACKGROUND

## II. 1 LEGAL PROVISIONS

The UN Convention of the Rights of the Child is the first international treaty that takes special reference to the (human) rights of children in all aspects of their lives. Currently, all states recognized by the United Nations have ratified the convention, with the exception of the United States of America.

The Convention consists of 54 articles, that - besides describing the child's civil, political, economic, cultural and social rights – formulate the steps that state parties need to take to guarantee such rights to all children (Poretti et al., 2014).

A central point of the convention is the prevention of bodily or mental harm for the child, as clearly laid out in Article 19(1):

*“States Parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parent(s), legal guardian(s) or any other person who has the care of the child...” (Poretti et al., 2014, p. 5)*

This article means that – among others - any corporeal or psychological abuse or violence is a violation of the child's basic human rights. Although the Convention acknowledges the right of the family (or other caregivers as appropriate for the situation) to provide children with “appropriate guidance”, this explicitly excludes violent or abusive measures like physical punishment.

To monitor the implementation and status of the UN CRC, the UN General Assembly called for *UN Secretary General's Violence Study* in 2001. It was designed to get a better understanding of the current status of the legislative framework to better protect children from violence as well as to obtain up to date information on prevalence rates for both violence against children (VAC) as well as violent discipline (VD).

## II. 2 RESEARCH ACTIVITIES TO DATE

As a reaction to the *UN Secretary General's Violence Study*, that was published in 2006, several national and international surveys on VAC have been conducted (i.e. the CDC surveys, the Optimus Study, diverse VAC surveys in Uganda, the Maldives, etc.).

In addition, UNICEF developed a dedicated child discipline module that was included in a number of Multiple Indicator Cluster Surveys (MICS) from 2005 onwards. It represents a condensed form of the parent-child conflict tactics scale tools developed by Murray Straus (Straus, 1979; Straus et al., 1996), and the world-safe survey, which are both instruments that measure parent child interactions in a detailed manner.

The MICS child discipline module essentially measures the prevalence of three different forms of behaviours in terms of child discipline across 11 items: non-violent discipline, psychological aggression as well as physical punishment, of which, as according to the UN CRC the two latter ones are regarded as violent discipline. In addition, it also consists of a question on the respondent's attitude towards physical punishment.

Following the success of the MICS module, the Demographic and Health Survey (DHS) has also included it as an optional module into the survey programme.

At this stage, the existence of dedicated VAC surveys as well as data from the MICS and DHS provides a robust evidence base on a global level. Indeed, in lieu of dedicated violence and child abuse surveys, the Sustainable Development Goals indicator 16.2.1 is monitored in many countries using data from the MICS and DHS.

The Child Protection Monitoring & Evaluation Reference Group (CPMERG) for example identified more than 30 quantitative surveys on the issue - excluding regular surveys such as the MICS and the DHS (Child Protection Monitoring and Evaluation Reference Group, 2014).

Evidence on the existence of risk factors originally proposed Ecological Model Theory were substantiated by subsequent studies: for example, researchers have identified structural and economic factors such as poverty, unemployment and inequality (Berger, 2004; Freisthler, Merritt and LaScala, 2006; Epps and Huston, 2007; Peterman et al., 2017), individual characteristics of the caregivers such as alcohol abuse, (economic) stress or depression (Black, Heyman and Smith Slep, 2001; Freisthler, Merritt and LaScala, 2006).

Other researchers have analyzed which children are at a higher risk of becoming victimized (i.e. young age, male children, disabled children), (Belsky, 1993; Dietz, 2000), or the influence of the larger family background (Berger, 2004; Stith et al., 2009; Lo et al., 2017).

Besides these findings, evidence exists that highlights the long-term effects on children who have suffered from violent discipline (Mohr and Anderson, 2002; Ohene et al., 2006; Straus and Paschall, 2009; Min et al., 2013; Nguyen Ho Minh Trang, 2014; Fry et al., 2016; Hashimoto et al., 2016). In addition, links between violence against women and violence against children have been identified, too (Fang and Corso, 2007; Guedes et al., 2016).



## II. 3 LACK OF INTERNATIONALLY COMPARABLE DATA ANALYSES

Despite the large number of surveys on the matter, to date, the majority of analyses were conducted at the country level – using data from dedicated surveys that focus on the issue of violence against children.

Indeed, very few studies actually use the globally comparative data gathered from the above-mentioned MICS and DHS violent discipline module. Cappa and Dam (2014) harnessed the wealth of information available in the MICS to understand the risk factors for becoming a victim of violent discipline on the country level in Vietnam. A key finding of this research was that children living in households, where the respondent believed that physical punishment is required to “educate a child properly” were at a significantly higher risk of becoming victimized. Furthermore, the research found that boys are at higher risk compared to girls and that the risk of suffering from physical punishment decreases with the child’s age. To some extent this study also compared the findings with those from the neighbouring country of Laos to identify the same patterns. However, until recently, such secondary analyses of MICS and DHS data only focused on single countries – and did not employ comparative methodologies of the drivers or protective factors on violent discipline globally or regionally.

One of the first truly comparative analyses of findings from MICS data on violent discipline for the African continent was prepared by Akmatov (2011), who arrived at the same conclusions as Cappa and Dam, but, also identified a slight negative gradient in household wealth as a risk factor.

The first comprehensive international compilation of data on violence against children was published only as recently as 2014, when UNICEF released its ground-breaking report “*Hidden in plain sight*” (UNICEF, 2014). The study, not only presented global data from existing studies, but also examined the relationship to other country-level indicators, that were suggested to play a role in violence against children (such as the Gross National Income, Gini-coefficient, child homicide rates, and others).

This report was followed up by the recent study “*A familiar face*” which presented, among others, findings from the MICS and DHS violent discipline modules as well as other data sources, such as the number of adolescent deaths related to collective violence (UNICEF, 2017).

These recent reports used mostly descriptive analyses (i.e. by comparing prevalence rates for violence against children and violent discipline for low and high-wealth households).

Both reports (“*A familiar face*” and “*Hidden in plain sight*”) concluded that violence against children is exceptionally high in countries in the Middle East and Northern Africa. In terms of violent discipline, among the top ten countries globally with the highest prevalence among children aged 2-4 years are five countries in the MENA region: Egypt, Tunisia, State of Palestine, Jordan, and Morocco (UNICEF, 2017, p. 22).



## II ■ PURPOSE OF THE SECONDARY RESEARCH PROJECT

Despite the wealth of information in these newly published global analyses, no in-depth analysis exists for countries in the MENA region. UNICEF therefore initiated a project to conduct a secondary data analyses of existing surveys to:

- Provide a broad overview of the issue in the region, the scale of the problem and the number and distribution of children experiencing violent disciplining in MENA, including trends and possible projections, (chapter V).
- Conduct multivariate analysis to profile household and caregivers, who practice violent disciplining in MENA; identify similarities and differences across countries and with other regions (similar in GNI, emergency setting, HDI) (chapter VI).
- Conduct multivariate analysis to study effects of violent disciplining practices on early childhood development (chapter VI.1).
- Study how belief in violent discipline affects practice and how it varies across countries while controlling for other characteristics (chapter VI.4).
- Conduct a comparative cross-country equity analysis of prevalence of violent discipline by age, sex, caregiver's educational attainment, wealth and other relevant characteristics, as feasible and relevant (chapter VII).
- Profile households and families, who use non-violent discipline in MENA (chapter VIII).

The purpose of this study is to use existing data sources to provide a better understanding of the situation in the MENA region.

# DATASET

The dataset used for this secondary analysis consists of data from a total of 15 surveys (11 MICS, three DHS and four other surveys) from the following countries.

**TABLE 1: MICS/DHS surveys included in the individual level dataset**

SURVEY TYPE	COUNTRY (YEAR)	Total sample size (Households)	Total children aged 2-14 included in study
MICS	Algeria (2012-13)	28,000	16,875
MICS	Djibouti (2006)	5,209	3,189
DHS	Egypt (2014)	28,175	13,487
MICS	Iraq (2011)	36,592	27,906
DHS	Jordan (2012)	15,190	6,238
other	Lebanese resident population survey (2015-16)	10,053	3,901
other	Palestine refugees in Lebanon Survey (2015-16)	5,055	2,192
other	Palestine refugees from Syria in Lebanon Survey (2015-16)	2,176	850
other	Syrian Refugees in Lebanon (2015-16)	2,885	1,636
MICS	Qatar (2012)		2,781
MICS	State of Palestine (2014)	11,125	6,341
MICS	Sudan (2014)	18,000	10,811
MICS	Syria (2006)	20,022	12,847
MICS	Tunisia (2011-12)	9,600	4,086
DHS	Yemen (2013)	17,351	13,371
<b>TOTAL</b>			<b>126,511</b>

The majority of datasets were collected through the MICS/DHS cluster survey methodology in the respective years and are able to provide researchers with estimates on different aspects of families and their children's lives – i.e. health, sexuality, education, etc. (The DHS Programme, 2018; UNICEF, 2018). The sample design is able to provide representative / generalizable estimates not only for sub-national levels in a given country (i.e. governorates or specifically created 'sub-national regions' for the survey).

The other surveys conducted in Lebanon use the same modules as MICS, but they are not part of the "MICS" survey programme. Rather, they were standalone subpopulation surveys conducted with operating partners to assess the situation of all children (including Syrian and Palestine refugees in Lebanon and those residing in formal and informal camps) in Lebanon in early 2016.





# V TYPES OF CHILD DISCIPLINE

UNICEF's MICS and the DHS measures child discipline by using a modified version of the Parent–Child Conflict Tactics Scale (CTSPC). The original Conflict Tactics Scale (CTS1) was proposed by Murray Straus in 1979 as an instrument for clinical and epidemiological studies. Both the CTS1 and CTSPC have proven to provide moderate to good test-retest reliability and construct validity (Locke and Prinz, 2002).

The core CTSPC questionnaire consists of 22 items that include the dimensions “non-violent discipline”, psychological aggression and “physical assault”. They can be extended through optional items on “neglect” and “sexual abuse”. Responses (with the exception of the items on sexual abuse) are scored on an eight-point scale to indicate the frequency of this behaviour in the past year.

Originally developed for the North American context by Murray Straus and his collaborators, the CTS1 and CTSPC have been extensively tested in international surveys and discussed in peer-reviewed articles.

Because it is such a widely tested and internationally accepted instrument, UNICEF, together with academic partners decided to pilot the instrument to explore its usefulness for the MICS surveys as a stand-alone module (UNICEF, 2010).

As a result of this process, the child discipline module was first introduced in a total of 35 MICS 3 and DHS surveys starting in the year 2005. This modified version of the CTSPC has been shortened to include only disciplinary behaviours that proved to be cross-culturally comparable, removing those behaviours that appeared to be prevalent only in specific areas (UNICEF, 2010).

Since the MICS 3, the child discipline module enquires the prevalence of 11 behaviours across the following types of child discipline:

- Psychological aggression
- Physical punishment
- Severe physical punishment
- Non-violent discipline

The 11 behaviours and their mapping to the respective type of child discipline are shown in Table 2.

**TABLE 2:** Types of child discipline behaviours in child discipline module

TYPE OF CHILD DISCIPLINE	BEHAVIOUR
PSYCHOLOGICAL AGGRESSION	Shouted, yelled or screamed at child Called child dumb, lazy or another name
PHYSICAL PUNISHMENT	Shook child Spanked, hit or slapped child on bottom with bare hand Hit child on the bottom or elsewhere with belt, brush, stick, etc. Hit or slapped child on the hand, arm or leg Hit or slapped child on the face, head or ears Beat child up as hard as one could
SEVERE PHYSICAL PUNISHMENT	Hit or slapped child on the face, head or ears Beat child up as hard as one could
VIOLENT DISCIPLINE	Any of the above behaviours
NON-VIOLENT DISCIPLINE	Took away privileges Explained why behaviour was wrong Gave child something else to do None of the violent behaviours above

For each item the respondent (who could be any member of the household, not necessarily the mother, father or other caregiver), is asked whether or not the (randomly selected) target child experienced such behaviour in “the last month”.

Unlike the original CTSPC, the answer scales were shortened in the child discipline module to “yes” and “no”, discarding the information how frequently the child experienced the behaviour in the past one month.<sup>6</sup> Moreover, no information about the perpetrator is collected.

If the child experienced any of the behaviours shown in Table 2 in the last month, the child is considered to have received the corresponding category of child discipline: for example, if the respondent confirms that a child has been “yelled at” in the last month, the child is considered to have experienced psychological aggression.

After enquiring these 11 disciplinary behaviours, the final question in the child discipline is:

“Do you believe that in order to bring up, raise, or educate a child properly, the child needs to be physically punished?”

This question again permits the answers “yes” or “no”.

<sup>6</sup> Apart from these two options, two additional answer categories (not read out) are permitted “don’t know” and “refused”.



# COMPARABILITY OF THE ITEMS ACROSS COUNTRIES

To date, the module has been run in 79 countries, making it the most comprehensive measurement for child discipline.

While the module is meant to be standardized, the formulation of items can sometimes differ from country to country. This is due to customizations of the questionnaires to make them more appropriate for the country context.

A comparison of the standard items in the module and the country-level modifications are shown in Annex 2. For example, while in most MENA countries the questionnaire asked whether privileges were taken away from the child, in Yemen and Jordan the question was rephrased into “grounded the child”, which is a behaviour that is not immediately comparable. Moreover, in Yemen and Jordan the questions did not ask whether a child was “slapped” – only if s/he was “hit”; whereas in the other countries both actions (“hit or slapped”) in their items.

Significant differences appear in the item “beat child up as hard as one could”. Indeed, some surveys (Iraq, Qatar and Syria) used “beat child up with an implement” instead, which might be considered an overall different behaviour although it still constitutes a severe physical punishment.

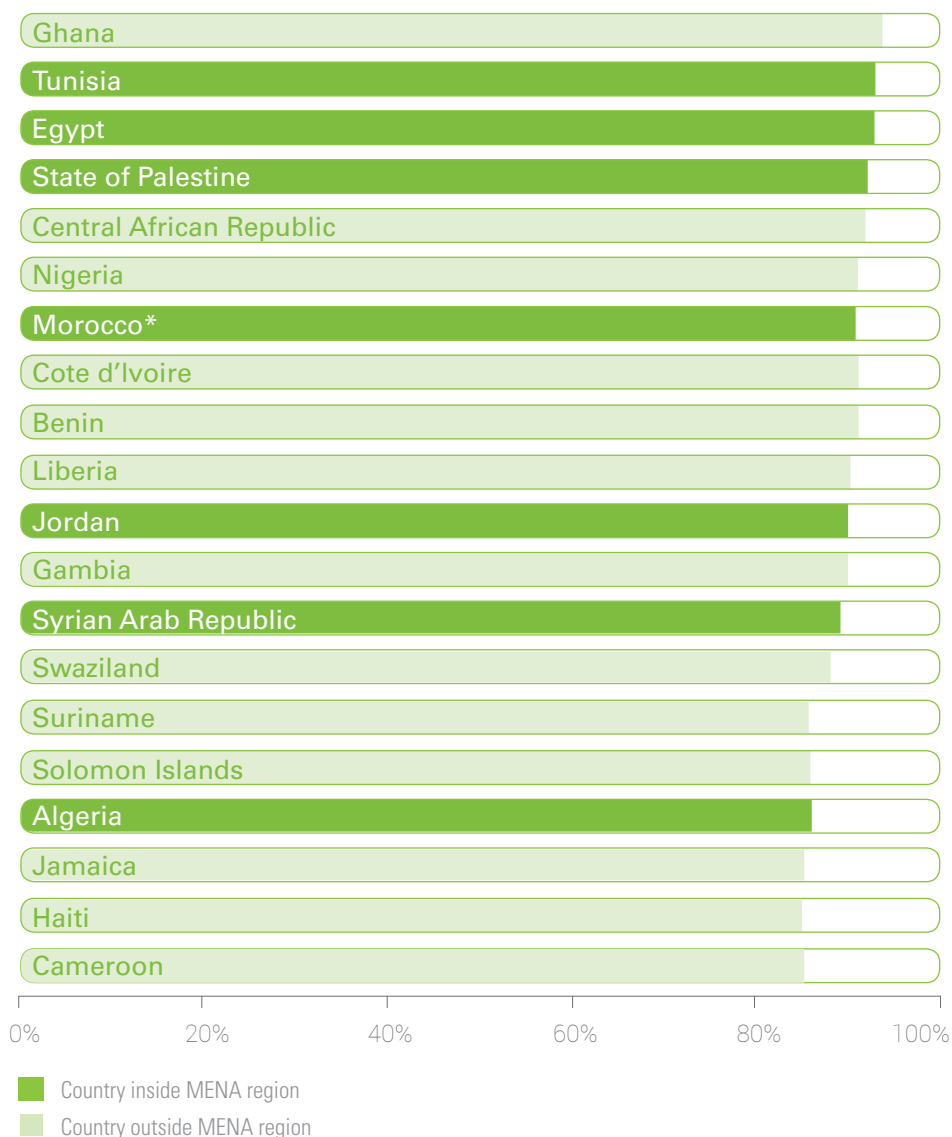
These differences between the questionnaires make a direct comparison of aggregated child disciplinary actions (i.e. severe physical punishment) between countries more difficult.



# V PREVALENCE OF VIOLENT CHILD DISCIPLINE GLOBALLY AND IN THE MENA REGION

As indicated above, the recent report “A familiar face” (UNICEF, 2017) described the prevalence of violent discipline on a worldwide level. The below shows the 20 countries with the highest prevalence rates for violent discipline for children aged 2-14 years (UNICEF Data and Analytics Section, 2017a). Among these, seven countries are part of the MENA region (countries in the MENA region are marked in dark green). Indeed, the five countries with the highest prevalence rates (92 per cent or above) include three countries from the MENA region.

**Figure 1:** Country comparison: prevalence rates for violent discipline among 2-14 year olds



Source: UNICEF Data and Analytics Section, 2017

\* Morocco is part of the MENA region, but not part of this analysis.

As mentioned in chapter II, several researchers (i.e. Iadicola and Shupe, 1998) have pointed to measures of (material) inequality as potential explanations for violence against children. In an initial analysis we therefore compared the prevalence for any violent discipline for children aged 2-14 from all 79 countries with their respective HDI score and Gross National Income per capita in USD (UNDP, 2016; UNICEF Data and Analytics Section, 2017a).

The below chart suggests a medium correlation ( $r = -.49, p = .0007$ ) between the two variables, meaning that there is a negative correlation between the two (a higher HDI score corresponds to a lower prevalence rate). However, this does not necessarily apply to the 11 countries in the MENA region that are included in this study (shown as red dots): here no clear pattern arises. Indeed, it appears that with the exception of Qatar (the rightmost red dot) the two variables do not correspond at all: the – statistically insignificant – correlation between the two variables computed only for the countries in the MENA region is  $.025 (p = .935^8)$ .

**Figure 2: Prevalence of violent discipline for 2-14-year olds vs. HDI**

- Countries outside MENA
- MENA Countries
- ⋯ Linear (Countries outside MENA)

$n = 79$ ; Pearson Correlation Coeff.:  $-.49; p = .000$   
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; HDI data: UNDP, 2016



At the same time, we observe that Qatar is a clear outlier: the country has both the lowest prevalence rate for violent discipline as well as the highest HDI score of the countries included in this study. When we remove the country from the correlation analysis, we actually arrive at a different correlation score:  $0.66 (p = .027^9)$ , which indicates a medium positive correlation between the variables. This suggests that there is a positive association between an (increasing) HDI score and the (increasing) prevalence for violent discipline (Figure 3).

7 p-value = 0.000, 95% CI ( -0.6465462; -0.3092308)  
 8 p-value = 0.9349; 95% CI (-0.5331855; 0.5682975)  
 9 p-value = 0.01885; 95% CI ( 0.1432725; 0.8958722)

**Figure 3:** Prevalence of violent discipline for 2-14-year olds vs. HDI in MENA (excluding Qatar)

● MENA Countries  
 ..... Linear (MENA Countries)

n=12, Pearson Correlation Coeff.: .66, p= .027  
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; HDI data: UNDP, 2016

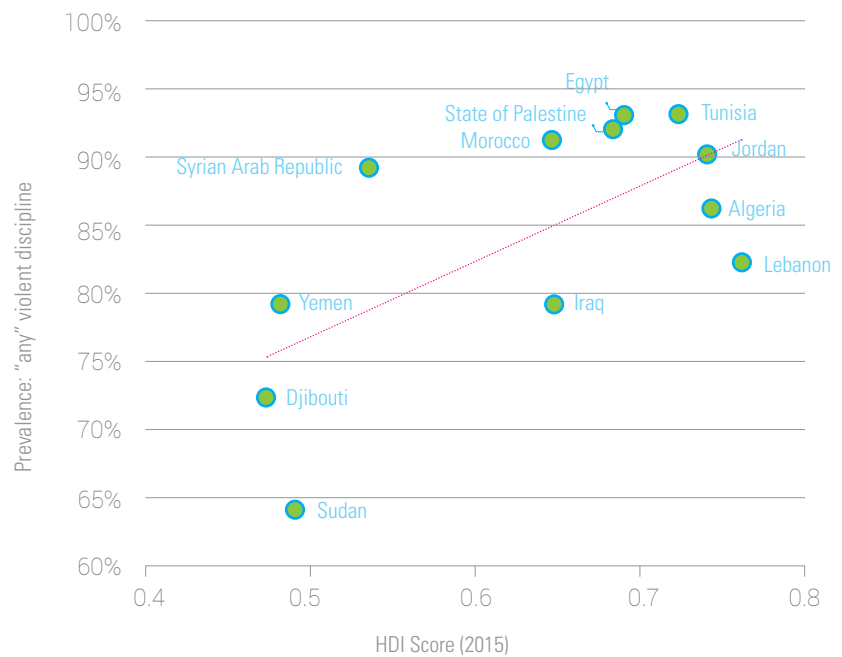


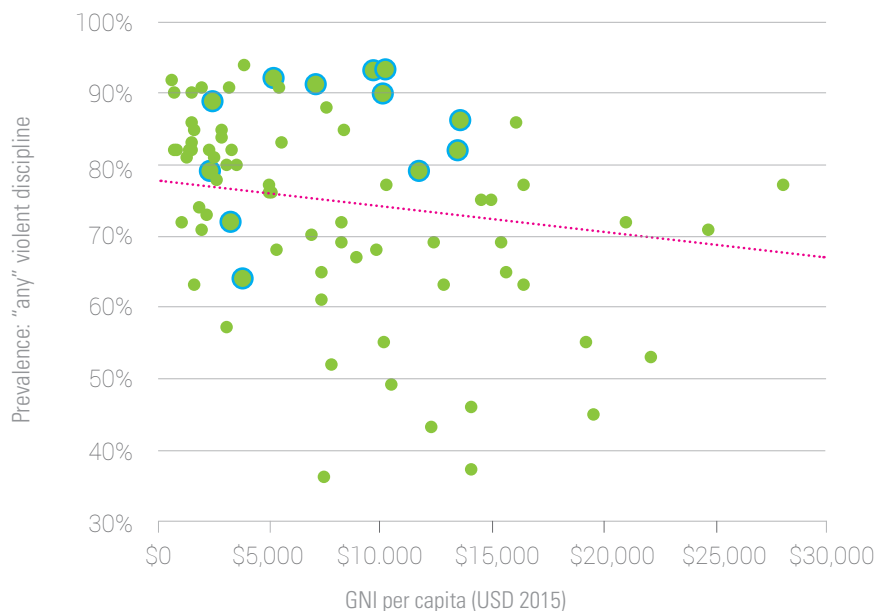
Figure 4 plots the prevalence rate for violent discipline against the Gross National Income (per capita in USD). The correlation between the two variables is weaker compared to the previous HDI analysis, and again it is negative (-.342, P=.002<sup>10</sup>).

Including only countries in the MENA region (and again excluding Qatar as it is an outlier), we obtain a correlation coefficient of .344 (p=.273<sup>12</sup>), again suggesting that violent discipline increases with a growing GDI per capita (Figure 5) – however, this finding is not statistically significant.

**Figure 4:** Prevalence of violent discipline for 2-14-year olds vs. GNI

● Countries outside MENA  
 ● MENA Countries  
 ..... Linear (Countries outside MENA)

n=79; Pearson Correlation Coeff.: -.34; p= .002  
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; GNI data: UNDP, 2016



10 p-value = 0.002007; 95% CI [-0.5238923; -0.1312808]

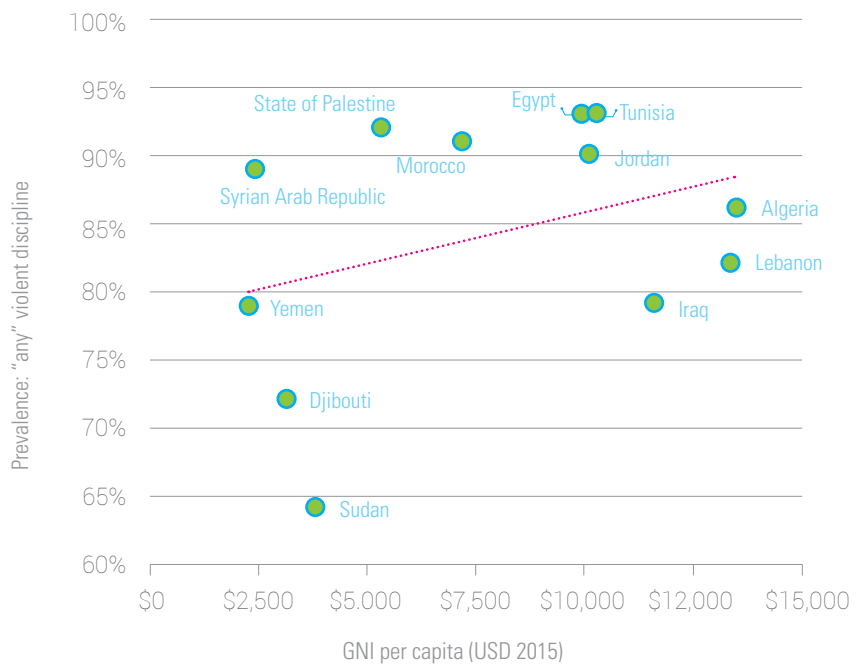
11 Qatar is an outlier excluded from the chart with a per capita GNI of USD 140,000.

12 p-value = 0.2727; 95% CI [-0.2858416 0.7668396]

**Figure 5: Prevalence of violent discipline for 2-14-year olds vs. GNI in MENA (excluding Qatar)**

● MENA Countries  
 ..... Linear (MENA Countries)

n=12; Pearson Correlation Coeff.: -.34; p= .273  
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; GNI data: UNDP, 2016



In the third analysis of this kind we compare the prevalence for any violent discipline with the women’s attitudes towards domestic violence as measured in the MICS and DHS. These are women who believe a husband is justified in beating his wife.

Figure 6 reveals a positive trend (a correlation of .52,  $p=0.000^{13}$ ) when we look at all countries for which data on these two variables are available. Interestingly, five out of the ten countries in the MENA region, report that 50 per cent or more women have positive attitudes towards domestic violence. At a global comparison, merely 25 per cent of countries display similarly high attitudes.

Focusing only on the countries in the MENA region – and including Qatar as it is not an outlier this time – we obtain a positive correlation between the two variables (.48,  $p=.19^{14}$ ), as shown in Figure 7. This seems to confirm the notion that there is also an association between positive attitudes towards domestic violence and violent child discipline for countries in the MENA region.

**Figure 6: Prevalence of violent discipline for 2-14 year olds vs. positive attitudes towards domestic violence**

● Countries outside MENA  
 ● MENA Countries  
 ..... Linear (Countries outside MENA)

n=79; Pearson Correlation Coeff.: .52; p= .002  
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; Domestic violence data: UNICEF Data and Analytics Section, 2017b



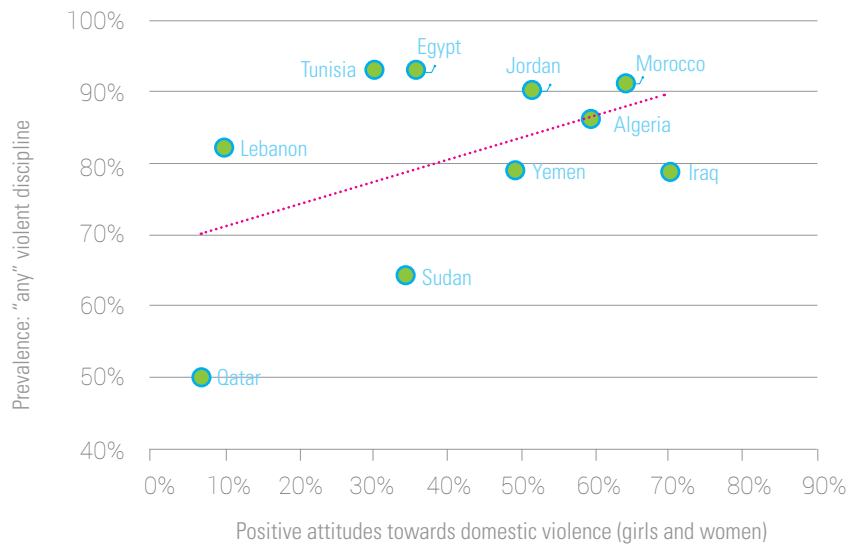
13 p-value = .233e-06; 95% CI [0.3248212; 0.6690004]

14 p-value = 0.1867; 95% CI [-0.2917511; 0.8961991]

**Figure 7:** Prevalence violent discipline vs. positive attitudes towards domestic violence for MENA

● MENA Countries  
 ..... Linear (MENA Countries)

n=12; Pearson Correlation Coeff.: -.48; p= .190  
 Sources: Prevalence data: UNICEF Data and Analytics Section, 2017; Domestic violence data: UNICEF Data and Analytics Section, 2017b







# V VIOLENT DISCIPLINE IN MENA

In this study, we use data from 12 countries (coming from 15 surveys) across the MENA region. For 2017 the United Nations Population Division estimates the population for the entire Middle East and North Africa region to be 459 million individuals (UN DESA Population Division, 2017). The same database calculates the number of 2-14 year olds in the region: these are approximately 120 million individuals. Using the same database and algorithm we calculated the population for children aged 2-14 in the countries covered by this study to be 85 million persons – or 70 per cent of the population in the region (see XII.1 in the Annex). According to UNICEF, survey data that covers more than 50 per cent of the target population in the region should be treated as representative for the entire region. Therefore, the estimate for the combined surveys is included in the following analyses (see also chapter X for a discussion of the regional representativeness of the estimates).

The following charts detail the prevalence rates for each country in the MENA region and for all countries combined. Examining the prevalence rates broken down by country, we can see that indeed the use of violent discipline varies quite significantly among the countries. For example, in the majority of countries more than 80% of children have experienced any violent discipline in the past month.

Exceptions, however, are Djibouti, Lebanon, Qatar, and Sudan, where these rates are below 70 per cent. In Qatar the prevalence rate is around 50 per cent, the lowest in all countries in the study.<sup>15</sup>

Broken down by types of violent discipline, we can observe similar prevalence rates for psychological aggression (except for the four countries mentioned above).

In most countries, more than 65 per cent of all children aged 2-14 have been subjected to physical punishment. Looking only at the prevalence rates for severe physical punishment, we can observe a wide range: in countries like Egypt and Yemen 40 per cent of children experienced this type of behaviour, whereas in the majority of countries the rates are around 20-35 per cent. Lebanon, Qatar, and Sudan are exceptions here with prevalence rates below 15 per cent.

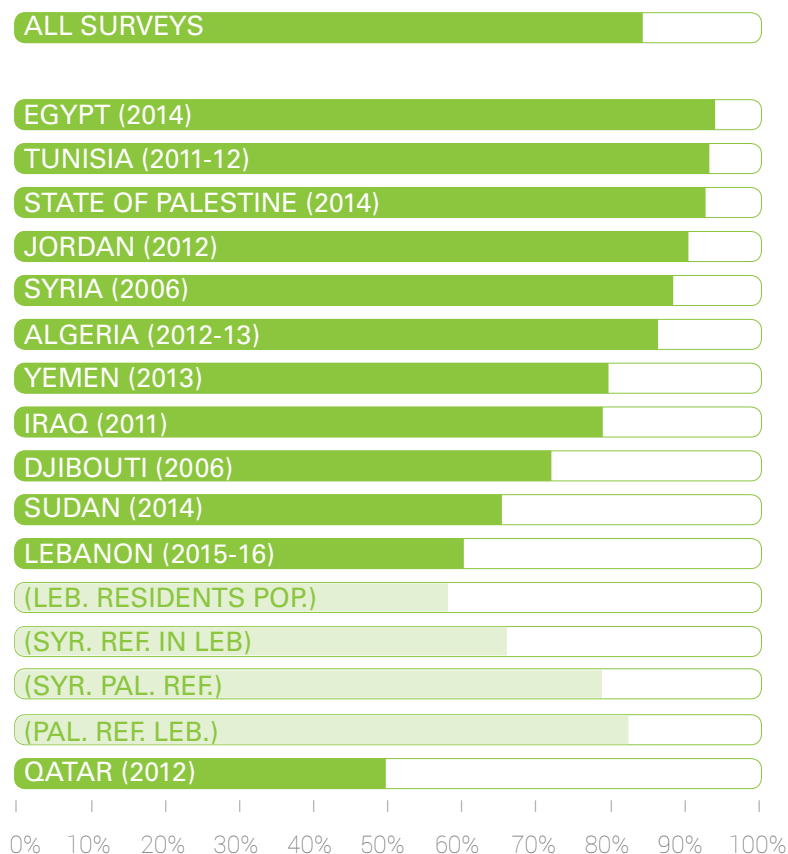
Another interesting finding concerns the different prevalence rates for the sub-populations for which data is available in Lebanon. It appears that violent discipline is less common among native Lebanese households compared to the different refugee groups. Especially among Palestine refugees from Syria in Lebanon and Palestine refugees in Lebanon prevalence rates for psychological aggression and physical punishment are higher compared to other groups.

<sup>15</sup> As indicated in section IV, these comparisons should be read with caution as the different behaviours measured in a slightly different way across the different countries.

**Figure 8:** Prevalence: Any violent discipline (children aged 2-14)

- Country results
- Sub-population Lebanon

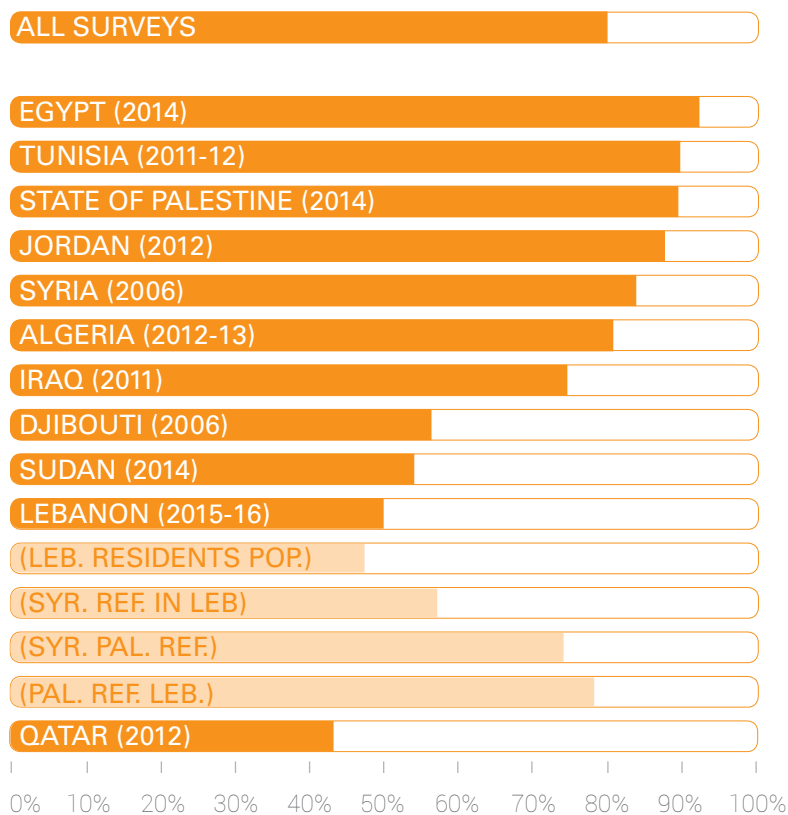
n=126,511



**Figure 9:** Prevalence: Psychological aggression (children aged 2-14)

- Country results
- Sub-population Lebanon

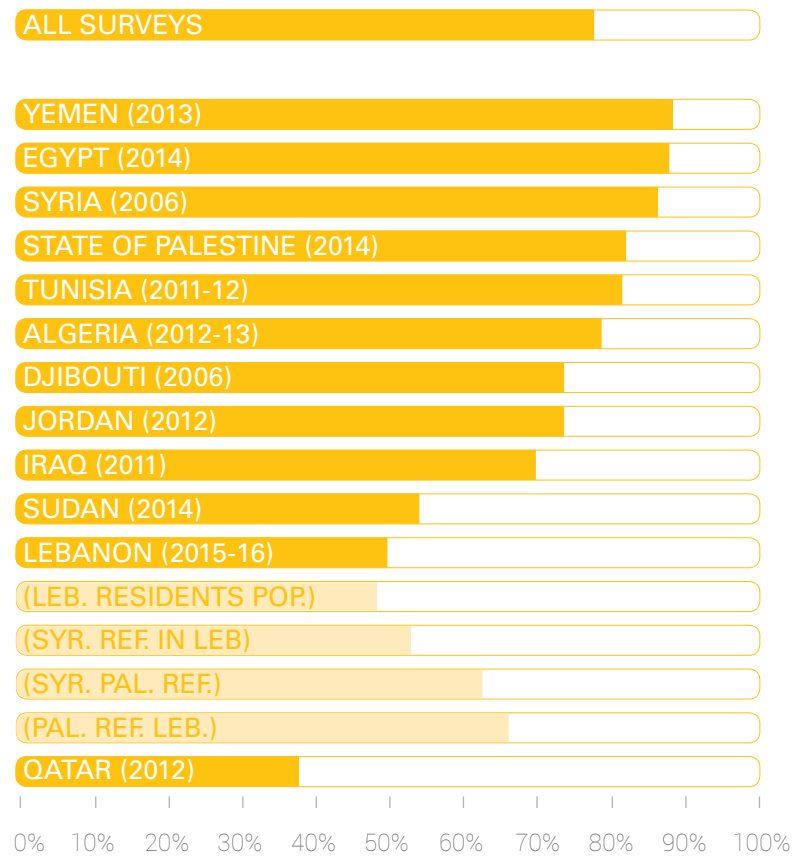
n=113,140 (all countries excluding Yemen)



**Figure 10: Prevalence:**  
Physical punishment (incl. severe), (children aged 2-14)

- Country results
- Sub-population Lebanon

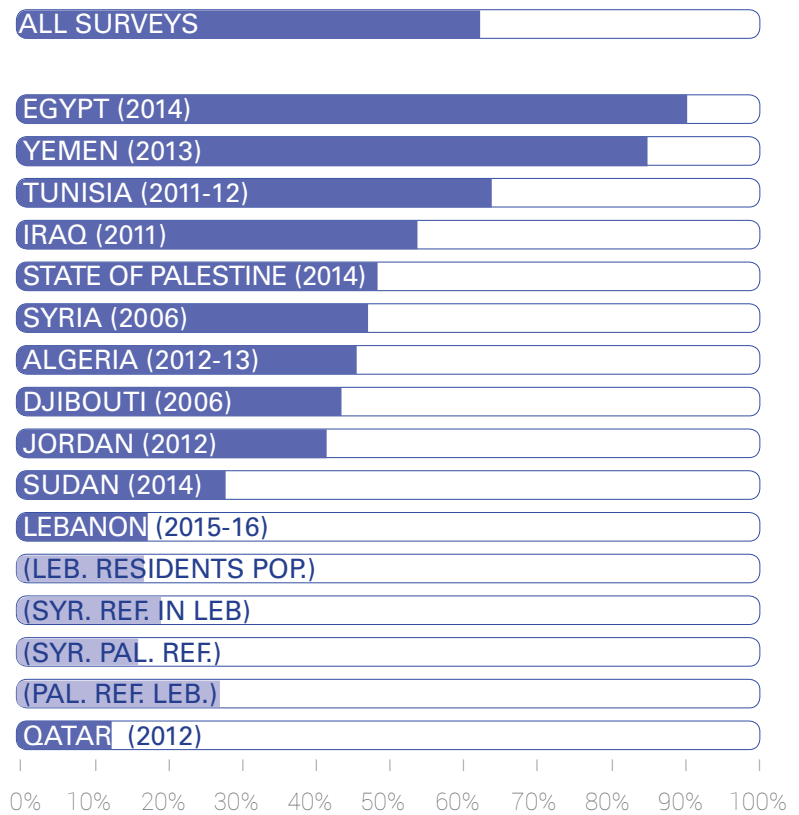
n=126,511



**Figure 11: Prevalence:**  
Severe physical punishment (children aged 2-14)

- Country results
- Sub-population Lebanon

n=126,511



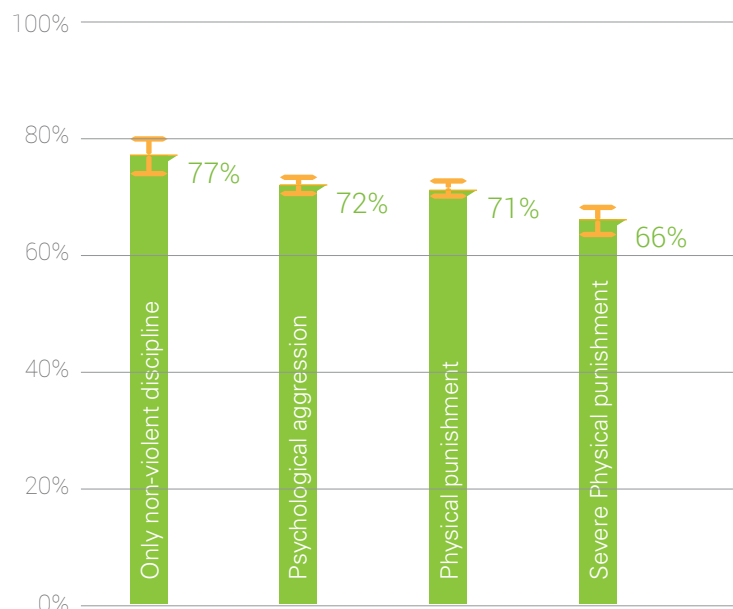
# VI. 1 ASSOCIATIONS BETWEEN VIOLENT CHILD DISCIPLINE AND EARLY CHILDHOOD DEVELOPMENT

Six surveys in the region also measured early childhood development through a dedicated module targeted at children aged 36 to 59 months.<sup>16 17</sup>

To understand the effects of violent discipline on child development, we used the data from this module (where available) and compared it with the type of child discipline the child was subjected to in the last month.

Examining the overall percentage of children, who are on track in at least three of the dimensions broken down by the type of child discipline they were subjected to in the last month, we can see a strong contrast between those, who have not experienced violent discipline and those, who have: around three out of four children (77 per cent), who have only experienced non-violent discipline are developmentally on track – as compared to 72 per cent, who have experienced psychological aggression or 66 per cent of children, who have experienced severe physical punishment in the last month.

**Figure 12:** Percentage of children aged 36-59 months overall on track in early childhood development by type of child discipline



P value for all sub tables  $p < .005$ .  
 Difference between findings for “non-violent discipline” and severe physical punishment are statistically significant at  $p < .05$ .

$n=10,423$ ; data only available for Algeria ( $n=2,773$ ), Iraq ( $n=5,001$ ), Jordan ( $n=592$ ), Qatar ( $n=345$ ), State of Palestine ( $n=1,086$ ), Tunisia ( $n=626$ ).

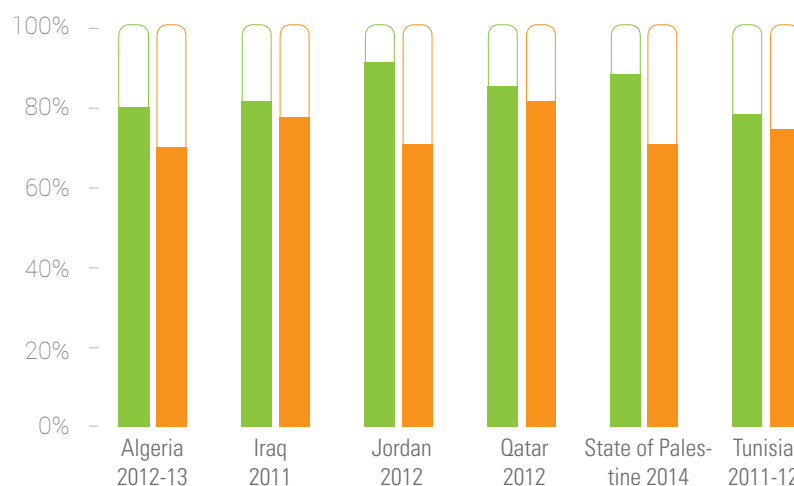
Despite the gradient, this data does not suffice to claim a clear causation that violent discipline leads to developmental problems: it is quite possible that some parents react towards (perceived) delayed cognitive or social development using violent discipline.

Figure 13 focuses only on the percentage of children, who are developmentally on track in the socio-emotional dimension of early childhood development and the type of discipline they have experienced, disaggregated by country. This analysis again underlines that children, who have only experienced non-violent discipline reveal better developmental records than children, who have experienced physical punishment.

16 This module was included in the following surveys: Algeria (2012), Iraq (2011), Jordan (2012), Qatar (2011), State of Palestine (2014), Tunisia (2012).  
 17 Details on the module and the measurement can be found in the Annex XI.3

**Figure 13:** Percentage of children aged 36 to 59 months who are on track in social-emotional development milestones, by experience of physical punishment in the past month

■ Non-violent discipline only  
 ■ Physical punishment



n=10,423; data only available for Algeria (n=2,773), Iraq (n=5,001), Jordan (n=592), Qatar (n=345), State of Palestine (n=1,086), Tunisia (n=626).

These findings can be a first step to illustrate the harmful impact of violent child discipline, especially when we directly compare children, who have experienced non-violent discipline with those, who have suffered from severe physical punishment.

Focusing on the type of child discipline children between 36-59 months were subjected to in the last month, we observe statistically significant differences between children who have received non-violent and violent discipline.

**Table 3:** Percentage of children aged 36-59 months on track in early childhood development dimensions by type of child discipline

% of children aged 36-59 months developmentally on track				
TYPE OF DISCIPLINE	ECD: Literacy-numeracy	ECD: Physical	ECD: Social-Emotional	ECD: Learning
<b>Only non-violent discipline</b>	<b>27%</b>	<b>97%</b>	<b>81%</b>	<b>91%</b>
Psychological aggression	24%	96%	73%	91%
Physical punishment	24%	96%	72%	91%
Severe physical punishment	23%	95%	66%	90%
n	10,423	10,423	10,423	10,423

All Chi-Squared tests are significant at the .000 level (2-tailed).

n=10,423; data only available for Algeria (n=2,773), Iraq (n=5,001), Jordan (n=592), Qatar (n=345), State of Palestine (n=1,086), Tunisia (n=626).

Table 3 shows that children who have not experienced any form of violent discipline rank highest in all four dimensions, whereas children, who have experienced severe physical punishment always have the lowest rank.

However, the largest differences can be observed in the Social-Emotional dimension: 81 per cent of children who have not experienced violent discipline are on track, in contrast to 66 per cent of children, who have experienced severe physical punishment.

To further explore the associations between child development and child discipline, Figure 13 below analyses the percentage of respondents, who answered “yes” for the ten behaviours enquired in the ECD survey module by type of discipline their children were subjected to.

Forty two per cent of children, who experienced severe physical punishment were also reported to kick, bite or hit other children – and 61 per cent of them were reported to be sometimes too sick to play. However, children who did not experience any violent discipline only 22 per cent and 50 per cent were reported to kick, bite or hit other children and too sick to play, respectively. These findings are statistically significant on the 95 per cent level ( $p=.000$ ).

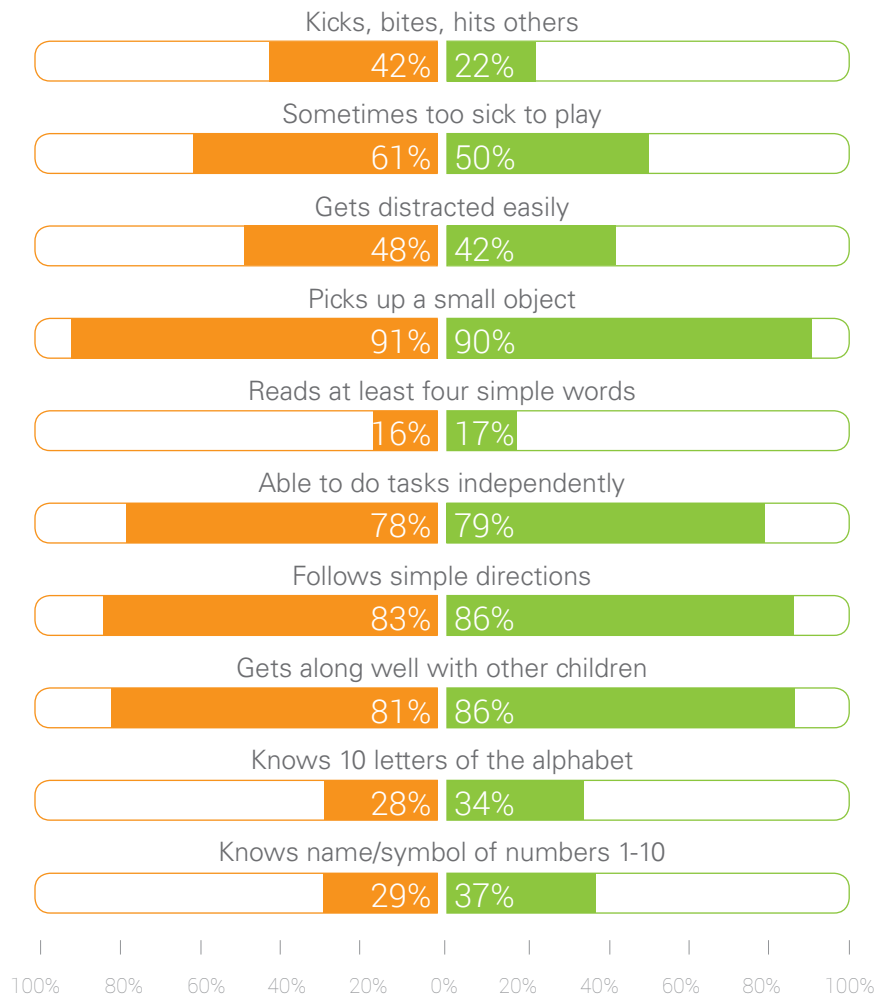
Interestingly, children, who experience psychological aggression have almost the same outcomes as children, who experienced physical punishment (excluding severe): most of the time the estimates are very similar (finding not shown in chart for clarity). It is also interesting that these behaviours seem to be situated in the middle between the two extremes (no violent behaviour and severe physical punishment).

Children, who do not experience violent discipline also appear to get better along with other children, and also appear to have slightly better learning outcomes (improved recognition of letters and numbers). These findings are, however, not statistically significant.

**Figure 14:** Percentage of children aged 36-59 months with the following early childhood development characteristics by type of child discipline

■ Non-violent discipline  
 ■ Severe Physical Punishment

n=10,423; data only available for 3-4-year olds in Algeria (n=2,773), Iraq (n=5,001), Jordan (n=592), Qatar (n=345), State of Palestine (n=1,086), Tunisia (n=626).



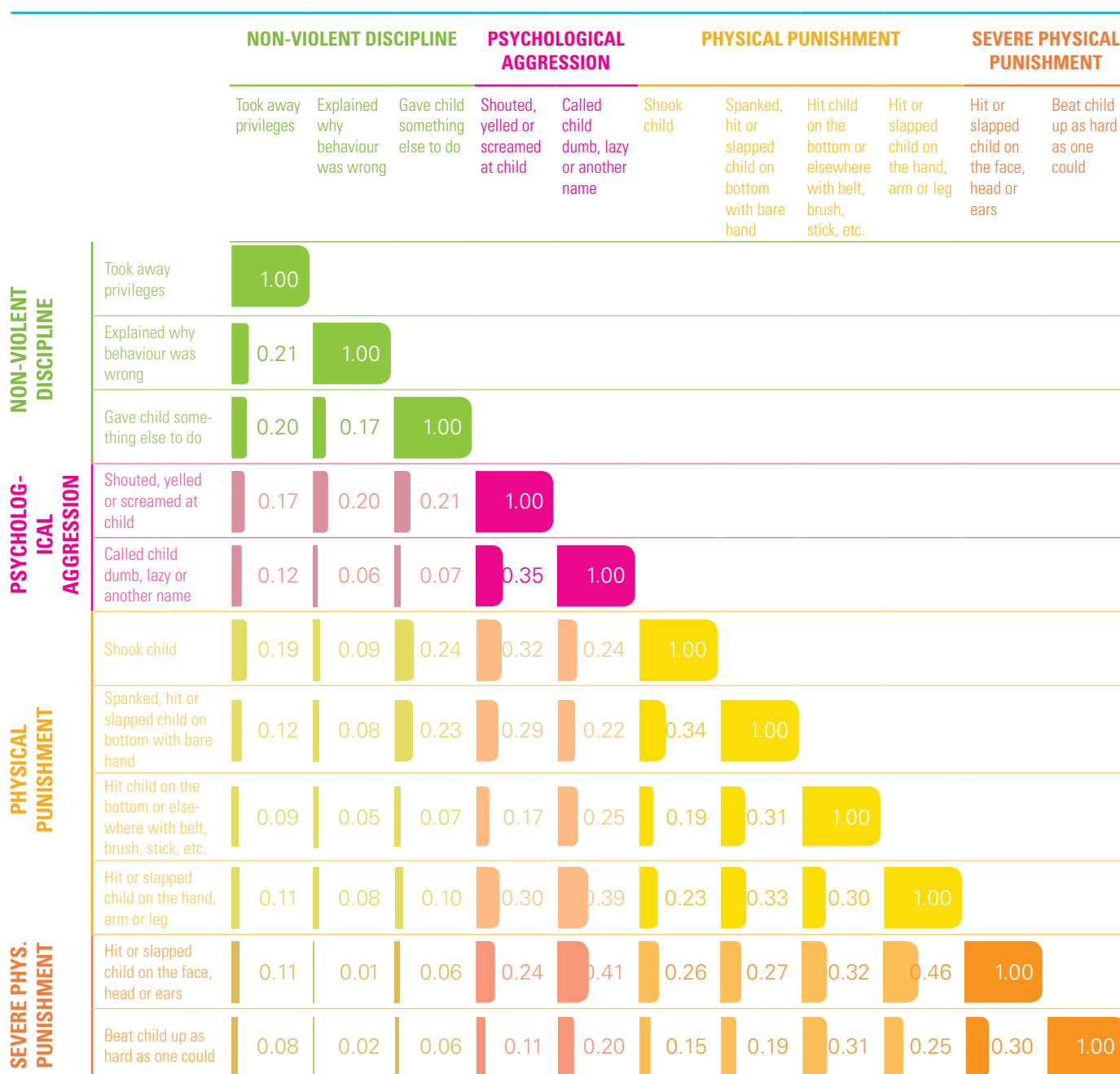
## VI.2 RELATION BETWEEN VIOLENT DISCIPLINARY BEHAVIOURS

To understand the relation between the three types of violent discipline, the measures of association (Cramer's V) were calculated for the different child discipline behaviours. Figure 15 below displays the correlations between the 11 different disciplinary behaviours assessed in the surveys. We can see that most correlations are indeed very weak (below .2).

Some behaviours have a slightly stronger correlation with others: "shouting, yelling or screaming" correlates with "shaking the child" (.32), and "calling the child dumb, lazy or another name" actually correlates with two behaviours defined as physical punishment: hitting and slapping the child on "the hand, arm or leg" (.39) and "on the face, head or ears" (.41).

The strongest correlation of all behaviours appears to be "hitting or slapping the child on hand, arm or leg"; and the severe "hitting or slapping the child on the face, head or ears".

**Figure 15:** Associations among the disciplinary behaviours



n=126,511, items on psychological aggression exclude Yemen: n=113,140  
All correlations are significant at the 0.01 level (2-tailed).

In the following step, we are examining the correlations between the types of child discipline as defined by UNICEF.

Looking at how the types of behaviour relate to each other, we calculated the correlations for the following behaviours:

- Child experienced psychological aggression
- Child experienced physical punishment (excluding severe physical punishment)<sup>18</sup>
- Child experienced severe physical punishment

**Table 4: Correlations between types of violent discipline**

	Psychological aggression	Physical punishment (excluding severe)	Severe physical punishment
Psychological aggression	1		
Physical punishment (excluding severe)	.482 <sup>#</sup>	1	
Severe physical punishment	.276 <sup>#</sup>	.381 <sup>+</sup>	1

#n=113,140 (all countries excluding Yemen), +n=126,511 (all countries)  
 All correlations are statistically significant at the 0.01 level (2-tailed).

The analysis shows that there is a moderate association (.482) between psychological aggression and physical punishment: this means that these two types of discipline seem to be connected to each other. The association between physical punishment (excluding severe) and severe physical punishment is of similar strength (.381) – again suggesting that in some cases severe and non-severe physical punishment practices appear together.

At the same time, the association between psychological aggression and severe punishment is considerably lower (.276).

18 For this sub-analysis we have temporarily departed from UNICEF’s standard definition that considers all types of physical punishment, regardless of severity, as physical punishment. For the following analysis we differentiate the behaviours better by defining those children, who have experienced the following behaviours as physical punishment (excluding severe): “Shook child”, “Spanked, hit or slapped child on bottom with bare hand”, “Hit child on the bottom or elsewhere with belt, brush, stick, etc” or “Hit or slapped child on the hand, arm or leg.”



## VI. 3 PERCEPTION OF INDIVIDUAL BEHAVIOURS

In a final analysis on the child discipline behaviours, we tried to understand in how far they follow a latent structure or internal logic for the respondents. For this we have conducted a Principal Component Analysis that yielded two different factors or “latent variables”

The chart below shows the correlations for the different disciplinary behaviours and the respective factors.

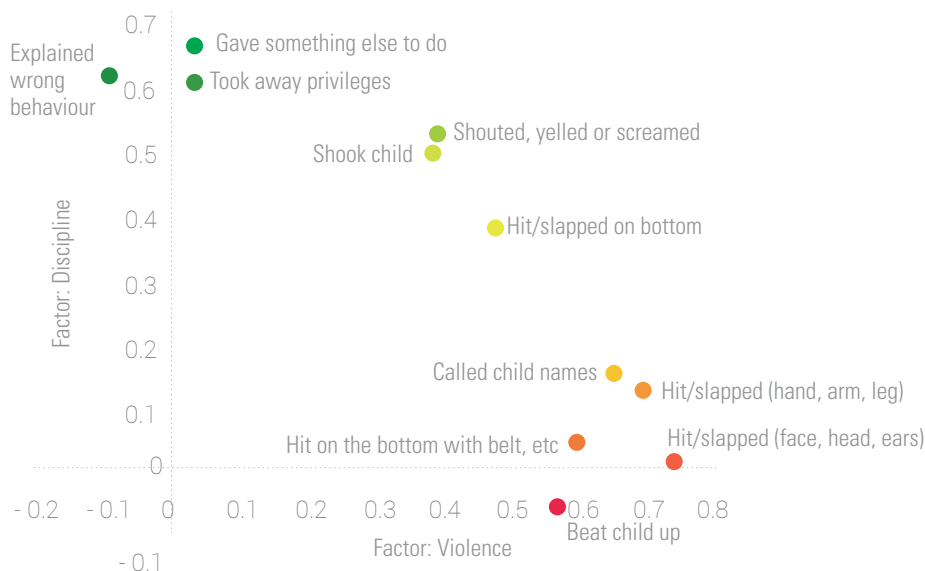
**Figure 16: Perceptions of Child disciplinary behaviours (Factor Loading on two main factors after Varimax rotation)**

n=113,140 (all countries excluding Yemen)

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization, converged in 3 iterations.

Difference in colours refers to violence in the disciplinary behaviours. From green “non violent” to red “most violent”.



The variables with the highest scores along the horizontal x-axis resonate strongly with behaviours associated with physical punishment and verbally abusing the child (with “Child hit or slapped on the face, head or ears” being correlated strongest to this factor). We can therefore conclude that this factor represents behaviours that respondents consider to be “violent”.

Behaviours that score highest on the vertical y-axis are non-violent disciplinary behaviours (“gave child something else to do”); therefore, we can name this factor “discipline”.

The behaviour “explained child why behaviour was wrong” is very strongly associated with disciplining a child, whereas it is negatively associated with violence. On the other end of the spectrum, “beating up” a child is considered to be not associated with discipline (negative correlation with the factor) but is rather a violent behaviour.

However, although we are looking at a rotated solution of the factor analysis, curiously a number of behaviours share characteristics of both factors: these are behaviours such as “shouting, yelling or screaming”, “shaking” or “spanking, hitting or slapping the child on the bottom with a bare hand”. This could be a hint that according to the respondent these behaviours – while “somewhat violent”, are also associated with other forms of child discipline.

For example, one parent might consider hitting or slapping a child in the face a rather violent behaviour – and not a disciplinary measure. At the same time, “shouting”, “shaking”, or “explaining the child what s/he has done wrong” would be in acceptable, as they load higher on the factor “discipline”.

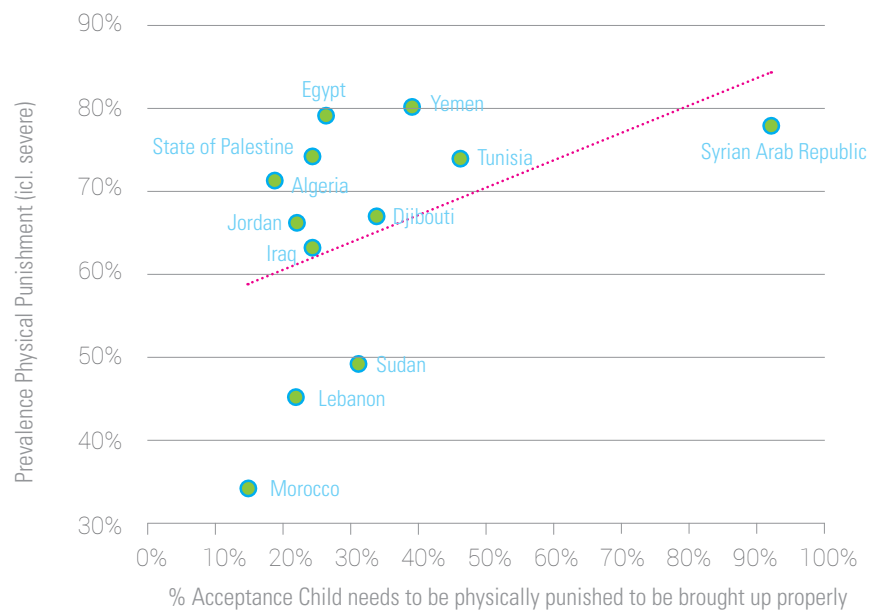
## VI. 4 ATTITUDES TOWARDS PHYSICAL PUNISHMENT

As mentioned in the theoretical framework above, some authors have suggested that violence against children and, by association, violent discipline is driven by the attitude that physical punishment is “beneficial” for the child. To explore this notion, we plotted the prevalence of physical punishment (including severe) against the percentage of respondents, who support the statement “Child needs to be physically punished to be brought up properly”.<sup>19</sup>

Figure 16 shows that while there is a correlation (.44,  $p=.152$ <sup>20</sup>) between the two variables, it does not completely explain the level of physical punishment. For example, in most countries in MENA<sup>21</sup>, the acceptance rate of the statement is below 45 per cent, yet for the majority of countries the acceptance rate exceeds 60 per cent. A clear example that the attitudes and behaviours do not go hand in hand can be found in Algeria, where 19 per cent of respondents support physical punishment, yet 71 per cent of children experienced it in the last month.

**Figure 17:** Attitudes towards physical punishment vs. prevalence of physical punishment

n=126,511



19 It needs to be considered that in the MICS and DHS surveys, the respondent to the child discipline module is not necessarily responsible for disciplining children in the household. While questions about disciplinary practices reflect their actual use in the household (regardless of the person administering them), the respondent to the question about attitudes merely shares his or her personal opinion on child discipline. As a consequence this means that there is a probability that the respondents' attitudes do not necessarily overlap with the behaviours observed in the household.

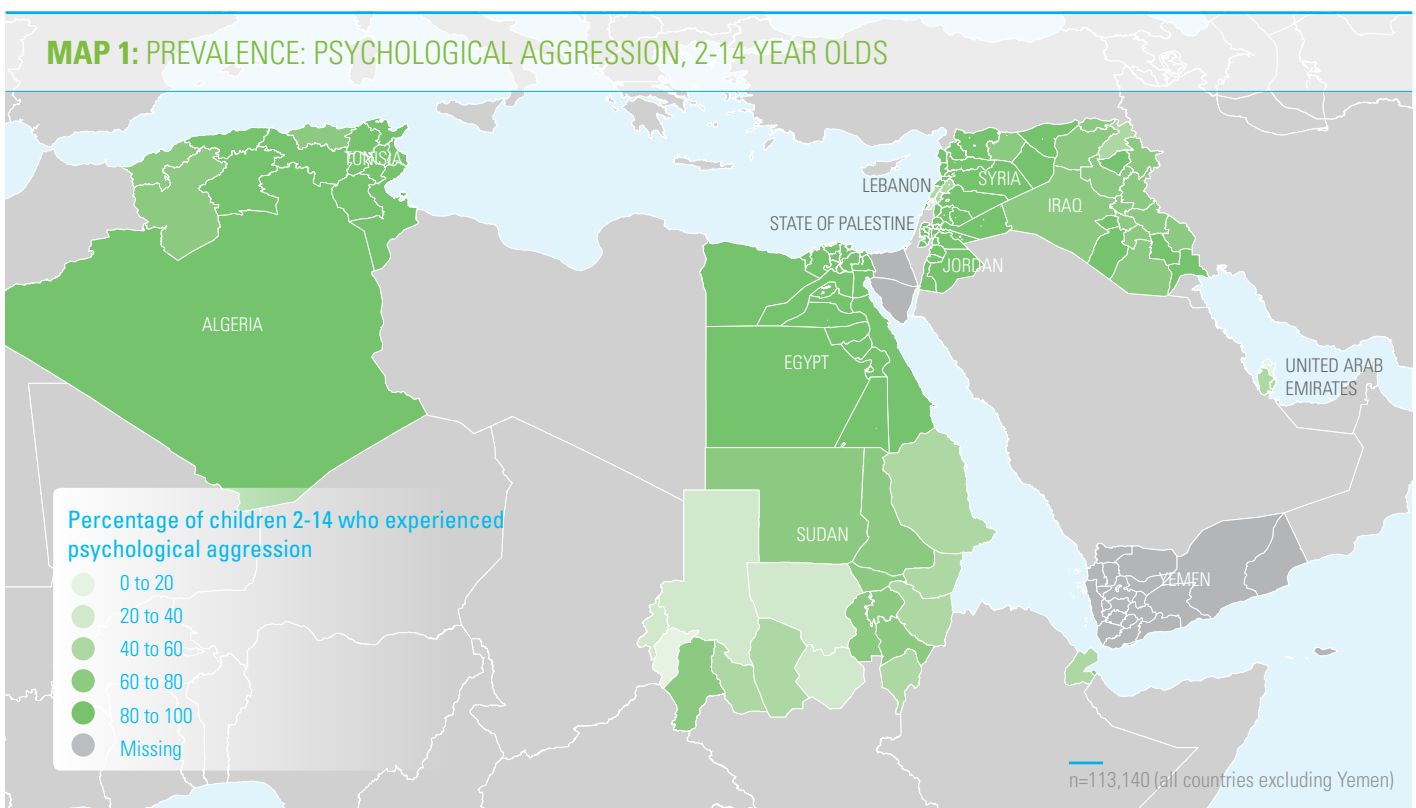
20 p-value = 0.1519; 95% CI [-0.1786446; 0.8096666]

21 A clear outlier is Syria, where we can see that 92% of all respondents believe that physical punishment is “needed for a child to grow up properly”. Removing Syria from this analysis, however, does only marginally change the results (Pearson's correlation coefficient = .478, p-value = 0.1369, 95% CI [-0.1706859; 0.8377355])

## VI. 5 THE ROLE OF LOCAL COMMUNITIES AND TRADITIONS

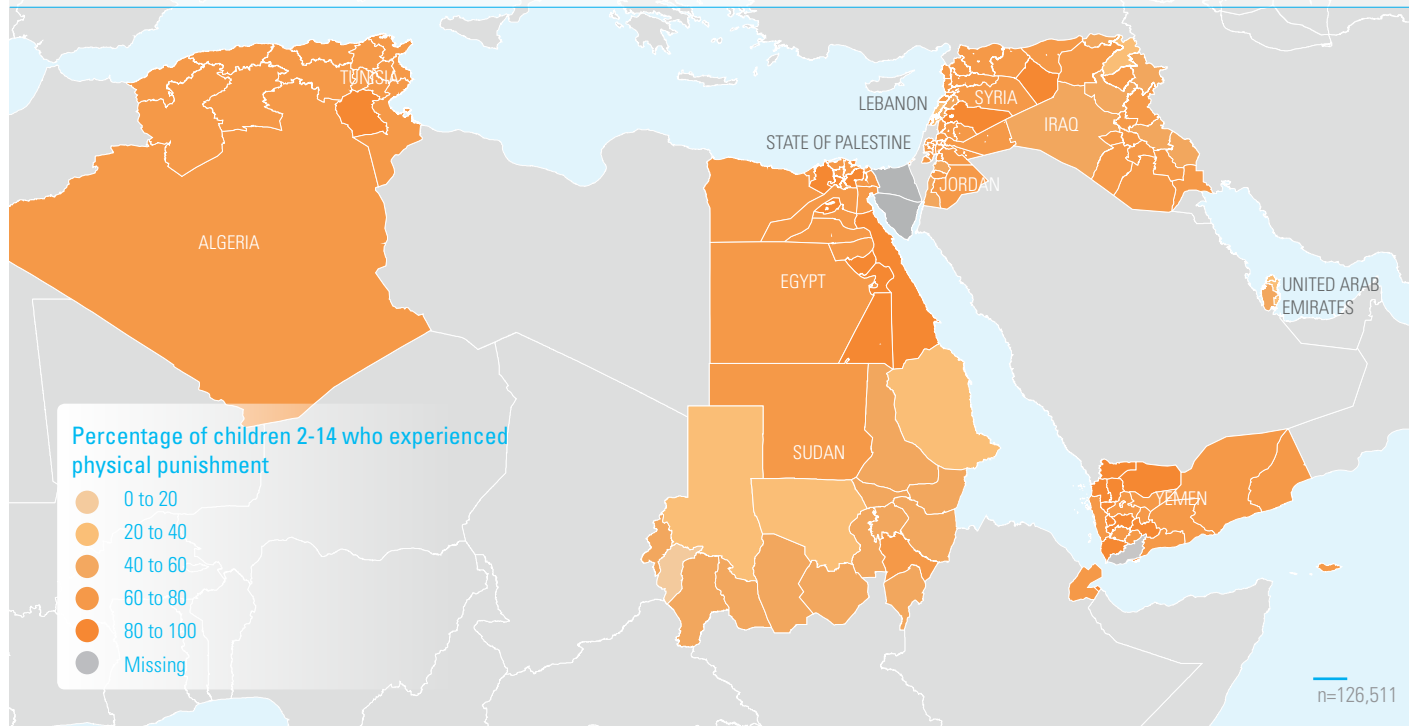
Our previous results showed, that concentrating on national-level data only yielded limited insights. For example, when we observed the relation between the Human Development Index and the prevalence for violent discipline in the MENA region, we found that they seem to be positively correlated to each other, suggesting that a higher score on the HDI would go hand in hand with a higher rate of prevalence. As these findings appear to be counterintuitive, we took a step back and started to explore the influence of communities (in this case sub-regional entities) on individual behaviour. Do individuals in the same communities act similarly because of the local proximity or other cultural proximities?

To explore this question, we conducted a series of statistical analyses to uncover patterns that might point to a geographical proximity. One feature of using the individual level data provided by the MICS and DHS is that in these surveys, data is collected (and reported) on sub-national levels, such as governorates. While the tables can provide us a good overview of the estimates, we also prepared a number of maps, in which we colour-coded the prevalence of different types of child discipline. These maps suggest that prevalence rates differ to some degree among these subnational entities. For example, hotspots for severe physical punishment can be observed in Western Tunisia or northern Yemen. There are other areas, however, such as in Sudan's Central Darfur, where violent practices are lowest throughout the available datasets, which suggests the existence of differences in local customs, traditions or social norms that have an impact on child disciplinary practices.



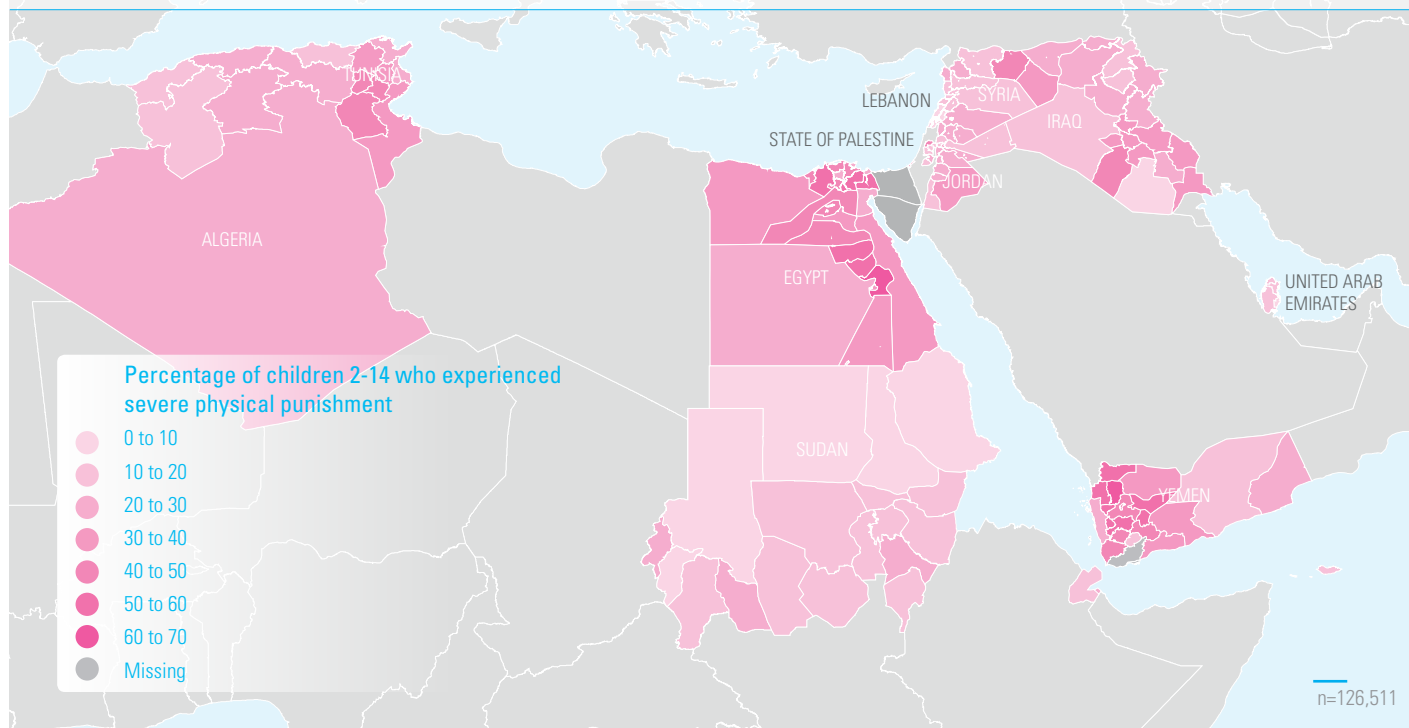
The maps do not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers.

**MAP 2: PREVALENCE: PHYSICAL PUNISHMENT (INCLUDING SEVERE), 2-14 YEAR OLDS**



The maps do not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers.

**MAP 3: PREVALENCE: SEVERE PHYSICAL PUNISHMENT, 2-14 YEAR OLDS**



The maps do not reflect a position by UNICEF on the legal status of any country or territory or the delimitation of any frontiers.

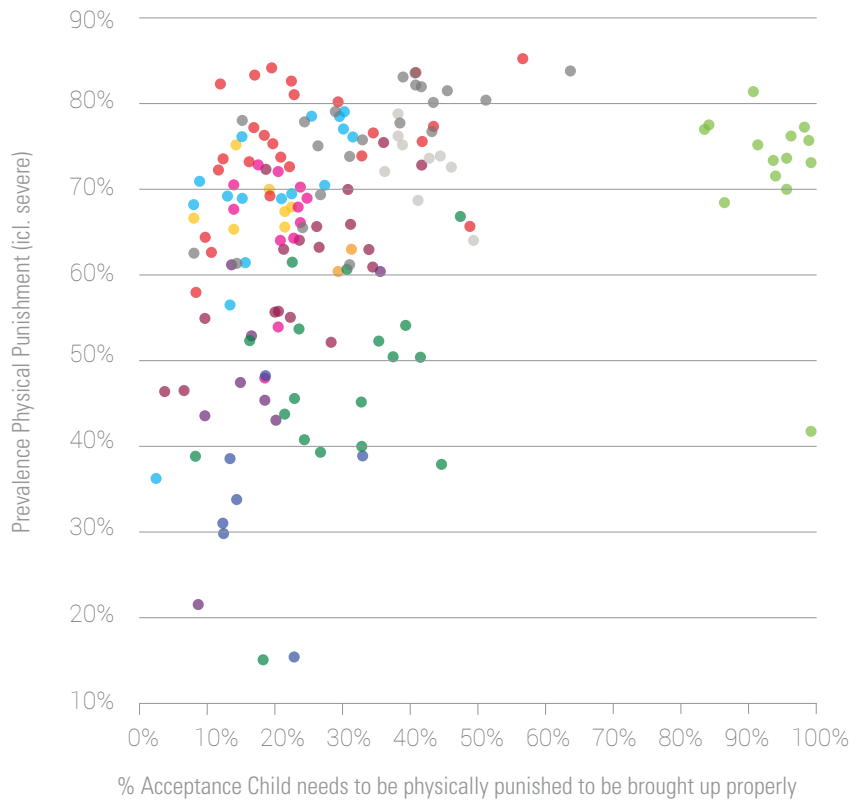
Exploring the relation between attitudes towards physical punishment and the actual prevalence in the last 30 days – this time by sub-national entities – we observe the following: prevalence and attitudes vary to quite some degree amongst sub-national entities. For example, the Sudanese Central Darfur region entails the lowest results for the combination of both attitudes and practices for physical punishment in the entire dataset – in other areas of Sudan both are significantly higher.

The State of Palestine shows similar disparities between governorates: in the majority of governorates we observe prevalence rates around 70 per cent and positive attitudes towards physical punishment in the range of 15-25 per cent. Still, we observe outliers from the general trend, like the Jericho and Al Aghwar region, where both support for physical punishment and practice are lowest (2 per cent and 36 per cent, respectively).

**Figure 18:** Attitudes towards physical punishment vs. prevalence of physical punishment (by sub-national entity)

- Algeria (2012)
- Djibouti (2006)
- Egypt (2014)
- Iraq (2011)
- Jordan (2012)
- Lebanon (2016)
- Qatar (2011)
- State of Palestine (2014)
- Sudan (2014)
- Syria (2006)
- Tunisia (2012)
- Yemen (2013)

n=126,511



The figure above shows evidence of some country-level clustering (i.e. the governorates in Egypt or Syria are mostly located very close to each other). While prevalence rates for most sub-national entities in the same country are mostly similar, the attitudes towards physical punishment sometimes differ considerably. Examples for this are the sub-national entities in Yemen, where in the majority of prevalence rates for physical punishment are around 75-80 per cent, while the range of positive attitudes towards physical punishment in the same entities is between 20 and 50 per cent (in Egypt, the respective ranges are 40-50 per cent for prevalence and 20-40 per cent for attitudes).

However, it is also interesting to see that in most countries outliers can be observed – these are entities where attitudes, practices or both significantly deviate from the majority of sub-national entities in the same country. This again underlines the importance of sub-national analyses to identify certain “pockets” where attitudes or practices differ significantly from other areas.





# VI RISK AND PROTECTIVE FACTORS

The previous chapters explored the prevalence of violent child discipline from a macro and aggregated level. This chapter intends to provide better understanding of individual and societal factors that might put children at an elevated risk of – or protect them from – violent discipline. In the following we will therefore propose and describe a more comprehensive model at the individual and sub-national level.

## VII. 1 THEORETICAL FRAMEWORK

Since the 1960s, a number of theories on human behaviour and more specifically on the origins of interpersonal violence have emerged. These theories strive to identify the predictors, risk factors and outcomes of violence in general – and VAC or violent discipline more specifically.

The most important ones are (ordered by year of origin): the social learning theory (Bandura, 1977), family systems theory (Bowen, 1978), inequality theory (Iadicola and Shupe, 1998), and ecological systems approach (WHO, 2011).

However, since 2002, the predominant model to research and subsequently strive to prevent violence is based on the ecological model. This model has been adopted by agencies such as CDC (Centers for Disease Control and Prevention, no date), UNICEF (UNICEF, 2015), and the World Health Organization (WHO, 2011). It marks a departure from thinking that a very limited number of predictors can explain a certain outcome to a more complex understanding of human interaction and behaviour.

Because of its prominence as well as its clear focus on different layers of society that influence each other when it comes to shaping behaviours, it served as the key framework for this research: the main risk factors that were identified from the social learning theory can be found on the individual layer, the relations layer recognizes the family systems theory, whereas the societal risk factors mirror the inequality theory.

## VII. 2 OPERATIONALIZATION

As a starting point of this study, we collected risk factors that have been identified through the literature review (Straus and Gelles, 1986; Krug et al., 2002; Sethi et al., 2004; Lambert et al., 2005; Mercy et al., 2008; Wareham, Boots and Chavez, 2009; Akmatov, 2011; WHO, 2011; United Nations Children’s Fund, 2014; UNICEF, 2015; Maternowska, Potts and Fry, 2016; Peterman et al., 2017; Sachs-Ericsson et al., 2017; CDC, 2018).

The table below summarizes what appears to be the main risk factors identified according to the respective layers of the ecological model.

It should be noted that currently available data on child discipline is based on multi-purpose survey. Thus, not all risk factors could be matched to existing variables. The below table shows all risk factors where variables could be matched based on the variable in the MICS and DHS. The full table can be found in the Annex (section XII.1).

**Table 5: Risk factors and data sources**

LAYER (ECOLOGICAL FRAMEWORK)	DATA SOURCE
<b>INDIVIDUAL</b>	
Sex (of child)	<ul style="list-style-type: none"> <li>Child’s biological sex (*)</li> </ul>
Child is a school dropout	<ul style="list-style-type: none"> <li>Has the child dropped out from school before age 14 (*)</li> </ul>
Vulnerability due to age	<ul style="list-style-type: none"> <li>Child’s age (*)</li> </ul>
Child suffers from serious deprivations	<ul style="list-style-type: none"> <li>Number of serious deprivations child suffers from (as defined by MODA<sup>18</sup>) (*)</li> </ul>
Parent’s biological sex	<ul style="list-style-type: none"> <li>Proxy: Respondent’s biological sex (*)<sup>19</sup></li> </ul>
Parents’ education	<ul style="list-style-type: none"> <li>Proxy: Respondent’s education level (*)</li> </ul>
Beliefs about gender roles or the acceptability of punishment and violence	<ul style="list-style-type: none"> <li>Proxy: Adult respondent’s attitudes towards physical punishment (*)</li> <li>Proxy: Adult female respondents’ attitudes towards justification of domestic violence against women (*)</li> </ul>
<b>RELATIONS</b>	
Family stress: poverty	<ul style="list-style-type: none"> <li>Proxy for poverty: first two wealth quintiles (*)</li> </ul>
Family structure	<ul style="list-style-type: none"> <li>Proxy: Total number of children below age 18 in household(*)</li> </ul>
Double-orphan	<ul style="list-style-type: none"> <li>Orphan status of child (*)</li> </ul>
<b>COMMUNITY</b>	
Rural or urban location	<ul style="list-style-type: none"> <li>Locality of interview (rural/urban)(*)</li> </ul>

(\*) Indicator available “as is” from datasets

(\*\*) Indicator was constructed from available variables in datasets

22 UNICEF’S MODA approach is briefly introduced in the Annex

23 The questions on child discipline are located within the household questionnaire, which is administered to one adult member of the household willing to answer it. This person is not necessarily the parent or childrens’ caregiver, but could also be an adult sibling, uncle or other household member. However, as we receive all discipline-related information on practices and attitudes from this person, we use his/her demographic data as a proxy for the parents here.



## VII. 3 DESCRIPTIVE OVERVIEW OF RISK AND PROTECTIVE FACTORS

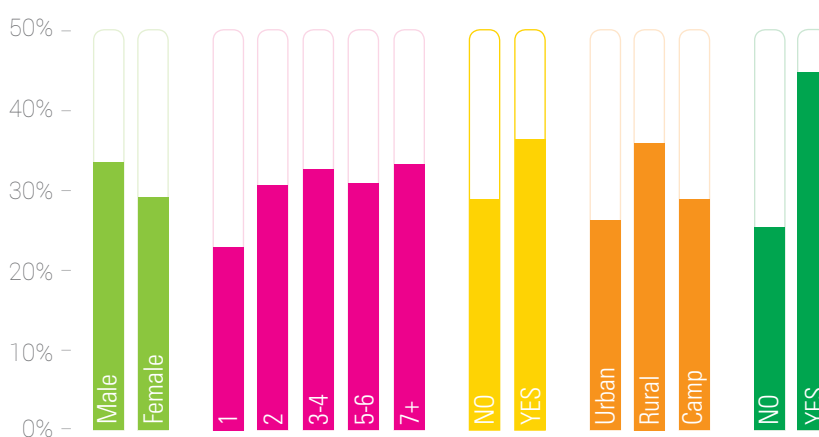
To obtain a better understanding of the risk and protective factors, we developed a cross-tabulation of all types of violent child discipline and the respective factors (due to the size of this analysis, the table can be found in the Annex: XII.10<sup>24</sup>).

Figure 18 illustrates what appear to be the most influential factors related to severe physical punishment, the most severe form of child discipline. The analysis suggests an association between the household's wealth (the prevalence is higher in the poorer 40 per cent of all households), locality (higher prevalence in rural households), the number of children in the household (the more children, the higher the prevalence), sex (boys are more at risk than girls), or the belief that children need to be physically punished to grow up properly.

**Figure 19:** Prevalence: Severe physical punishment by predictor variables

- Biological sex of child
- # of children (grouped)
- Belongs to poorest 40%
- Locality (urban/rural)
- Child needs to be physically punished to be brought up properly

n=126,511



At the same time, we can assume that some of these variables are most likely to be correlated, i.e. poverty and locality. That means that focusing on descriptive measures of associations might lead us astray as we might encounter confounding factors that we need to control for.

24 The consultants also produced similar tables for each country. However, to keep this analysis focused on the main drivers in the region, these detailed tables are not discussed in this report and are merely included for further exploration of the data by the country offices.

## VII. 4 HIERARCHICAL LOGISTIC REGRESSION MODEL

To understand the relative influence of each risk factor on violent child discipline – while controlling for all other factors – we conducted a series of Hierarchical Logistic Regression Models (HLM). This type of model is an advancement of the standard Logistic Regression, as it is able to factor in the situation in the different sub-national entities into the analysis.

Like Logistic Regressions, Hierarchical Logistical Models require a binary coded variable (0/1) as the outcome variable, in this case children, who have experienced a certain disciplinary behaviour (1) or not (0).

While it would be interesting to research children, who have not experienced any violent discipline, their rate was quite low: in half of all countries the prevalence rate for this behaviour was below 10 per cent. This means that most likely there is not enough variance in the dataset to yield any meaningful data. At the other end of the spectrum are children, who experienced “any” violent discipline. We already saw that here the prevalence rates are also very high in most countries – again, it can be assumed that it does not leave enough variance to run analyses. At the same time, severe physical punishment is the most extreme form of child discipline. We also saw interesting variances in prevalence and thus variance between the countries and the sub-national entities. After running the models for both types of violent child discipline, we found that the results are very similar.<sup>25</sup> For the sake of clarity, therefore, we will only present the findings for severe physical punishment.

For this analysis the following risk factors variables were fed into the HLM. To understand the effect of the sub-national entity, we included the sub-national area as a random component. Because not all variables are available for all countries, we ran a total of three models: the first, the “common model” describes only the predictor variables that are available in all datasets.

The second model adds the risk factor “Number of severe deprivations (according to MODA)”. It excludes Djibouti, Qatar, and Syria from the analysis as this information is not available for these countries.

The third model adds the risk factor “Households, in which adult female respondents believe that domestic violence against women can be justified” to the model. For this analysis data is only available for Algeria, Egypt, Iraq, Jordan, Qatar, Sudan, Tunisia, and Yemen. While this is effectively the least stable of models, we ran it to observe the effect of attitudes towards domestic violence against women on violent discipline.

**Table 6: Summary of predictors in the HLM**

COMMON MODEL	
Sex (of child)	• Child’s biological sex
Vulnerability due to age	• Child’s age
School dropout	• Has the child dropped out from school prematurely?
Parent’s biological sex	• Respondent’s biological sex
Parents’ education	• Respondent’s highest type of school completed
Beliefs about gender roles or the acceptability of punishment and violence	• Adult respondent’s attitudes towards physical punishment
Family structure	• Total number of children below age 18 in household (grouped)
Orphanhood	• Is child an orphan?
Rural or urban location <sup>22</sup>	• Locality of interview (rural/urban)
MODEL 2:	
Child suffers from serious deprivations	• Number of severe deprivations child suffers from (as defined by MODA)
MODEL 3:	
Beliefs about gender roles or the acceptability of punishment and violence	• Households, in which at least one adult female respondent believes that domestic violence against women can be justified (yes / no)

<sup>25</sup> A difference between the two models is that a low respondent’s education is a risk factor for severe physical punishment, while this is not the case for “psychological abuse”.

<sup>26</sup> In the framework, this variable actually belongs to the “community” layer. As it is available in the MICS/DHS individual level datasets and thus offers the highest level of detail, it is also included in this analysis

## VII. 4. 1 MODEL 1: THE COMMON MODEL

The risk factors contributing to severe physical punishment are shown in the first model in Table 7 and reveal that the odds of becoming a victim of severe physical punishment for children are lower for girls (thus higher for boys) and higher for children aged 2-4, and 5-9 when compared to the reference group (children aged 10-14).

**Table 7:** Multilevel logistic regression results

	Common Model			Model 2 (MODA)			Model 3 (Acceptance of DV)		
	Odds Ratio	CI	p	Odds Ratio	CI	p	Odds Ratio	CI	p
<b>FIXED PARTS</b>									
<b>(INTERCEPT)</b>									
	0.1	0.08 – 0.12	<.001	0.11	0.09 – 0.13	<.001	0.11	0.09 – 0.13	<.001
<b>CHILD'S BIOLOGICAL SEX (FEMALE)</b>									
	0.77	0.75 – 0.80	<.001	0.77	0.75 – 0.80	<.001	0.79	0.77 – 0.82	<.001
<b>CHILD'S AGE GROUP (REFERENCE: 10-14 YEARS OLD)</b>									
2-4 years	1.21	1.16 – 1.26	<.001	1.2	1.16 – 1.25	<.001	1.13	1.08 – 1.18	<.001
5-9 years	1.36	1.32 – 1.41	<.001	1.36	1.31 – 1.41	<.001	1.32	1.27 – 1.38	<.001
<b>CHILD DROPOUT</b>									
	1.07	0.99 – 1.16	.072	1	0.92 – 1.09	.998	1.01	0.92 – 1.12	.764
<b>CHILD (HALF) ORPHANED</b>									
	0.73	0.68 – 0.79	<.001	0.73	0.67 – 0.79	<.001	0.68	0.61 – 0.75	<.001
<b>RESPONDENT'S BIOLOGICAL SEX (FEMALE)</b>									
	1.31	1.26 – 1.36	<.001	1.35	1.29 – 1.41	<.001	1.32	1.25 – 1.38	<.001
<b>RESPONDENT'S EDUCATION BELOW LOWER SECONDARY SCHOOL (LSS)</b>									
	1.15	1.04 – 1.28	.009	1.15	1.03 – 1.28	.012	1.14	1.01 – 1.30	.410
<b>PHYSICAL PUNISHMENT NECESSARY (YES)</b>									
	2.94	2.85 – 3.04	<.001	3.14	3.04 – 3.25	<.001	3.08	2.97 – 3.20	<.001

## Continuation of Table 7: Multilevel logistic regression results

### NUMBER OF CHILDREN IN HOUSEHOLD (REFERENCE: 1 CHILD)

2	1.27	1.20 – 1.34	<.001	1.27	1.20 – 1.35	<.001	1.22	1.14 – 1.31	<.001
3-4	1.47	1.40 – 1.55	<.001	1.46	1.38 – 1.54	<.001	1.39	1.30 – 1.49	<.001
5-6	1.72	1.61 – 1.82	<.001	1.67	1.57 – 1.78	<.001	1.57	1.45 – 1.69	<.001
7+	2	1.86 – 2.15	<.001	1.92	1.78 – 2.08	<.001	1.77	1.62 – 1.94	<.001

### LOCALITY (REFERENCE: URBAN)

rural	1.05	1.01 – 1.08	.011	1.05	1.01 – 1.09	.015	1.02	0.98 – 1.07	.298
camp	1.19	0.98 – 1.44	.078	1.19	0.98 – 1.44	.077	N/A		

### HH BELONGS TO POOREST 40%

	1.3	1.26 – 1.35	<.001	1.27	1.22 – 1.32	<.001	1.24	1.19 – 1.29	<.001
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### NUMBER OF SEVERE CHILD DEPRIVATIONS

	NA			1.05	1.03 – 1.07	<.001	1.05	1.02 – 1.07	<.001
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### DV ACCEPTABLE FOR AT LEAST 1 FEMALE IN HH

	NA			NA			1.36	1.31 – 1.42	<.001
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### RANDOM PARTS

$\tau_{00}$ , HH7Conf	0.556	$\tau_{00}$ , HH7Conf	0.468	$\tau_{00}$ , HH7Conf	0.513
NHH7Conf	121	NHH7Conf	107	NHH7Conf	103
ICCHH7Conf	0.145	ICCHH7Conf	0.125	ICCHH7Conf	0.135
Observations	114916	Observations	102094	Observations	78179
Deviance	118152.374	Deviance	104922.325	Deviance	80711.684

It is important to note that children as young as 2-4 years old already have roughly 1.2 times higher odds of becoming severely physically punished than children aged 10 to 14.

While boys are more at risk than girls, the odds that children experience severe physical punishment are at least 1.3 times higher when the respondent (as proxy for the parent) was female.

The education of the respondent also plays an important role: children living in households, where the respondent had an education below Lower Secondary School (LSS) as compared to those with a higher level of education, have 1.15 times higher odds of becoming severely physically abused.

The highest odds, however, to become a victim of severe physical abuse have children living with respondents, who believe that physical punishment of children is acceptable. Indeed, the odds are almost three times higher than for these children, than for the reference group (respondents not supportive of physical punishment).

The more children are in a household, the higher the odds for severe physical punishment become. The data shows that in households in which seven or more children live, the odds are two times higher than for those, in which only one child lives.

The odds for children to become a victim of severe punishment is slightly elevated (1.05 times) in rural areas. Living in camps raises the odds for children to 1.19.

Moreover, children living in poorer households (poorest 40 per cent of the sample) have 1.3 times higher odds than those from relatively more affluent households.

The value of the Intraclass Correlation-Coefficient (ICC) at the bottom of the first model is .145, which means that roughly 15 per cent of the model's variance can be explained by the characteristics of the subnational entity alone (i.e. traditions, belief systems or other). This finding underlines the importance of analysing data beyond the national level.<sup>27</sup>

## *VII. 4. 2 MODEL 2: THE ROLE OF MULTIPLE OVERLAPPING DEPRIVATIONS (MODA)*

In Model 2, we included the additional predictor "number of severe deprivations" the child is suffering from multiple overlapping deprivations. We can only observe a very slight effect (1.05 higher odds for each deprivation encountered). It appears therefore that the other socio-demographic factors mentioned above play a more important role.

## *VII. 4. 3 MODEL 3: THE ROLE OF DOMESTIC VIOLENCE*

The third model includes a variable that indicates if at least one woman in the household believes that domestic violence against women can be justified in certain circumstances. As we have seen earlier in chapter V, the presence of such attitudes is indeed another risk factor for severe physical punishment: the odds are 1.36 times higher as compared to households, where domestic violence is never accepted.

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27 More information on the variation between subnational entities can be found in the Annex XIII.8.2



# VII ILLUSTRATION: THE COMBINATION OF RISKS

In the previous analyses we used a series of logistic regressions to predict the odds of a child to be subjected to severe physical punishment across a wide array of risk factors. While these analyses can provide a good overview of the relative importance of different risks, in a next step we aim at illustrating what happens when risk factors cumulate.

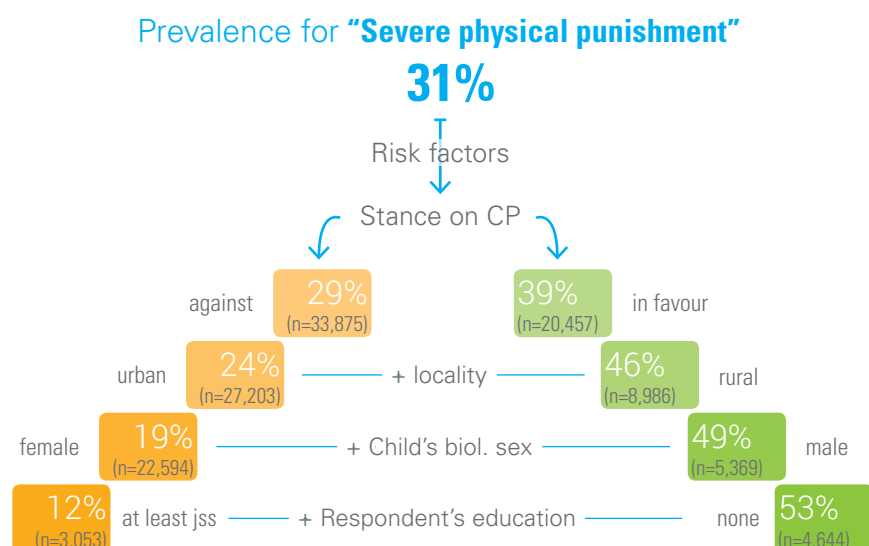
In the below chart we assigned children to different groups, according to the risk factors they are exposed to. These risk factors are based on the most important risk factors identified in the earlier sections of this report.

For the combined dataset (consisting of surveys ran in 11 countries in the MENA region), the overall prevalence for severe physical punishment is 31 per cent.<sup>28</sup> However, by dividing the dataset into two groups, we observe an increase in the prevalence for children in the group of households with respondents in favour of physical punishment to 39 per cent. The prevalence, for the group opposing corporal punishment (CP), however, is decreasing slightly to 29 per cent.

The next level compares the prevalence rates of children from urban areas (and who live in households opposed to CP) to those in rural areas (and who have a positive stance towards CP). In the former group the prevalence rate further decreases to 24 per cent, whereas the combination of the two exposures in the latter group increases the prevalence rate to 46 per cent.

By adding more risk factors (biological sex and education level), the prevalence rate rises to an overall 53% (for children in households with positive attitudes towards CP, living in rural areas, when the child is male, and the respondent has not attended school).

**Figure 20:** Combination of risk factors and influence of prevalence (severe physical punishment)



n=30,774 children who have experienced "Severe Physical Punishment", n in cells reflects the unweighted n for the respective subtable

28 Although it would be useful to triangulate this regional estimate with other studies, the DHS/MICS programme remains the only source for robust and internationally comparable data on child discipline. The World Health Organisation attempted to develop regional estimates by aggregating country-level studies in their "Eastern Mediterranean region" that excludes Northern Africa (for which no data was available). As a result of this exercise, the WHO found a "median lifetime prevalence" for "physical abuse" in that region from 6 studies of 26% (World Health Organisation, 2018).

On the other side of the spectrum, when all four risk factors are absent (respondent is against CP, lives in an urban setting, has attended Lower Secondary School and the child is female), the prevalence rate decreases to 12%.<sup>29 30</sup>

This finding highlights the following issues:

It confirms the hypothesis that a combination of risk factors puts the child at a comparatively higher risk than others, who do not suffer from as many risks.

The risk of victimization strongly increases for children who live in households that believe that child physical punishment is beneficial (the prevalence rose by eight percentage points). At the same time, the protective factor is not as pronounced: in households in which respondents disapprove physical punishment, the prevalence rate decreased merely by two percentage points.

Even when all four risk factors are absent for the same child, the prevalence rate for severe physical punishment is 12 per cent (background risk). This finding suggests that there are possibly more risk factors at play that are not reflected in the studies we used for this analysis.

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29 95% CI [.076-.164]

30 Despite these findings, however, it needs to be acknowledged that with the increasing combination of (protective or risk) factors also the number of cases per group decreases, leading to a decreasing level of precision.



# X DISCUSSION AND CONCLUSIONS

The objective of this study was to conduct a cross country equity analysis of prevalence of violent discipline and to understand not only the effects of violent discipline but also to identify the key risk factors.

The study was based on household surveys conducted in the MENA region that all employed a standardized child discipline module. From that backdrop, this study represents the first comprehensive analysis of violent child discipline for the MENA region.

The findings highlighted an overall high level of violent disciplinary practices across the region – and also on a worldwide level. For example, among the 20 countries with the highest prevalence for violent discipline, seven were located in the MENA region.

Translated to the overall child population (aged 2-14) of 85 million in the surveyed countries (UN DESA Population Division, 2017), it is safe to estimate that 71 million children (84 per cent) have experienced any type of violent discipline in the 30 days prior to the survey, 68 million (80 per cent) psychological aggression, 60 million (70%) physical punishment and roughly 27 million severe physical punishment (31 per cent). These numbers are alarmingly high.

Using the ecological model as our theoretical framework, we were able to confirm that the sex of the children as well as their age are important risk factors: especially boys aged 5-9 years are at an elevated risk of becoming physically abused, which is in line with the findings of other researchers, such as Belsky and Dietz (Belsky, 1993; Dietz, 2000).

Other important risk factors that were proposed by researchers were also confirmed, such the role of the main caregiver's education – low education being a risk factor - (Black, Heyman and Smith Slep, 2001; Freisthler, Merritt and LaScala, 2006) or the role of poverty and inequality (Berger, 2004; Epps and Huston, 2007; Peterman et al., 2017), which are both believed to be stressors that ultimately promote violence against children.

In addition, we also found evidence that violence against women and violence against children are related to each other, as it was proposed by other researchers (Fang and Corso, 2007; Guedes et al., 2016) research, programmes, and policies on these forms of violence followed parallel but distinct trajectories. Some have called for efforts to bridge these gaps, based in part on evidence that individuals and families often experience multiple forms of violence that may be difficult to address in isolation, and that violence in childhood elevates the risk of violence against women.

Overall, we can conclude that the findings from this research also confirm findings from previous analyses that used MICS data to get a better understanding of violent discipline (Akmatov, 2011; Cappa and Dam, 2014),

In that respect, we were able to replicate findings from other regions and countries and verify that these theoretical frameworks are also applicable for the MENA region. However, due to the contents of the questionnaires, we were not able to research the role of unemployment, family dynamics and other risk factors that are also deemed to play an important role in understanding the phenomenon.

Despite the many communalities with other research results, we also found a number of interesting findings for which no comparable studies exist. For example, on a global level the HDI and GNI are negatively correlated to the prevalence of violent discipline. For the MENA countries, however we found no evidence for this trend.

Although there is a correlation between positive attitudes towards physical punishment and the actual prevalence rates on the country level, we found that the two numbers do not correspond well. In most countries, for example, not more than 30 per cent of respondents do support physical punishment – yet the prevalence rates in most of the same countries is higher than 60 per cent. Interestingly, the correlation between attitudes and behaviours was strongest on the country level – as soon as we compared individual attitudes and behaviours, it became considerably weaker.

Reasons for this might be related to the different cultural contexts and opinions of what constitutes violent behaviour. We found that while respondents clearly distinguished between (non-violent) disciplinary measures (“explain what the child did wrong”) and very violent ones (such as “beat up a child”), for some behaviours the lines are blurred. For example, “shaking a child”; “yelling at a child” or “slapping the child on the bottom” appear not to be considered as “violent” – and therefore acceptable – behaviours for the respondents.

In terms of child development, we saw that 77 per cent of children, who have not been subjected to violent discipline in the past 30 days, can be considered developmentally on track – as compared with 66 per cent of children, who have been victims of severe physical punishment. We also observed that 42 per cent of children, who experienced severe physical punishment “kicked, bit, or hit other children or adults” – almost double the number of those children, who have not experienced violent discipline in the last 30 days.<sup>31</sup>

We also found hints that prevalence rates for violent discipline vary across sub-national entities, which leads us to the conclusion that besides the risk factors mentioned above (biological sex, age, education, etc.) and attitudes towards physical punishment, there might be social norms and traditions at the sub-national and local level that promote or hinder violence against children.

In particular this finding also underlined the need to go beyond national prevalence rates to be able to identify hotspots at lower administrative level.

A final important finding is that risk factors appear to have a cumulative effect. In an illustrative analysis we found that 53 per cent of boys, living in rural areas, with respondents who support physical punishment and who have a low education, have experienced severe physical punishment. The contrast group, for which none of these risk factors was true (girls, living in urban areas, where higher educated respondents do not support physical punishment), the prevalence rate was 12 per cent. Besides the cumulative effect of risk factors, this analysis also showed that protective factors have a considerably weaker effect: while positive attitudes towards physical punishment immediately increased the risk of victimization, their absence did only slightly decrease the prevalence rate.

In summary, we can conclude that this analysis confirmed that key drivers and risk factors for violent discipline that were developed by the international research community are also valid for the MENA region.

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31 While this finding is interesting, we need to consider that it is developmentally expected that 3-4-year-olds exhibit such behaviours. It only becomes problematic when such behaviour happens frequently, and/or a certain level of severity is involved. As we do not have data on neither frequency nor severity of such behaviours we recommend treating these findings with caution.

# RECOMMENDATIONS

This secondary research is the first of its kind. It aggregated data from 12 country level representative surveys to shed light on child disciplining practices at the national and sub-national levels across the Middle East and North Africa region.

Below are the recommendations of this study categorized under advocacy and policy dialogue, programming and monitoring. In considering and taking forward these recommendations, it is important to recognize that every sector has a vital role in violence prevention and response across the life course of a child. Multi-sectoral collaboration is therefore critical because it can ensure, inter alia, a continuum of support and care for children at risk or survivors of violence; it can multiply impact; ensure that a full range of perspectives, skills and resources are represented and used; improve the ability to analyse, understand and address complex interactions of risk and protective factors; support cost-effective use of resources; strengthen accountabilities and ultimately improve outcomes for children and families who experience or are at risk of violence.<sup>32</sup>

These recommendations are very much aligned with and reinforce those contained in other global or regional studies and programming frameworks on violence against children, including the Inspire Seven Strategies for Ending Violence Against Children.

## Advocacy and Policy Dialogue

- The main findings of this study should be discussed with an assembled pool of experts from relevant disciplines, at both the regional and country level, with a view to ensure contextualization, prioritization and agreement on concrete follow-up actions.
- Where feasible, such expert consultations should be organized as part of the ongoing regional and country level efforts around the larger Violence Against Children agenda to maximize resources and capitalize on existing efforts. Fostering those linkages is necessary also as violence in one setting is naturally intertwined with violence in other settings.
- Once validated and endorsed, the findings emanating from this study should also be used to initiate a policy dialogue with governments (both central and sub-national entities) to generate the normative changes needed at the policy and legislative level to ban all forms of violent discipline practices at home, and in other settings too, as well as ensure effective enforcement of laws that define and prohibit all forms of violence. Whilst laws alone do not reduce violence, including at home, their effective implementation and enforcement can support and strengthen all other strategies to end violence against children.

## Programming

- This study clearly showed that some children are at an heightened risk of violent discipline at home. However, with an average violent discipline prevalence rate at household level of 84 per cent, there is an urgent need to scale up investment in evidence-based parenting and caregivers' programmes (initially in hotspot areas, later nationwide) that are multi-sectoral and cut across the life course of children. Such programmes provide parents and caregivers with the skills they need to shift to positive and non-violent child discipline practices. Programmes that support parents and caregivers are cost effective ways to strengthen parent-child relationships, care-giving, and the health, safety and resilience of children and families, which eventually help preventing all types of violence. Such programmes typically fall into three categories: parenting in community group settings; home-visiting programmes (both of which can be delivered by nurses, social workers or trained lay workers); and more comprehensive programmes which tend to be part of other social or educational programmes such as life skills or economic strengthening programmes<sup>33</sup>.
- In addition, there is a critical need to invest in behaviour change interventions to address the underlying and specific drivers of violent disciplining practices. Such interventions are critical to address the general acceptance and normalization by parents, children, and the society at large, of violent discipline. Such interventions around child-rearing, gender roles and the acceptability of violence are critical to promote positive norms and values and reduce the impact of harmful practices on children.
- Moreover and in support of other interventions, nationwide communication campaigns should be implemented focusing on the detrimental immediate and long-term effects of violent discipline on the health, well-being and development of children.

32 INSPIRE HANDBOOK

33 INSPIRE HANDBOOK

## Monitoring

- Although the standard tabulations available in the DHS and MICS surveys do showcase various disaggregates which help in the analysis of inequities in violent discipline practices, these surveys lack data on the drivers of these behaviours from a social and cultural standpoint. To this end, it will be critical to ensure adequate investment is made in developing a comprehensive monitoring framework, with accompanying measurement tools, to assess progress against changing behaviours that are leading to violent child discipline at home.
- Strengthen investment in national administrative data systems across health, education, social welfare, justice and other national administrative systems concerned with provision of child protections services. These systems would be crucial in providing more frequent data on children who are accessing and benefitting from services.

# X LIMITATIONS OF THIS STUDY

Although this research uses the largest dataset on violent discipline available for the MENA region to date, this study is limited to the – mainly socio-demographic – variables found in these surveys (age, sex, education, etc.). A key limitation of this study is that a number of other influential predictors that are suggested by researchers, such as local traditions, social norms, family dynamics or caregiver’s own victimization experience are not available through these surveys and therefore cannot be explored further.

This limitation became obvious at all steps of the analysis, for example the missing link between attitudes and actual behaviours and the (sometimes) large fluctuations of prevalence rates across subnational entities in the very same countries that could not be explained by the (mainly socio-demographic) predictor variables.

## LIMITATIONS OF THE DATASET

Even after the data cleaning and developing three distinct standardized datasets the following limitations were observed:

- Not all questions were asked in all countries so that, for example, only for a limited number of countries data on child disability is available.
- Advanced analyses of the variables available in datasets, such as the MODA analysis or questions domestic violence are not available for all countries.

This means that we could not run a full statistical model on all predictor variables, as only very few countries actually have data on these. Rather, we had to run different models using different variables in different countries.

This means that not all findings from these limited analyses might be valid for all countries in the region.

## GENERALIZABILITY OF ESTIMATES (“REGIONAL ESTIMATES”)

The consultants do not recommend considering the data to be necessarily representative for the entire region:

- The dates of data collection vary to a very large degree among countries, e.g. the data from MICS surveys in Djibouti and Lebanon were collected 10 years apart (2006 and 2016, respectively). Therefore, especially the older surveys might no longer represent the current situation.
- An example for this is the data from Syria which was collected while being at peace (2006) but is currently undergoing an ongoing, long-term civil war. Therefore, it is unclear whether these estimates are actually valid for today’s situation.
- Not all questions – especially on violent discipline – were asked in exactly the same way or specific behaviours were missing.<sup>34</sup> Therefore, presenting data as regionally representative suggests a greater conformity of questions than is actually available.
- There is no present or historical data on the prevalence of violent child discipline from Morocco, Libya, Saudi Arabia, the Gulf States (apart from Qatar) or Iran.<sup>35</sup> Considering the data from the MICS/DHS surveys to be representative for the entire region would assume that behaviours in these countries are on average similar, which would be inaccurate.

From that backdrop, we consider the pooled data from these surveys to be not representative for the entire region, but – in lieu of better data at this point – a necessary starting point to explore the phenomenon. This means that the prevalence and estimates presented in this report do under no circumstance represent the situation in the entire region at any point in time.

While the study was able to shed some light on the influence of different (mainly socio-demographic) factors on violent discipline in the region, it can therefore only serve as a starting point to better understand the phenomenon in the region.

34 Like the questions on psychological aggression that were not part of the Yemen DHS.

35 Referring to data which is comparable and validated for global reporting. As some countries might have included the child discipline module in their national surveys but the microdatasets were not publicly accessible.

# X ETHICAL CONSIDERATIONS

Based on datasets that have been collected through the MICS and DHS survey programmes, this secondary data analysis did not require primary data collection anew from any human subject. The consent of study subjects for this analysis can be reasonably presumed.

All dataset are available in the public domain and can be obtained by anyone if the respective protocols for the acquisition and use of the datasets are followed.

The datasets were used solely for the objectives of the study.

None of the datasets used included data that could be used to identify individuals; the findings in this research report also do not allow for the identification of individuals.

# XI REFERENCES

- Akmatov, M. K. (2011) 'Child abuse in 28 developing and transitional countries-results from the multiple indicator cluster surveys', *International Journal of Epidemiology*, 40(1), pp. 219–227. doi: 10.1093/ije/dyq168.
- Bandura, A. (1977) 'Social learning theory'. NJ: Prentice-Hall.
- Belsky, J. (1993) 'Etiology of child maltreatment: a developmental-ecological analysis.', *Psychological bulletin*. United States, 114(3), pp. 413–434.
- Berger, L. M. (2004) 'Income, family structure, and child maltreatment risk', *Children and Youth Services Review*, 26(8), pp. 725–748. doi: 10.1016/j.chilyouth.2004.02.017.
- Black, D. A., Heyman, R. E. and Smith Slep, A. M. (2001) 'Risk factors for child physical abuse', *Aggression and Violent Behaviour*, pp. 121–188. doi: 10.1016/S1359-1789(00)00021-5.
- Bowen, M. (1978) *Family therapy in clinical practice*. New York: Jason Aronson.
- Cappa, C. and Dam, H. (2014) 'Prevalence of and Risk Factors for Violent Disciplinary Practices at Home in Viet Nam', *Journal of Interpersonal Violence*, 29(3), pp. 497–516. doi: 10.1177/0886260513505215.
- Carle, A. C. (2009) 'Fitting multilevel models in complex survey data with design weights: Recommendations', *BMC Medical Research Methodology*, 9(1), pp. 1–13. doi: 10.1186/1471-2288-9-49.
- CDC (2018) *Youth Violence: Risk and Protective Factors*. Available at: <https://www.cdc.gov/violenceprevention/youthviolence/riskprotectivefactors.html> (Accessed: 1 January 2018).
- Centers for Disease Control and Prevention (no date) *The Social-Ecological Model: A Framework for Prevention* | Violence Prevention | Injury Center | CDC. Available at: <https://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html> (Accessed: 18 January 2018).
- Child Protection Monitoring and Evaluation Reference Group (2014) 'Measuring Violence against Children: Inventory and assessment of quantitative studies, Division of Data, Research and Policy', p. 109.
- Dietz, T. L. (2000) 'Disciplining children: characteristics associated with the use of corporal punishment', *Child abuse & neglect*. England, 24(12), pp. 1529–1542.
- Epps, S. R. and Huston, A. C. (2007) 'Effects of a Poverty Intervention Policy Demonstration on Parenting and Child Behaviour : A Test of the Direction of Effects n', 88(2).
- Fang, X. and Corso, P. S. (2007) 'Child maltreatment, youth violence, and intimate partner violence: developmental relationships.', *American journal of preventive medicine*. Netherlands, 33(4), pp. 281–290. doi: 10.1016/j.amepre.2007.06.003.
- Freisthler, B., Merritt, D. H. and LaScala, E. a (2006) 'Understanding the ecology of c maltreatment: A review of the literature and directions for future research', *Child Maltreatment*, 11(3), pp. 263–280. doi: 10.1177/1077559506289524.
- Fry, D. et al. (2016) 'Prevalence of violence in childhood and adolescence and the impact on educational outcomes: evidence from the 2013 Peruvian national survey on social relations', *International Health*, 8(1), pp. 44–52. doi: 10.1093/inthealth/ihv075.
- Guedes, A. et al. (2016) 'Bridging the gaps: a global review of intersections of violence against women and violence against children', *Global Health Action*. Taylor & Francis, 9(0), pp. 1–15. doi: 10.3402/gha.v9.31516.
- Hashimoto, H. et al. (2016) 'The relationship between parents with a history of childhood problems and incidence of consequent child abuse', *The Journal of Medical Investigation*, 63(3.4), pp. 209–215. doi: 10.2152/jmi.63.209.
- Iadicola, P. and Shupe, A. D. (1998) *Violence, inequality, and human freedom*. Dix Hills, NY: General Hall, Inc.
- Krug, E. G. et al. (2002) *World report on violence and health*. World Health Organization. doi: 10.1136/ip.9.1.93.
- Lambert, S. F. et al. (2005) 'Risk factors for community violence exposure in adolescence', *American Journal of Community Psychology*, 36(1–2), pp. 29–48. doi: 10.1007/s10464-005-6231-8.
- Lo, C. K. M. et al. (2017) 'Risk factors for child physical abuse and neglect among Chinese young mothers', *Child Abuse & Neglect*. Elsevier Ltd, 67, pp. 193–206. doi: 10.1016/j.chiabu.2017.02.031.
- Locke, L. M. and Prinz, R. J. (2002) 'Measurement of parental discipline and nurturance', *Clinical Psychology Review*, 22(6), pp. 895–929. doi: 10.1016/S0272-7358(02)00133-2.
- Maternowska, M. C., Potts, A. and Fry, D. (2016) 'The Multi-Country Study on The Drivers of Violence Affecting Children: A Cross-Country Snapshot of Findings', UNICEF Office of Research- Innocenti.

- Mercy, J. A. et al. (2008) 'Preventing violence in developing countries: a framework for action', *International journal of injury control and safety promotion*, 15(4), pp. 197–208. doi: 10.1080/17457300802406955.
- Min, M. O. et al. (2013) 'Pathways linking childhood maltreatment and adult physical health', *Child abuse & neglect*. NIH Public Access, 37(6), pp. 361–73. doi: 10.1016/j.chiabu.2012.09.008.
- Mohr, W. K. and Anderson, J. A. (2002) 'Reconsidering Punitive and Harsh Discipline', *The Journal of School Nursing*, 18(6), pp. 346–352. doi: 10.1177/10598405020180060701.
- Neubourg, C. De et al. (2012) 'Cross-Country MODA Study', <https://www.unicef-irc.org/publications/696-cross-country-moda-study-multiple-overlapping-deprivation-analysis-moda-technical.html>
- Nguyen Ho Minh Trang, N. H. C. D. (2014) 'Violent disciplinary practices towards children among caregivers in Vietnam: A cross-sectional survey', *Journal of Social Research & Policy*, 5(1), pp. 1–9.
- Ohene, S. et al. (2006) 'Parent's Use of Physical punishment Increases Violent Behaviour Among Youth', *Pediatrics*, pp. 441–447. Available at: <http://www.apa.org/pi/prevent-violence/resources/violent-behaviour.aspx>.
- Peterman, A. et al. (2017) 'Understanding the linkages between social safety nets and childhood violence: a review of the evidence from low- and middle-income countries', *Health Policy and Planning*, (November), pp. 1049–1071. doi: 10.1093/heapol/czx033.
- Poretti, M. et al. (2014) 'Convention on the Rights of the Child', 18944(October), pp. 21–38. doi: 10.1177/0907568213481816.
- Rabe-Hesketh, S. and Skrondal, A. (2006) 'Multilevel modelling of complex survey data', *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 169(4), pp. 805–827. doi: 10.1111/j.1467-985X.2006.00426.x.
- Sachs-Ericsson, N. J. et al. (2017) 'Non-violent and violent forms of childhood abuse in the prediction of suicide attempts: Direct or indirect effects through psychiatric disorders?', *Journal of Affective Disorders*, 215, pp. 15–22. doi: 10.1016/j.jad.2017.03.030.
- Sethi, D. et al. (2004) *Handbook for the documentation of interpersonal violence prevention programmes*.
- Snijders, T. and Bosker, R. (2012) *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*, 2nd edn. London: SAGE Publications, Inc.
- Stith, S. M. et al. (2009) 'Risk factors in child maltreatment: A meta-analytic review of the literature', *Aggression and Violent Behaviour*. Elsevier Ltd, pp. 13–29. doi: 10.1016/j.avb.2006.03.006.
- Straus, M. A. (1979) 'Measuring Intrafamily Conflict and Violence: the Conflict Tactic Scales', *Journal of Marriage and Family*, 41(1), p. 75.
- Straus, M. A. et al. (1996) 'The Revised Conflict Tactics Scales (CTS2)', *Journal of Family Issues*, 17(3), pp. 283–316. doi: 10.1177/019251396017003001.
- Straus, M. A. and Gelles, R. J. (1986) 'Societal Change and Change in Family Violence from 1975 to 1985 as Revealed by Two National Surveys', *Journal of Marriage and Family*. [Wiley, National Council on Family Relations], 48(3), pp. 465–479. doi: 10.2307/352033.
- Straus, M. A. and Paschall, M. J. (2009) 'Corporal Punishment by Mothers and Development of Children's Cognitive Ability: A Longitudinal Study of Two Nationally Representative Age Cohorts', *Journal of Aggression, Maltreatment & Trauma*. Taylor & Francis Group, 18(5), pp. 459–483. doi: 10.1080/10926770903035168.
- The DHS Programme (2018) *The DHS Programme - DHS-Methodology*. Available at: <https://population.un.org/wpp> (Accessed: 21 March 2018).
- UN DESA Population Division (2017) *World Population Prospects 2017: Table 8-1*. Available at: [https://esa.un.org/unpd/wpp/DVD/Files/1\\_Indicators\\_\(Standard\)/EXCEL\\_FILES/1\\_Population/WPP2017\\_POP\\_F08\\_1\\_TOTAL\\_POPULATION\\_BY\\_BROAD\\_AGE\\_GROUP\\_BOTH\\_SEXES.xlsx](https://esa.un.org/unpd/wpp/DVD/Files/1_Indicators_(Standard)/EXCEL_FILES/1_Population/WPP2017_POP_F08_1_TOTAL_POPULATION_BY_BROAD_AGE_GROUP_BOTH_SEXES.xlsx) (Accessed: 21 June 2018).
- UNDP (2016) *Human Development Report 2016 - Statistical Annex Table\_1*. Available at: [http://hdr.undp.org/sites/default/files/composite\\_tables/2016\\_Statistical\\_Annex\\_Table\\_1.xls](http://hdr.undp.org/sites/default/files/composite_tables/2016_Statistical_Annex_Table_1.xls) (Accessed: 21 June 2018).
- UNICEF (2010) *Child disciplinary practices at home: Evidence from a range of low- and middle-income countries*. doi: ISBN: 978-92-806-4547-7.
- UNICEF (2015) 'Child Protection Resource Pack'. Available at: <http://www.unicef.org/protection/files/CPR-WEB.pdf>.
- UNICEF (2018) *Tools - UNICEF MICS*. Available at: <http://mics.unicef.org/tools> (Accessed: 21 March 2018).
- UNICEF Data and Analytics Section (2017a) *Percentage of children 2-14 years old who experience any violent discipline (psychological aggression and/or physical punishment)*. Available at: <https://data.unicef.org/wp-content/uploads/2017/11/Violent-discipline-database-Nov-2017.xls> (Accessed: 21 June 2018).



UNICEF Data and Analytics Section (2017b) Percentage of girls and women 15-49 years old who consider a husband to be justified in hitting or beating his wife for at least one of the specified reasons. Available at: [https://data.unicef.org/wp-content/uploads/2017/11/Attitudes-towards-wife-beating-Women-database\\_Nov-2017.xls](https://data.unicef.org/wp-content/uploads/2017/11/Attitudes-towards-wife-beating-Women-database_Nov-2017.xls) (Accessed: 21 June 2018).

United Nations Children's Fund (2014) Hidden in Plain Sight: A statistical analysis of violence against children. doi: 10.2105/AJPH.2009.181255.

United Nations Children's Fund (2017) A FAMILIAR FACE Violence in the lives of children and adolescents. UNICEF. Available at: [https://www.unicef.org/publications/files/Violence\\_in\\_the\\_lives\\_of\\_children\\_and\\_adolescents.pdf](https://www.unicef.org/publications/files/Violence_in_the_lives_of_children_and_adolescents.pdf).

United Nations Children's Fund (2018) 'Child Poverty in the Arab States: Analytical Report of Eleven Countries'.

Wareham, J., Boots, D. P. and Chavez, J. M. (2009) 'Social learning theory and intimate violence among men participating in a family violence intervention program', *Journal of Crime and Justice*. Routledge, 32(1), pp. 93-124. doi: 10.1080/0735648X.2009.9721263.

WHO (2011) 'The ecological framework', WHO. World Health Organization. Available at: <http://www.who.int/violenceprevention/approach/ecology/en/> (Accessed: 22 August 2017).

World Health Organization (2018) Violence Info – Studies. Available at: <http://apps.who.int/violence-info/studies?area=child-maltreatment&aspect=prevalence&region=eastern-mediterranean-region> (Accessed: 17 May 2018).





## XIII. 1 POPULATION ESTIMATES FOR THE MENA REGION

	POPULATION (IN MILLIONS)	
	Total	Children aged 2-14 years
ALGERIA	39.9	9.5
DJIBOUTI	0.9	0.3
EGYPT	93.8	25.6
IRAQ	36.1	12.4
JORDAN	9.2	2.8
LEBANON	5.9	1.2
QATAR	2.5	0.3
SUDAN	4.7	1.6
SYRIA	38.6	13.6
TUNISIA	18.7	6.3
STATE OF PALESTINE	11.3	2.2
YEMEN	26.9	9.3
SUBTOTAL	288.4	85.1
MIDDLE EAST & NORTH AFRICA*	459.0	120.6

Source: UN DESA Population Division, 2017

\* including Algeria, Bahrain, Djibouti, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, State of Palestine, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen

## XIII. 2 VARIATIONS OF ITEMS WITHIN THE CHILD DISCIPLINE MODULE

STANDARD FORMULATION	VARIATION	SURVEY
Took away privileges	Grounded the child (Jordan and Yemen surveys)	Jordan, Yemen
Explained why behaviour was wrong	Explained why behaviour was wrong during past month	Egypt
	Explained wrong behaviour	Jordan, Yemen
Gave child something else to do	No change	
Shouted, yelled or screamed at child	Not available	Yemen
Called child dumb, lazy or another name	Not available	Yemen
	Insulted the child	Egypt, Jordan
Shook child	No change	
Spanked, hit or slapped child on bottom with bare hand	Not available	Qatar
	Spanked the child	Jordan, Yemen
Hit child on the bottom or elsewhere with belt, brush, stick, etc.	Hit the child with a belt	Jordan, Yemen
Hit or slapped child on the hand, arm or leg	Hit the child on the hand, arm or leg	Jordan, Yemen
Hit or slapped child on the face, head or ears	Hit the child on the head, face, or ears	Jordan, Yemen
Beat child up as hard as one could	Beat child up with an implement	Iraq, Qatar, Syria
	Le/la taper avec un instrument aussi dur que possible	Djibouti
	Beat the child	Jordan
	Beat the child continually	Yemen

### XIII. 3 DETAILED TABLE OF RISK FACTORS AND OPERATIONALIZATION IN THE MICS/DHS DATASET

**Table 8:** Risk factors and data sources

LAYER (ECOLOGICAL FRAMEWORK)	DATA SOURCE
<b>Individual</b>	
Sex (of child)	Child's biological sex (*)
Child's education	Child's education level (*)
Child is a school dropout	Has the child dropped out from school prematurely (*)
Vulnerability due to age	Child's age (*)
Vulnerability due to ethnicity	N/A
Vulnerability due to disability	Child's disability status (DHS only) (*)
Early experience of violence and conflict before adolescence, including domestic violence	N/A
Child suffers from serious deprivations	Number of serious deprivations child suffers from (as defined by MODA) (*)
Parent's biological sex	Proxy: Respondent's biological sex (*) <sup>30</sup>
Parents' education	Proxy: Respondent's education level (*)
Parents' history of abuse	N/A
Parents' history of substance abuse	N/A
Parents' occupation(s)	N/A
Parents' financial status	N/A
Parents' illness/health	N/A
Beliefs about gender roles or the acceptability of punishment and violence	Proxy: Adult respondent's attitudes towards physical punishment (*) Proxy: Adult female respondents' attitudes towards justification of domestic violence against women (*)
<b>Relations</b>	
Behavioural problems such as a lack of empathy and externalizing these behaviours among children	N/A
Family stress: poverty	Proxy for poverty: first two Wealth Quintiles (*)
Family stress: unemployment	N/A
Family structure	Proxy: Total number of adults in household(*) Proxy: Total number of children below age 18 in household(*)
Parental absence	N/A
<b>Individual</b>	
Double-orphan	Orphan status of child (*)

<sup>36</sup> The questions on child discipline are located within the household questionnaire, which is administered to one adult member of the household willing to answer it. This person is not necessarily the parent or childrens' caregiver, but could also be an adult sibling, uncle or other household member. However, as we receive all discipline-related information on practices and attitudes from this person, we use his/her demographic data as a proxy for the parents here.

Quality of peer relationships inclusions/ exclusion from same age networks	N/A
Quality of family relationships inclusion/ exclusion from family/kin networks	N/A
Isolation or degree of family isolation	N/A
<b>Community</b>	
Rural or urban location	Locality of interview (rural/urban)(*)
Harmful cultural practices and/or social norms that support violence, including taboos	N/A
Quality of community relationships such as the lack of community connected- ness and trust	N/A
Perceptions of community violence	N/A
Quality of peer relationships inclusions/ exclusion from same age networks	N/A
Exclusion from same age networks	
Quality of family relationships	N/A
Exclusion from family/kin networks	
Isolation or degree of family isolation	N/A
Weak Child Protection Systems or inef- fective System response	N/A
<b>Society</b>	
Harmful cultural rites and religious doctrines relating to hierarchy, authority, gender and punishment	N/A
Weak legal structures and/or ineffective policies to protect children (...)	GI: Rule of Law: Estimate (WGI) Proxy: Legislation exists on domestic violence (WDI)
Unemployment	Unemployment, total (% of total labor force) (mod- elled ILO estimate) (WDI)
Economic inequality	Gini Coefficient (Economic inequality) for national level (WDI)
Sex selection	Ratios: Mortality rate, infant, male (per 1,000 live births) / Mortality rate, infant, female (per 1,000 live births) (WB)
Educational preference for boys(+)	Ratio of adjusted net enrolment rate, primary, female versus male (% of primary school age children) (WDI)
Development and political stability	Human development Index (Source: UNDP) GI: Political Stability and Absence of Violence/Terror- ism (WGI)

## XIII. 4 OVERVIEW: MULTIPLE OVERLAPPING DEPRIVATION ANALYSIS (MODA)

The Multiple Overlapping Deprivation Analysis (MODA) was developed by UNICEF. While relative material wealth index used by UNICEF and the DHS Wealth Index mainly rely on households assets as a means to approximate (relative) household wealth, UNICEF has adopted MODA to provide researchers with a more realistic picture of well-being and deprivation at the child level. (Neubourg et al., 2012)

At the heart of the MODA methodology lies the analysis in which developmental areas children are deprived vis-à-vis their peers. These areas differ slightly across age groups, but include at their core Water, Sanitation, Housing and Protection from Violence. For children below age five, Nutrition and Health are additional elements; Information and Education for children aged 6 to 17.

Essentially, the MODA methodology uses the MICS and DHS surveys to check each child's status when it comes to accessing any of these elements. For example, in the area of Sanitation, a child is considered to be deprived if the Household usually uses an unimproved toilet facility (as defined by WHO standards).

The number of deprivations can then be added up for a child to understand the level of deprivations he or she suffers from. We believe that the inclusion of this additional layer of analysis could serve as an important additional predictor for violent discipline approximate some of the interpersonal risk factors (see Table 5).<sup>37</sup>

In this research we will use the sum of severe deprivations that UNICEF calculates via the Cross-Country CC-MODA algorithm. This algorithm allows to directly compare the number and severity of child deprivations across countries.

The respective MODA variables for each child were calculated and provided to the consultant team by UNICEF Research and are based on the calculations and estimates laid out in UNICEF's recent report *Child Poverty in the Arab states* (UNICEF, 2018).

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<sup>37</sup> Namely, the risk factors "Quality of peer relationships inclusions/exclusion from same age networks", "Quality of family relationships inclusion/exclusion from family/kin networks", "Isolation or degree of family isolation".



## XIII. 5 MEASUREMENT OF EARLY CHILDHOOD DEVELOPMENT

The early childhood development module asks if the child is able to perform seven different activities and three behaviours to determine the child's developmental status along the following dimensions:

**Table 9:** Early childhood development skills and behaviours

QUESTION	DIMENSION	CRITERIA FOR ADEQUATE DEVELOPMENTAL STATUS IN DIMENSION <sup>32</sup>
Can (child) identify or name at least ten letters of the alphabet?	Literacy-numeracy	At least 2 skills present
Can (child) read at least four simple, popular words?		
Does (child) know the name and recognize the symbol of all numbers from 1 to 10?		
Can (child) pick up a small object with two fingers, like a stick or a rock from the ground?	Physical	At least 1 skill present
Is (child) sometimes <b>NOT</b> too sick to play? (inverted)	Learning	At least 1 skill present
Does (child) follow simple directions on how to do something correctly?		
When given something to do, is (child) able to do it independently?		
Does (child) get along well with other children?	Social-Emotional	At least 2 behaviours present
Does (child) <b>NOT</b> kick, bite, or hit other children or adults? (inverted)		
Does (child) <b>NOT</b> get distracted easily? (inverted)		

(inverted) denotes that the original question was asked in the negative form (i.e. "is (child) sometimes too sick to play")

A child is considered to be on track in the respective dimension if the criteria shown in the above table is met. A child who is on track in at least three dimensions is furthermore considered to be overall on track with his or her early childhood development.

## XIII. 6 ADDITIONAL SURVEY MODULES AVAILABLE ACROSS COUNTRIES

Each of the surveys follows a set of their respective standard questions (MICS or DHS). Due to the fact that every questionnaire was adapted to the information needs of the target country, not all modules were run in all countries.

**Table 10:** Overview of modules included in the datasets

COUNTRY (YEAR)	MODA	DOMESTIC VIOLENCE	PSYCHOLOGICAL AGGRESSION	WEALTH INDEX
Algeria (2012-13)	✓	✓	✓	✓
Djibouti (2006)	x	x	✓	x
Egypt (2014)	✓	✓	✓	✓
Iraq (2011)	✓	✓	✓	✓
Jordan (2012)	✓	✓	✓	✓
Lebanon (2015-16)	✓	✓	✓	x
Qatar (2012)	x	✓	✓	x
State of Palestine (2014)	✓	x	✓	✓
Sudan (2014)	✓	✓	✓	✓
Syria (2006)	x	x	✓	✓
Tunisia (2011-12)	✓	✓	✓	✓
Yemen (2013)	✓	x	x	✓

## XIII. 7 WEIGHTING

All analyses were conducted using the appropriate survey weights for the child level, which by standard is called slweight. This weight takes the sampling selection for the child discipline module into consideration<sup>39</sup> and adjusts for the probability of inclusion.

It should be noted that the household weights had to be standardized for the DHS: unlike the MICS, this type of survey multiplies each household weight by the number of women in the target group in the respective country. The name of this adjusted weight in the dataset is adjWgt and was used when spooling out the data tables shown in the following chapter (and annex).<sup>40</sup>

As the number of interviews vary strongly between countries, a regional weight was developed to reflect the relative population weight for each country for the data analyses.<sup>41</sup> The name of this regional weight in the dataset is tWgt.

39 From each household only one child is randomly selected for the child discipline module.

40 This weight also recognizes the size of the different refugee populations who presently live in Lebanon. Originally, four different surveys have been conducted with different population groups in the country: Lebanese, Palestinian refugees, Syrian Palestinian refugees and Syrian refugees. Based on the respective population sizes for each group according to the following sources, all surveys were combined into one and each group received the proper population weight: Lebanese Population: State of the World's Children 2017, Refugees from State of Palestine: <http://www.pcbs.gov.ps/site/512/default.aspx?lang=en&ItemID=3013>; Syrian Refugees: <http://data.unhcr.org/syrianrefugees/country.php?id=122>; Syrian Palestinian refugees: <https://www.unrwa.org/syria-crisis>.

41 Source: UNICEF: State of the World's Children 2017, Population estimates.

The base population numbers as well as the resulting regional weight are shown below:

**Table 11: Base population numbers and regional weight**

	POPULATION		SAMPLE		weight	Sample (weighted)
	in 1,000	in %	n	proportion		
ALGERIA	39,872	13.82%	16,875	13.3%	1.04	17,489
DJIBOUTI	927	0.32%	3,189	2.5%	0.13	407
EGYPT	93,778	32.51%	13,487	10.7%	3.05	41,134
IRAQ	36,116	12.52%	27,906	22.1%	0.57	15,842
JORDAN	9,159	3.18%	6,238	4.9%	0.64	4,018
LEBANON	5,851	2.03%	8,579	6.8%	0.30	2,567
LEBANESE NATIONALS	4,639	1.61%	3,901	3.1%	0.52	2,035
PALESTINE REFUGEES	174	0.06%	2,192	1.7%	0.03	77
SYRIAN-PALESTINE REFUGEES	41	0.01%	850	0.7%	0.02	18
SYRIAN REFUGEES	998	0.35%	1,636	1.3%	0.27	438
QATAR	2,482	0.86%	2,781	2.2%	0.39	1,088
STATE OF PALESTINE	4,663	1.62%	6,341	5.0%	0.32	2,045
SUDAN	38,648	13.40%	10,811	8.5%	1.57	16,952
SYRIAN ARAB REPUBLIC	18,735	6.50%	12,847	10.2%	0.64	8,218
TUNISIA	11,274	3.91%	4,086	3.2%	1.21	4,945
YEMEN	26,916	9.33%	13,371	10.6%	0.88	11,806
TOTAL	288,421		126,511			126,511

## XIII. 8 HIERARCHICAL MODELS

### *XIII. 8. 1 Weighting of the Hierarchical Models*

The Hierarchical Logistic Regression Model analysis in chapter VII.4 are based on the unweighted dataset. As the majority of surveys are not self-weighting, it can be expected that the resulting estimates might be slightly biased.

The reason to use unweighted models over weighted ones are the following:

Snijders and Bosker (2012) argue that weights from complex sample designs do not necessarily have to be included in such models if one pursues a model-based analysis approach (rather than a design-based approach). We need to consider that the survey design does not follow any random selection process for the subnational entities – indeed, in the surveys all such entities were included. Moreover, no additional, specific design variables were used to determine the Primary and Secondary Sampling Units: both the Enumeration Areas as well as the Households were chosen purely by random so that all of these have the same probability for inclusion. Therefore, we can conclude that none of the design variables (that are used for calculating the sampling weights) are in any way connected to the outcome variable. That means that we do not expect any confounders associated with the selection of these subnational entities. As we already included the subnational entities as random part into the model, and because all other design variables are independent from the outcome variable, we assume that the residuals in the model are also independent of the design variables used, so that the inclusion of any survey weights – while recommended - is not strictly required (Snijders and Bosker, 2012).

Carle (2009), Rabe-Hesketh and Skrondal (2006) underline that sampling weights should be included if possible, but they also point out that these weights need to reflect all levels of the model. However, in our case the weights for Level 1 (children) are available in the datasets. This presents a major obstacle in calculating the pseudo-maximum likelihood estimates for the model, as this approach requires weights for all levels of the model. Although some efforts were undertaken to extract the appropriate Level 2 weights from the individual weights, the appropriateness of these approaches is debated (Rabe-Hesketh and Skrondal, 2006; Carle, 2009).

Following these arguments, in our case it is not necessarily required to include the survey weights into the model. Moreover, we saw that there is no widely accepted standard for deducing the required Level 2 weights from the available Level 1 weights.

From that backdrop we accept that our current model might be biased, yet also want to exercise caution that the inclusion of the weights into the analysis might also bias the estimates to an unknown degree.

### *XIII. 8. 2 Assessing the influence of sub-national entities*

To understand whether the sub-national entities play any role in the model, we compared the performance of a simple model that disregards these entities with a model that takes this additional layer into account.

If there is no difference between the two models, we would assume that both would yield more or less similar results. In a first step, we tested these hypothesis that the sub-national entities actually matter in understanding violent discipline by producing the below “caterpillar plot”.

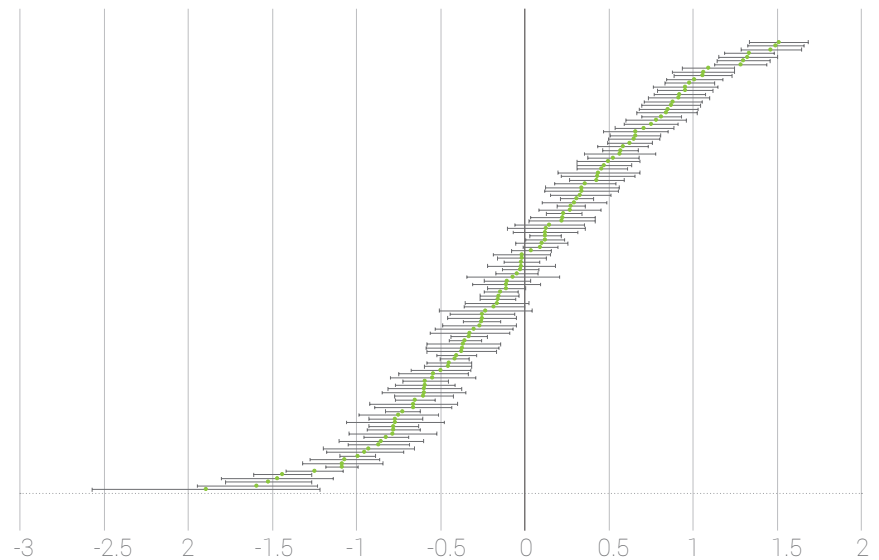
The plot shows the residual for each of the sub-national entities. The confidence intervals (at 95 per cent precision) shown are mostly very narrow due to the large sample sizes for most of these areas. The residuals represent the distance of each region from the overall mean (illustrated as the line at 0). Therefore, sub-national entities that are above the line (and whose confidence intervals do not cross the red line) can be interpreted to have an above-average prevalence of severe physical punishment. The ones below the line can be considered to have a below average prevalence.

If there would be no spatial effect, the majority of the residuals were placed on or very near the 0-line (or the most confidence intervals would overlap it). In our case, however, the plots for severe physical punishment suggest that indeed there is an effect brought about by the sub-national entities (i.e. practices or attitudes).

**Figure 21:** Caterpillar plot for prevalence rates of severe physical punishment for sub-national entities

Subnational entities (HH7) - Intercept

n=113,140 (all countries excluding Yemen)  
 Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization, converged in 3 iterations.



### XIII. 8. 3 Model fit

The following calculations determine the fit of the “Common Model” shown in chapter VII.4. Although the data looks plausible and is in line with scientific findings to date (see chapter VII.1), we need to understand the level of precision which our model is able to predict severe physical punishment. For this we calculate the positive predictive and negative predictive values for the “Common Model”, as it consists of all countries in the dataset.

The first step is to calculate the individual probability of each child to fall victim to severe physical punishment. We do this by inserting the respective values from the model into the following model table.

$$\hat{\pi}_{ij} = \frac{\exp(\beta_{0j} + \beta_{1j}X_{ij} + r_{ij})}{1 + \exp(\beta_{0j} + \beta_{1j}X_{ij} + r_{ij})}$$

Where:

$\hat{\pi}_{ij}$  is the individual probability for a specific outcome; ranges between 0 (no probability) to 1 (certainty).

$X_{ij}$  is the value for the level 1 predictors (“risk factors” at the child, respondent and household level).

$\beta_{0j}$  is the intercept for the  $j$ -th level-2 unit (in this case: subnational entity).

$\beta_{1j}$  is the coefficient associated with  $X_{ij}$  for the  $j$ -th level-2 unit (in this case: subnational entity).

$r_{ij}$  are residuals at the  $i$ -th level 1 (HH or individuals) nested within the  $j$ -th level 2 (subnational entity).

This formula therefore assigns a value between 0 and 1 based on the characteristics or risk factors of the child, respondent, household for each subnational entity. If this prediction value is higher than .5 we predict the outcome did happen– if it is lower, we predict that the outcome did not happen.

The below so-called “Confusion Matrix” for the “Common Model” compares the cases of severe physical punishment observed (in the columns) and how many were predicted (in the rows).

**Table 12: Confusion Matrix (Common Model)**

		OBSERVED IN DATASET	
		Severe physical punishment	No severe physical punishment
PREDICTED BY MODEL	Severe physical punishment	6,874	4,321
	No severe physical punishment	23,431	80,290

To understand the level of precision, we calculate a number of rates: the Positive Predictive Value, the ratio of correctly predicted cases of Severe Physical Punishment is  $6,874 / ((4,321 + 6,874)) = 0.61$ , which essentially means that in 61 per cent of cases the model makes a positive prediction when the actual condition is also positive.

At the same time, the True Positive Rate is .23: which means that of the 30,305 observed cases of severe physical punishment only 23 per cent ( $n=6,874$ ) are correctly identified by the model.

The matrix translates to an overall accuracy of our prediction of:  $(80,290 + 6,874) / 114,916 = 0.76$ .

These findings mean that while the model is able to identify 76 per cent of all cases correctly, it cannot precisely predict the behaviours towards children in more than 25,000 cases. This points to a situation, where our model is still incomplete and that while looking at socio-demographic variables is beneficial, there are other predictors that might influence behaviours.

Based on our earlier deliberations, we believe that – besides these predictor variables – there are other – yet unexplored – local customs and attitudes at play that have a strong impact on traditional sociodemographic predictors when it comes to violent discipline.

## XIII. 9 VARIABLES IN THE FINAL DATASET “FINALDATASET.R”

VARIABLE NAME	LABEL	VALUE LABEL RANGE	LEVEL	NOTES
country	Country	1-15	household	
HH7	Sub-National entity name	(character)	household	
locality	Urban / Rural	1: urban, 2: rural, 3: camp	household	
windex5	Wealth Index Quintiles	1: poorest ... 5: richest	household	
Poor40	Household belongs to the lowest two wealth quintiles?	0: no, 1: yes	household	
HHmembGr	Number of all household members (grouped)	(number)	household	
NrChildGrp	Number of children in household (grouped)	1:1, 2: 2, 3: 3-4, 4: 5-6, 5: 7+	household	
cID	Child line number	(number)	child	
cSex	Biological sex of child	1: male, 2: female	child	
cAge	Age of child	(number)	Child	
cOrphanGrp	Is child (half) orphan?	0: no, 1: yes	Child	
cDropoutDummy	Child dropped out before compulsory grade?	0: no, 1: yes	Child	
<b>cMODA</b>	Number of severe deprivations child suffers from	(number): 0-5	Respondent	No data for Djibouti, Qatar, and Syria
rSex	Respondent's biological sex	1: male, 2: female	Respondent	
rAge	Respondent's Age	(number)	Respondent	
rHiGradeBelowJSS	Has respondent a lower education than LSS?	0: no, 1: yes	Respondent	
<b>DVacc</b>	Domestic violence accepted as justified by at least one woman in the household?	0: no, 1: yes	Household aggregate of all female respondents	Only for Algeria, Egypt, Iraq, Jordan, Qatar, Sudan, Tunisia, and Yemen
vdany	Child experienced: Any violent discipline	0: no, 1: yes	Child	

<b>vdpsy</b>	Child experienced: Psychological aggression	0: no, 1: yes	Child	No data for Yemen
vdpun	Child experienced: Physical punishment	0: no, 1: yes	Child	
vdsev	Child experienced: Severe physical punishment	0: no, 1: yes	Child	
vdnon	Child experienced: Only non-violent discipline	0: no, 1: yes	Child	
adjWgt	Adjusted weight		Child	
tWgt	Total weight		Child	
casPer100k	Casualties per 100,000 population	(numeric)	Sub-national entity	
GI_RuleLaw	Glovrnance Index: Rule of Law: Estimate	(numeric)	Country	
DVLegislation	Legislation exists on domestic violence	0: no, 1: yes	Country	
UmemplPerc TotalLabour Force	Unemployment, total (% of total labour force) (modelled ILO estimate)	(numeric)	Country	
<b>Gini</b>	Gini Coefficient (Economic inequality) for national level	0-100	Country	No data for Qatar
IMRgirlsVsBoys	Ratios: Mortality rate, infant, male (per 1,000 live births) / Mortality rate, infant, female (per 1,000 live births)	(numeric)	Country	
netEnrolRateGirls_Boys	Ratio of adjusted net enrolment rate, primary, female versus male (% of primary school age children)	(numeric)	Country	
HDI	Human development Index (Source: UNDP)	0-100	Country	
GI_PolStab	Glovrnance Index: Political Stability and Absence of Violence/ Terrorism	(numeric)	Country	

**Variable in bold script:** denotes that variable is only available for selected countries.



## XIII. 10 TABULATION OF VIOLENT DISCIPLINE PREVALENCE BY RISK FACTORS

	n (weighted)	ANY VIOLENT DISCIPLINE			PSYCHOLOGICAL AGGRESSION			PHYSICAL PUNISHMENT			SEVERE PHYSICAL PUNISHMENT		
		yes (%)	95% LCI	95% HCI	yes (%)	95% LCI	95% HCI	yes (%)	95% LCI	95% HCI	yes (%)	95% LCI	95% HCI
<b>ALL SURVEYS</b>	126,511	84%	84%	84%	80%	80%	80%	70%	70%	70%	31%	31%	31%
<b>COUNTRY</b>													
Algeria (2012-13)	17,489	86%	86%	87%	81%	80%	82%	71%	70%	72%	23%	22%	24%
Djibouti (2006)	407	72%	67%	76%	57%	52%	61%	67%	62%	71%	22%	18%	26%
Egypt (2014)	41,134	94%	94%	94%	92%	92%	93%	79%	79%	80%	45%	45%	46%
Iraq (2011)	15,842	79%	78%	80%	75%	74%	75%	63%	62%	64%	27%	26%	28%
Jordan (2012)	4,018	90%	89%	91%	88%	87%	89%	66%	65%	68%	21%	20%	22%
Lebanon (2015-16)	2,567	60%	58%	62%	50%	48%	52%	45%	43%	47%	9%	8%	10%
Qatar (2012)	1,088	50%	47%	53%	43%	40%	46%	34%	32%	37%	6%	5%	8%
State of Palestine (2014)	2,045	93%	91%	94%	90%	88%	91%	74%	72%	76%	24%	22%	26%
Sudan (2014)	16,952	65%	65%	66%	54%	53%	55%	49%	48%	50%	14%	14%	15%
Syria (2006)	8,218	89%	88%	89%	84%	83%	85%	78%	77%	79%	24%	23%	25%
Tunisia (2011-12)	4,945	93%	92%	94%	90%	89%	91%	74%	72%	75%	32%	31%	33%
Yemen (2013)	11,806	80%	79%	80%	0%			80%	79%	80%	42%	42%	43%
<b>Details: Lebanon Surveys</b>													
Lebanon residents population survey (2015-16)	2,035	58%	56%	60%	47%	45%	50%	44%	42%	46%	8%	7%	10%
Palestine refugees in Lebanon Survey (2015-16)	77	83%	72%	89%	78%	68%	86%	60%	49%	70%	14%	7%	22%
Palestine refugees from Syria in Lebanon Survey (2015-16)	18	79%	55%	92%	74%	49%	89%	57%	33%	76%	8%	1%	23%
Syrian refugees in Lebanon (2015-16)	438	66%	61%	70%	57%	53%	62%	48%	43%	52%	10%	7%	13%
<b>Biological sex of child</b>													
Male	64,898	85%	85%	86%	82%	81%	82%	72%	72%	72%	33%	33%	34%
Female	61,613	83%	83%	83%	79%	78%	79%	68%	68%	68%	29%	28%	29%
<b>Child: Highest school type attended to date</b>													
Child below age 6	31,673	84%	84%	84%	79%	78%	79%	74%	73%	74%	31%	30%	31%
None	31,304	85%	85%	86%	81%	81%	81%	73%	72%	73%	34%	34%	35%
Primary	61,684	85%	84%	85%	81%	81%	81%	68%	67%	68%	30%	30%	30%
LSS	1,653	59%	57%	62%	52%	49%	55%	42%	40%	44%	17%	15%	19%
HSS	25	29%	13%	47%	26%	11%	43%	19%	8%	38%	4%	0%	17%
Refused/DK	2	86%	33%	100%	66%	33%	100%	64%	6%	94%	4%	0%	67%
<b>Child dropped out before compulsory grade?</b>													
No dropout	122,401	85%	84%	85%	80%	80%	81%	70%	70%	70%	31%	31%	31%
Dropout	4,010	76%	74%	77%	68%	66%	70%	66%	64%	67%	34%	33%	35%
<b>Child age group</b>													
2-4 years old	31,673	84%	84%	84%	79%	78%	79%	74%	73%	74%	31%	30%	31%

5-9 years old	49,649	86%	86%	87%	82%	81%	82%	74%	74%	75%	34%	33%	34%
10-14 years old	45,189	82%	82%	83%	79%	79%	80%	63%	62%	63%	29%	28%	29%
<b>Child's orphan status</b>													
Both parents alive	121,986	85%	84%	85%	81%	80%	81%	71%	70%	71%	31%	31%	32%
Only mother alive	3,406	77%	76%	78%	73%	72%	75%	60%	58%	62%	26%	24%	27%
Only father alive	886	66%	63%	69%	63%	60%	66%	41%	38%	44%	17%	14%	19%
Orphan	126	54%	46%	63%	52%	43%	61%	36%	28%	45%	8%	5%	15%
Unknown	7	72%	35%	94%	62%	35%	94%	67%	35%	94%	39%	14%	77%
<b>Child Disability</b>													
Not disabled	38,425	91%	91%	91%	94%	94%	94%	83%	83%	84%	46%	45%	46%
Disabled	382	65%	60%	70%	63%	56%	69%	57%	52%	62%	32%	27%	37%
Don't know	14	78%	53%	94%	0%			78%	53%	94%	49%	26%	74%
<b>Number of severe deprivations</b>													
0	65,635	89%	89%	89%	86%	86%	87%	73%	72%	73%	34%	33%	34%
1	26,723	86%	85%	86%	83%	82%	83%	73%	72%	73%	34%	33%	34%
2	10,788	76%	76%	77%	66%	65%	67%	66%	65%	66%	31%	30%	32%
3	7,854	69%	68%	70%	55%	53%	56%	58%	57%	59%	24%	23%	25%
4	3,247	64%	62%	65%	45%	43%	47%	52%	51%	54%	25%	24%	27%
5	516	64%	59%	68%	45%	40%	51%	52%	48%	56%	28%	24%	32%
<b>Respondent's biological sex</b>													
Male	20,262	76%	75%	76%	71%	70%	71%	59%	59%	60%	24%	23%	24%
Female	106,177	86%	86%	86%	82%	82%	82%	72%	72%	72%	33%	32%	33%
<b>Age group of respondent</b>													
18-25 years	11,113	84%	84%	85%	79%	78%	80%	74%	73%	75%	34%	33%	35%
26-35 years	51,004	87%	86%	87%	83%	82%	83%	75%	75%	75%	35%	35%	36%
36-45 years	42,539	85%	84%	85%	81%	80%	81%	68%	68%	68%	28%	28%	29%
46+ years	19,875	78%	77%	78%	74%	73%	74%	61%	60%	61%	26%	25%	26%
<b>Respondent: Highest school type attended</b>													
None	39,496	82%	81%	82%	77%	76%	77%	70%	70%	71%	35%	34%	35%
Primary	81,052	86%	86%	87%	83%	82%	83%	71%	70%	71%	30%	30%	31%
LSS	4,426	81%	79%	82%	75%	73%	76%	66%	64%	67%	25%	23%	26%
HSS	1,339	51%	48%	53%	44%	41%	47%	33%	31%	36%	6%	5%	7%
Refused/DK	4	76%	28%	97%	63%	18%	96%	62%	12%	88%	41%	3%	72%
<b>Child needs to be physically punished to be brought up properly</b>													
No	83,728	81%	81%	81%	77%	77%	78%	64%	63%	64%	25%	25%	25%
Yes	39,606	93%	92%	93%	88%	87%	88%	84%	84%	85%	45%	44%	45%
Don't know	2,423	87%	85%	88%	82%	81%	84%	78%	76%	79%	32%	30%	34%
Refused	749	1%	1%	2%	1%	1%	2%	1%	1%	2%	0%	0%	1%
<b>Domestic violence ever justified? (only females aged 15-49)</b>													

Never acceptable for any female in household	44,086	84%	83%	84%	79%	79%	80%	68%	68%	69%	28%	27%	28%
DV acceptable for at least 1 female	43,718	85%	85%	85%	80%	80%	80%	74%	73%	74%	36%	36%	37%
<b># of HH members (grouped)</b>													
1-4	21,753	85%	84%	85%	81%	80%	81%	71%	70%	71%	30%	30%	31%
4-6	50,157	87%	86%	87%	83%	83%	83%	72%	71%	72%	32%	32%	33%
7-9	38,182	82%	82%	83%	77%	77%	78%	68%	68%	69%	30%	30%	30%
10+	16,419	81%	81%	82%	76%	75%	76%	69%	69%	70%	32%	31%	33%
<b># of children (grouped)</b>													
1	7,014	78%	77%	79%	74%	73%	75%	59%	58%	60%	23%	22%	24%
2	24,003	85%	85%	86%	82%	81%	82%	70%	70%	71%	30%	30%	31%
3-4	56,671	86%	86%	87%	83%	82%	83%	72%	71%	72%	32%	32%	33%
5-6	26,453	82%	81%	82%	77%	76%	77%	69%	68%	69%	31%	30%	31%
7+	12,370	81%	81%	82%	74%	73%	75%	71%	70%	71%	33%	32%	34%
<b>HH belongs to poorest 40%</b>													
No	69,984	86%	85%	86%	82%	82%	83%	70%	70%	70%	29%	28%	29%
Yes	52,465	84%	84%	85%	80%	79%	80%	72%	72%	73%	36%	36%	37%
<b>Locality (urban/rural/camp)</b>													
urban	59,556	84%	84%	84%	80%	79%	80%	68%	68%	68%	26%	26%	26%
rural	66,769	85%	84%	85%	80%	80%	81%	72%	72%	72%	36%	35%	36%
camp	186	94%	90%	97%	91%	87%	95%	78%	72%	83%	29%	23%	36%

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