

## **Protocol: Predictors of youth gang membership in low- and middle-income countries: A systematic review**

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## **BACKGROUND**

### **The Problem**

There is evidence of gang violence in low- and middle-income countries in Africa and Asia, and the prevalence of gangs is particularly well documented throughout Central and South America (Decker & Pyrooz, 2010; Gatti et al., 2011). Official estimates of gang membership in Central America estimate approximately 69,000 members, while academic estimates believe this figure to be closer to 200,000 (UNODC, 2007). Some estimates are as high as 500,000 gang members in the region including South America and the Caribbean, and gangs have been identified as “the primary threat to regional stability and security” (Muggah & Aguirre, 2013). While reporting and recording issues make it difficult to estimate rates of gang violence, the homicide rate in Colombia, Brazil, El Salvador and Guatemala are substantially higher than those of European and North American countries (Decker & Pyrooz, 2010; UNODC, 2007). Gangs are also active in South Africa, with an estimate of 100,000 members in Western Cape alone (Reckson & Becker, cited in Decker & Pyrooz, 2010); however, to date, there is limited research examining gangs in Africa and Asia.

Youth gangs are internationally identified with increased rates of delinquency and violent crime (Howell, 1997; Klein, 2002; White, 2002), including trafficking in arms, drugs and (increasingly) humans (Organisation of American States [OAS], 2007). The victims of gang crime are not only non-gang-affiliated individuals and rival gang members, but also include members of the same gang. Gang members are disproportionately involved with serious and violent offences compared to non-gang delinquent youth (Howell, 1998). This suggests that there is something about gang membership which encourages violence, over and above the correlation between having delinquent friends and a previous delinquent history (Battin et al., 1998; Haviland et al., 2008).

Researchers often contest a uniform definition of a youth gang, as it varies by time and place (Howell, Egley, & O'Donnell, n.d.). Notwithstanding these debates, the literature typically describes a gang as comprising between 15 to 100 members, generally aged 12 to 24; members share an identity linked to name, symbols, colours or physical or economic territory; members and outsiders view the group as a gang; there is some permanence and degree of organisation; and there is involvement in an elevated level of criminal activity (Decker & Curry, 2003; see also Esbensen et al., 2001; Howell et al., n.d.; Huff, 1993; Miller, 1992; Rodgers, 1999; Spergel, 1995; Theriot & Parker, 2008). There have been significant efforts amongst academics and policy makers to reach agreement on the definition of a youth gang. The “Eurogang Working Group” (see The Eurogang Project, 2012) consensus definition is as follows: “A street gang (or troublesome youth group corresponding to a street gang elsewhere) is any durable, street-oriented youth group whose involvement in illegal activity is part of its group identity” (Weerman et. al., 2009, p.20). A youth gang is differentiated from an adult gang if the majority of the gang members are aged between 12 and 25 (Weerman et. al., 2009).

Although associated with criminal activity, gangs can offer a sense of belonging and purpose to disenfranchised youth (Howell, 2012; Tobin, 2008). Self-reported reasons for gang membership can include social reasons, protection, and instrumental or financial reasons (Howell & Egley, 2005). For young men living in environments of deprivation, exclusion and violence, having family members in gangs may lead to them learning to 'do masculinity' in a context of "exposure and socialisation into armed groups", particularly where pro-social opportunities are limited (Baird, 2012, p.186). Humiliating levels of deprivation may lead to the search for an extreme public masculinity that provides the gang member with power or 'respect' (Adams, 2012). Gang membership can be viewed as a means to overcome "extreme poverty, exclusion, and a lack of opportunities" (Organization of American States (OAS), 2007, p.5).

*"Youth gangs represent a spontaneous effort by children and young people to create, where it does not exist, an urban space in society that is adapted to their needs, where they can exercise the rights that their families, government, and communities do not offer them. Arising out of extreme poverty, exclusion, and a lack of opportunities, gangs try to gain their rights and meet their needs by organizing themselves without supervision and developing their own rules, and by securing for themselves a territory and a set of symbols that gives meaning to their membership in the group. This endeavour to exercise their citizenship is, in many cases, a violation of their own and others' rights, and frequently generates violence and crime in a vicious circle that perpetuates their original exclusion. This is why they cannot reverse the situation that they were born into. Since it is primarily a male phenomenon, female gang members suffer more intensively from gender discrimination and the inequalities inherent in the dominant culture." (OAS, 2007, p.5)*

In low- and middle-income countries in particular, gang membership has been identified as offering a unique social framework for excluded youth to meet particular social and cultural needs (OAS, 2007); a process that has been described as "filling a social vacuum" (Adams, 2012, p.31).

## **The Predictors**

Extensive research (primarily conducted in high-income countries) has focused on identifying risk and protective factors<sup>1</sup> which may alter the likelihood of youth becoming involved in violent activity. These have been categorised into individual, peer group, family, school, school, and community factors (Decker et al., 2013; Hawkins et al., 2000; Howell, 2012; Howell & Egley, 2005; Katz & Fox, 2010; Klein & Maxson, 2006; O'Brien et al., 2013; Tobin, 2008). These five domains are drawn from developmental psychology, where they are identified as

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Hereafter, for brevity, we will refer to the set of risk and/or protective factors as "predictive factors"

**Table 1. Predictors of gang membership**

Domain	Risk Factors	Protective Factors
Community	<ul style="list-style-type: none"> <li>• Social disorganization, including poverty and residential mobility</li> <li>• Organized lower-class communities</li> <li>• Underclass communities</li> <li>• Presence of gangs in the neighbourhood</li> <li>• Availability of drugs in the neighbourhood</li> <li>• Availability of firearms</li> <li>• Barriers to and lack of social and economic opportunities</li> <li>• Lack of social capital</li> <li>• Cultural norms supporting gang behaviour</li> <li>• Feeling unsafe in neighbourhood; high crime</li> <li>• Conflict with social control institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Short or no history of gang presence</li> <li>• Strict formal and informal control of firearms</li> <li>• Limited neighbourhood congregation sites of unsupervised youth</li> <li>• Absence of drug markets</li> </ul>
Family	<ul style="list-style-type: none"> <li>• Family disorganization, including broken homes and parental drug or alcohol abuse</li> <li>• Troubled families, including incest, family violence, and drug addiction</li> <li>• Family members in a gang</li> <li>• Lack of adult male role models</li> <li>• Lack of parental role models</li> <li>• Low socio-economic status</li> <li>• Extreme economic deprivation, family management problems, parents with violent attitudes, sibling anti-social behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• Family involvement</li> <li>• Consistent parental discipline</li> <li>• Open family communication</li> </ul>
School	<ul style="list-style-type: none"> <li>• Academic failure</li> <li>• Low educational aspirations, especially among females</li> <li>• Negative labelling by teachers</li> <li>• Trouble at school</li> <li>• Few teacher role models</li> <li>• Educational frustration</li> <li>• Low commitment to school, low school attachment, high levels of anti-social behaviour in school, low achievement test scores, identification as being learning-disabled</li> </ul>	<ul style="list-style-type: none"> <li>• Psychosocial support for teachers</li> <li>• Parental involvement in schools</li> </ul>
Peer group	<ul style="list-style-type: none"> <li>• High commitment to delinquent peers</li> <li>• Low commitment to positive peers</li> <li>• Street socialization</li> <li>• Gang members in class</li> <li>• Friends who use drugs or who are gang members</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed peer network of gang and non-gang members</li> <li>• Intimate partner attachment to non-gang affiliate</li> </ul>

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	<ul style="list-style-type: none"> <li>• Friends who are drug distributors</li> <li>• Interaction with delinquent peers</li> </ul>	
Individual	<ul style="list-style-type: none"> <li>• Prior delinquency</li> <li>• Deviant attitudes</li> <li>• Street smartness; toughness</li> <li>• Defiant and individualist character</li> <li>• Fatalistic view of the world</li> <li>• Aggression</li> <li>• Proclivity for excitement and trouble</li> <li>• <i>Locura</i> (acting in a daring, courageous, and especially crazy fashion in the face of adversity)</li> <li>• Higher level of normlessness in the context of family, peer group, and school</li> <li>• Social disabilities</li> <li>• Illegal gun ownership</li> <li>• Early or precocious sexual activity, especially among females</li> <li>• Alcohol and drug use</li> <li>• Drug trafficking</li> <li>• Desire for group rewards such as status, identity, self-esteem, companionship, and protection</li> <li>• Problem behaviours, hyperactivity, externalizing behaviours, drinking, and lack of refusal skills</li> <li>• Victimization</li> </ul>	<ul style="list-style-type: none"> <li>• High level of personal resources</li> <li>• Sense of coherence</li> <li>• Positive, culturally relevant identity</li> </ul>

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Source: Small Arms Survey, 2010, pp.236-237.

**the key domains of influence affecting a young person's behaviour (Howell & Egley, 2005). We recognise that in some instances, a factor may be either a predictor of gang membership or a consequence of having joined a gang. In this review we will distinguish between predictors and correlates of gang membership according to the methodology used in the primary research (for more detail see the 'Study design' subsection of the 'Criteria for inclusion and exclusion of studies').**

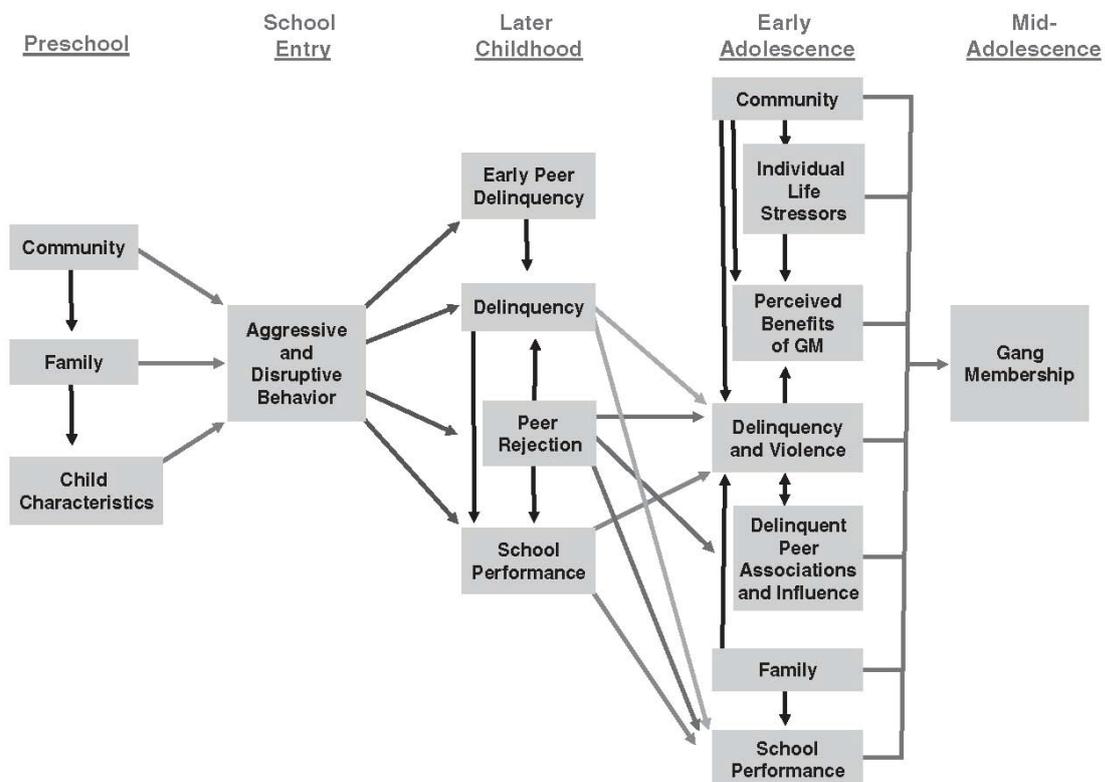
**Individual factors include biological and psychological characteristics identifiable in children from young ages which may increase vulnerability to negative social and environmental influences (Herrenkohl et al., 2000). Peer group factors that may influence youth gang involvement include peer attitudes, delinquency and gang involvement (Dahlberg, 1998; Katz & Fox, 2010; Moser & Holland, 1997; Olate et al., 2012). Family factors refer to both the structural characteristics of families, such as poverty, single-headed households, as well as the way in which children are socialised within families (Blum et al., 2003; Howell & Egley, 2005; Moser & Holland, 1997; Thale & Falkenburger, 2006). School factors include such aspects as children's academic achievement and experiences at school, including exposure to violence (Herrenkohl et al., 2000; Howell & Egley, 2005; Olate et al., 2012). Community factors are the structural and social characteristics of the local environment,**

including neighbourhood levels of crime, firearms and drugs in a neighbourhood (Katz & Fox, 2010; Moser & Holland, 1997; Sanders et al., 2009; Thale & Falkenburger, 2006; Tobin, 2008) as well as factors such as community social disorganisation (Howell, 2012; Howell & Egley, 2005). A summary of predictors of gang membership is shown in Table 1.

Previous research conducted within high-income countries provides evidence of the importance of individual, peer and family domains as predictors of youth gang involvement, whilst relatively weaker evidence exists for the predictive value of school and community factors (O'Brien et al., 2013). The present review seeks to examine whether the relative weight of influence across these domains also applies to youth gang involvement in low- and middle-income countries.

### How the Predictors may Impact Gang Membership

Research indicates that each of the five domains of predictors of youth gang involvement (individual, peer, family, school and community) are most influential at particular times in a child or young person's life, and that a developmental model is useful to identify the key steps towards offending behaviour (Howell & Egley, 2005). Research in high-income countries demonstrates that the predictors of gang involvement cut across all five domains, that youth with multiple risk factors have a proportionately higher risk of gang involvement, and that those youth with risk factors in multiple domains have further increased likelihood of gang involvement (Decker et al, 2013; Howell & Egley, 2005).



**Figure 1: Logic model of predictors of gang membership (Source: Howell & Egley, 2005)**

Building on Thornberry and colleagues' developmental framework of gang membership (Thornberry et al., 2003), Howell and Egley (2005) propose a developmental perspective that incorporates predictors from early childhood through to adolescence. The model is illustrated in Figure 1.

Howell and Egley (2005) argue that the pathway to gang membership for youth at the highest risk begins as early as three or four years of age with conduct problems, school failure in elementary school, followed by delinquency at twelve years of age, gang membership in early adolescence and more serious delinquency from mid-adolescence. We describe Howell and Egley's (2005) developmental model in the remainder of this section.

Howell and Egley's logic model of gang membership (2005) begins with preschool factors, where structural disadvantage and lack of social capital at the community level, combined with family factors such as low human capital, family conflict and poor parenting, and child level risk factors such as aggressive and impulsive temperament, are theorised to lead to conduct disorders at the pre-school stage. These aggressive and disruptive behaviours may lead to rejection by pro-social peers, which may increase the likelihood of early delinquent behaviour and decreased school performance. In later childhood, it is suggested that peer factors become even more important. Early rejection by pro-social peers may increase the likelihood of association with aggressive or delinquent peers, and therefore the likelihood of further delinquent behaviour and the weakening of social bonds. School level factors such as poor grades, low-quality schooling or school policies such as suspension or expulsion, may also increase the likelihood of gang membership due to the weakening of school-student bonds and the potential for increased time without adult supervision.

In early adolescence it is argued that the influence of community level predictors increases. Community factors such as high crime rates, drug use, and concentrated disadvantage may lead to decreased informal social control and decreased community attachment. This may lead to negative life stressors, delinquency, and the perception that gang membership offers benefits to the young person. Negative family characteristics (both structural and social process factors) are theorised to continue to affect young people by decreasing family bonds, increasing delinquency and reducing school performance. School risk factors such as poor academic performance, low aspirations, negative labelling by teachers and feeling unsafe at school may reduce attachment and increase the risk of gang membership. The model suggests that delinquent beliefs and delinquent peers in early adolescence, and individual predictors including substance use, delinquency and life stressors such as violent victimisation further increase the likelihood of delinquency and violence, a key precursor of youth gang membership.

Gang membership is seen as a culmination of interrelated structural and process factors. It is argued that individual, community and structural family characteristics influence early pro-social behaviours and pro-social bonds. In an interactive feedback relationship, antisocial behaviours may decrease pro-social friendships and in turn increase the impact of negative peer attachments and the risk of delinquent behaviours. These social and structural

factors, in combination with negative life events, negative school experiences and a lack of school attachment, may increase the attractiveness of gang membership.

### **Why it is important to do this review**

Understanding the predictive factors associated with youth gang membership is essential to designing empirically-based prevention strategies to reduce the levels of youth gang membership and the incidence of youth gang violence. The proposed systematic review aims to synthesise the research evidence that identifies the pathways to youth gang membership in low- and middle-income countries.

The Campbell Collaboration has previously published two systematic reviews which examine the involvement of young people in gangs (Fisher et al., 2008a, 2008b). The focus of these reviews is preventing youth gang involvement through cognitive-behavioural and opportunities provision interventions, and these two systematic reviews found no studies that met their inclusion criteria. Another review of interventions designed to reduce gang-related crime was conducted by the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre, 2009). These three reviews have not considered the predictive factors of gang membership, and have focused on interventions implemented in high-income countries. Klein and Maxson (2006) conducted a systematic review of the published evidence on risk factors for youth gang membership; however this review again focused on surveys conducted in the United States, Canada and Europe.

We suggest that there are differences in the motivations for participation in gangs between youth in high-income countries and those in low- and middle-income countries. This is evidenced in Olate et al.,'s (2011) cross-cultural study, which identifies significant differences in the predictive factors of youth gang membership between San Salvador and Boston, particularly with regards to early delinquency and violence. Many low- and middle-income countries have experienced in recent decades or are experiencing some form of war or conflict, creating societies that foster youth gang membership. Issues such as a culture of violence, low sense of citizen security, distrust of authorities, poor economic outlook, high accessibility to firearms and drugs, and migration enable the creation and maintenance of gangs in such countries (Cruz, 2007; Davies & MacPherson, 2011; Thale & Falkenburger, 2006). We therefore focus our review on the predictive factors for youth gang membership in low- and middle-income countries, as defined by the World Bank (World Bank, 2013).

This review aims to inform not only the academic literature on the predictive factors associated with youth gang membership, but will also provide a valuable resource for both policy makers and practitioners to assist in designing appropriate preventive interventions for implementation. Preventive gang interventions in low- and middle-income countries are funded and implemented by NGOs, government agencies, international aid agencies, and community organisations. This systematic review has been funded by the United States Agency for International Development (USAID), with the aim of informing best practice in youth gang interventions. USAID supports a variety of preventive anti-gang programs in

Latin America and the Caribbean, including both primary and secondary prevention programs, and argues that evaluation is important to improve programs and build support for crime prevention programs (USAID, 2010b).

By identifying the most important predictive factors of youth gang involvement and disseminating that information to those working in the field, we aim to ensure that policy makers and implementing agencies have access to high quality research when designing their interventions. There is a general lack of evidence on the impact of interventions to prevent youth gang involvement in low- and middle-income countries, therefore it is important to synthesise the available evidence on predictive factors to inform the development of preventive interventions. Essentially, we hope to ensure future prevention efforts are focused on targeting the identified predictors of youth gang membership.

## **Objectives**

The proposed review focuses on the factors associated with membership in youth gangs in low- and middle-income countries. We anticipate that this review will identify multiple predictors of interest.

This review has two key objectives: (1) to synthesise the published and unpublished empirical evidence on the predictive factors associated with membership of youth gangs in low- and middle-income countries; (2) to assess the relative strength of the different predictive factors across the domains of individual, family, school, peer group and community.

## **METHODOLOGY**

### **CRITERIA FOR INCLUSION AND EXCLUSION OF STUDIES**

#### **Characteristics of the studies relevant to the objectives of the review**

This systematic review aims to determine the association between a characteristic of a young person or their environment and their gang membership status. This review will focus on observational studies rather than experimental or quasi-experimental studies, as gang membership is not a characteristic that can be experimentally manipulated. In order to describe the relationship as a predictive relationship, the “predictor” must occur prior to the onset of gang membership or be a time-invariant characteristic. Ideally studies that examine predictors would be longitudinal; however there are few longitudinal studies examining gang membership and most studies in this field are cross-sectional (Thornberry, 1999). We will utilise cross-sectional studies, but we will classify time-variant factors as “correlates” in this instance, as it can be difficult to determine if a time-variant predictor is a true antecedent of the outcome if the study is not longitudinal (Murray et al. 2009). The review is conducted alongside a broader project on conduct problems and crime in low- and middle-income countries (Murray et al., 2013).

## **Types of participants**

There is a general agreement amongst researchers that most members of youth gangs are aged between 12 and 24 years of age (Howell et al., n.d.; Huff, 1993; Rodgers, 1999; Seelke, 2013). However, we extend the age range to include studies where the participants are aged between 10 and 29, in part because formal definitions of youth vary across countries, and in part to ensure that the age range is broad enough to ensure that studies that retrospectively examine gang membership within a short timeframe are not excluded.

We will adopt a broad definition of youth gang membership. We acknowledge that there is no clear international consensus definition of youth gangs. As such, we will accept youth gangs as defined by the Eurogang definition, as it offers a more descriptive definition: "a street gang (or troublesome youth group corresponding to a street gang elsewhere) is any durable, street-oriented youth group whose involvement in illegal activity is part of its group identity" (Weerman et. al., 2009, p.20). Likewise we will accept author definitions of youth gangs. We exclude groups described as organised crime gangs, terrorist gangs and piracy gangs.

This review is focused on the predictive factors for youth gang membership in low- and middle-income countries; therefore, we will only include studies that take countries that have been classified by the World Bank as low- and middle-income countries for at least 50% of the time since 1987, when recordings start (World Bank, 2013).

## **Types of predictors**

To be considered a true predictor, a risk factor needs to be present prior to the outcome occurring, making longitudinal designs the optimal study method for identifying predictive factors (Farrington & Loeber, 2000). However, many studies of gang-involved youth use a cross-sectional study design, in which some factors are retrospectively reported or are clearly in existence prior to gang involvement (for example, sex, ethnicity), whilst some factors are only measured once the young person is already in a gang (for example, family conflict, expulsion from school). We recognise that measuring the predictor at the same time as measuring the outcome has the potential to conflate the causes of gang membership with the results of gang membership (Klein & Maxson, 2006).

We will classify *predictors* as those factors that are either:

1. estimated from prospective longitudinal studies at a time prior to the onset of gang membership, or
2. estimated from cross-sectional studies and the factor is time-invariant (eg. sex), or
3. estimated from longitudinal or cross-sectional studies and the factor has been reported retrospectively to a time prior to onset of gang membership (e.g. number of family members who were gang members when the respondent was aged 10, parent's marital status when the respondent was aged 5).

4. estimated from a case-control study where predictive factors are assessed retrospectively for samples of gang members (cases) and non-gang members (controls).

We will classify *correlates* as those factors that are either:

1. estimated from longitudinal studies at a time after the onset of gang membership, or
2. estimated from cross-sectional studies without retrospective reporting to a time prior to the onset of gang membership.

We follow Klein and Maxson (2006) in including these cross-sectional studies in order to retain more sources of evidence in our review; however, we will synthesise the effect sizes for predictors and correlates separately.

We will exclude predictors that are conglomerations of multiple constructs, such as Raine et al. 's (1996) measure of biosocial risk, which combines measures of marital conflict, maternal rejection, family instability, parental crime, neurological problems, and slow motor development.

The review focuses on the factors associated with membership in youth gangs in low- and middle-income countries. We anticipate that this review will identify multiple predictors of interest and each will be analysed separately.

### **Types of outcome measures**

The outcome of interest is membership in youth gangs. We will code outcomes related to individual youth participation in gangs, including self-reported, peer-reported, family-reported, practitioner-reported, or police-reported measures of youth gang membership. We will perform moderator analysis to identify heterogeneity due to different methods of recording gang membership.

### **Study design**

For inclusion in the review, studies must use a sample where there is variability in the levels of gang membership, including youth who are not gang-affiliated. For example, the sample may include young people who are gang members, young people who are not gang members, and young people who are ex- gang members. We will include observational longitudinal studies, cross-sectional studies, case-control studies, and epidemiological studies, as long as they include a subsample of young people who are not gang members. Studies must provide a bivariate or multivariate assessment of the relationship between a predictor and gang membership.

We will not include studies that report only on the characteristics of a youth gang sample with no reference to a comparison group. In such studies there is no way to demonstrate that gang-involved and non-gang-involved youth differ on these measures. While single case studies and ethnographies capture details of the lived experience and individual pathways,

they are not appropriate for inclusion in this review as there is no comparison group to determine what is unique about gang members when compared to non-gang members.

All participants must have been recruited through random, stratified probability or total sampling. A study is eligible if it includes participants recruited in an institutionalized or specialized setting (e.g. detention centre) if there is also a comparison group recruited from the community through random, stratified probability, or total sampling within both groups.

To be eligible for inclusion in a meta-analysis, the study must report an effect size, or provide sufficient detail such that an effect size can be calculated.

### **Exclusion Criteria**

We will exclude studies from countries that have not been categorised as low- or middle-income by the World Bank for at least 50% of the time since 1987.

### **Example of studies that might be eligible for inclusion in the review**

We anticipate that many of the research designs will be retrospective comparisons of the histories of gang youth compared to non-gang youth, or prospective studies of youth where gang membership is identified as an outcome state. The analyses in these studies are likely to be either comparisons of the level of selected predictors or correlates across levels of gang membership, or multiple regression designs with level of gang membership as the dependent variable.

Our preliminary investigations have identified several examples of eligible studies conducted in low- and middle-income countries. Katz and Fox (2010) examined the risk and protective factors associated with gang-involved youth in Trinidad and Tobago. Surveying a cross section of 2,206 school students, the authors examined thirty risk factors and thirteen protective factors between non-gang, current and former gang-involved youth through a multinomial logistic regression. Predictive factors were grouped into community (e.g. mobility, neighbourhood attachment and perceived availability of drugs and hand guns), school (e.g. commitment, academic achievement), family (e.g. conflict, parental attitudes) and peer-individual factors (e.g. perceptions of drug and alcohol use, depression, antisocial peers). A second example study considers gang involvement in China, through a cross sectional survey of 2,245 high school students (Pyrooz & Decker, 2013). The authors utilise independent sample t tests and Chi<sup>2</sup> tests to compare non-gang and gang youth across a number of factors, including age, gender, minority status, parents education, household strain, self-control, school attachment and performance, parental attachment and monitoring and peer associations. A study by Olate and colleagues (2012) used a similar methodology, conducting a cross-sectional survey of 174 young people in San Salvador. The authors used independent sample t tests and Chi<sup>2</sup> tests to compare high-risk non-gang-involved youth to gang-involved youth on a number of demographic variables and risk factors, categorised into individual, family, school, peer and community domains.

## SEARCH METHODS FOR IDENTIFICATION OF RELEVANT STUDIES

The search for eligible studies is conducted as part of a broader project systematically reviewing literature on conduct problems and crime in low- and middle-income countries (Murray et al., 2013). The search strategy will include published and unpublished literature with no date constraints. We will also not place any language restrictions on the eligibility of documents; however our search will be conducted in English, French, Chinese, Arabic, Russian, Spanish and Portuguese. The geographic location of studies will be limited to countries located in a LMIC, defined according to the World Bank<sup>2</sup> as low- or middle-income at least 50% of the time since 1987, when the recordings start<sup>3</sup>. The countries and regions included as low- and middle-income are shown in Table 1.

**Table 1. Countries classified as "low- and middle-income" and their corresponding region**

Regions	Countries
East Asia and Pacific	American Samoa; Cambodia; China; Fiji; Guam; Indonesia; Kiribati; Korea, Dem. Rep.; Lao, People's Dem. Rep; Macao SAR, China; Malaysia; Marshall Islands; Micronesia, Fed. Sts; Mongolia; Myanmar; New Caledonia; North Mariana Islands; Palau; Papua New Guinea; Philippines; Samoa; Solomon Islands; Thailand; Timor-Leste; Tonga; Vanuatu; Vietnam
Europe and Central Asia	Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Croatia; Cyprus; Czech Republic; Czechoslovakia (former); Georgia; Greece; Hungary; Isle of Man; Kazakhstan; Kosovo; Kyrgyz Republic; Latvia; Lithuania; Macedonia, Former Yugoslav Rep.; Malta; Moldova; Montenegro; Poland; Portugal; Romania; Russian Federation; Serbia; Serbia and Montenegro (former); Slovak Republic; Slovenia; Tajikistan; Turkey; Turkmenistan; Ukraine; USSR (former); Uzbekistan
Latin America and the Caribbean	Antigua and Barbuda; Argentina; Aruba; Barbados; Belize; Bolivia; Brazil; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Netherlands Antilles (former); Nicaragua; Panama; Paraguay; Peru; Puerto Rico; St Kitts and Nevis; St Lucia; St Vincent and the Grenadines; Suriname; Trinidad and Tobago; Uruguay; Venezuela, RB
Middle East and North Africa	Algeria; Djibouti; Egypt, Arab Rep.; Iran, Islamic Rep.; Iraq; Jordan; Lebanon; Libya; Morocco; Oman; Syrian Arab Rep.; Tunisia; West Bank and Gaza; Yemen, Rep.
South Asia	Afghanistan; Bangladesh; Bhutan; India; Maldives; Nepal; Pakistan; Sri Lanka

<sup>2</sup> <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>

<sup>3</sup> This approach ensures that we include countries which have consistently been ranked as LMIC. For the vast majority of countries there has been very little change in status over the last few decades, therefore rather than cross-referencing countries against categorisations in the year the study was conducted, it is more efficient to establish the list of countries that meet 50% criteria. All excluded countries had either been consistently ranked as high-income or had moved from upper-middle-income to high-income during this period.

Regions	Countries
Sub-Saharan Africa	Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Congo, Rep.; Cote d'Ivoire; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mayotte; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; South Sudan; Sudan; Swaziland; Tanzania; Togo; Uganda; Zambia; Zimbabwe

## Search terms

This systematic review is conducted as part of a larger project focusing on conduct problems and crime in low- and middle-income countries (Murray et al., 2013) and alongside a systematic review on preventive interventions targeting youth gang violence in low- and middle-income countries (Higginson et al., 2013). The search terms are broad enough to capture both the corpus of intervention studies and the corpus of predictive studies, with further refinement occurring at the abstract and title screening stage for each review.

The search strategy was developed using the Cochrane Collaboration's Effective Practice and Organisation of Care Group search strategy for low- and middle-income countries, combined with selected MeSH/DeCS terms and free text terms relating to conduct problems, crime and violence. To maximise sensitivity, no methodological filters were used. The full search strategy is listed in Appendix A.

## Search locations

We searched a wide range of electronic academic databases, international organisation databases, the websites of NGOs and other organisations. All locations were searched electronically. The search locations are listed in Table 2.

**Table 2. Search locations used in the English language systematic search (hosting platforms in parentheses)**

Search Locations
PsycINFO (Ovid) 1967 to 2013
Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1946 to Present
EMBASE (Ovid) 1974 to 2013 Week 35
CINAHL (EBSCOhost)
EconLit (EBSCOhost)
Criminal Justice Abstracts (EBSCOHost)
Russian Academy of Sciences Bibliographies (EBSCOHost)
Sociological Abstracts + Social Services Abstracts (ProQuest)
Applied Social Sciences Index and Abstracts (ProQuest)
International Bibliography of the Social Sciences (IBSS) (ProQuest)
ERIC (ProQuest)
Web of Science
LILACS (Note: included Spanish and Portuguese search terms)
SciELO (Note: included Spanish and Portuguese search terms)
National Criminal Justice Reference Service Abstracts Database

## Search Locations

JOLIS (IMF, World Bank and International Finance Corporation)  
World Bank  
Open Grey  
ProQuest dissertations  
Pakistani Journal of Criminology  
African Journal of Criminology and Justice Studies  
Asian journal of Criminology  
Indian Journal of Criminology  
South African Journal of Criminal Justice  
South African Crime Quarterly  
Turkish Journal of Criminology  
Journal of Gang Research  
NBER  
IDEAS  
International Juvenile Justice Observatory (IJJO) Documentation Center  
United Nations Development Programme website  
WHO Collaborating Centre for Violence Prevention website ([www.preventviolence.info](http://www.preventviolence.info))  
Don M. Gottfredson Library of Criminal Justice Gray Literature Database

Table 3 shows the locations searched in languages other than English. Due to the nature of database interfaces, the searches in these databases were less systematic. The outcome search terms were used and, where possible, the search terms for child and youth age groups.

**Table 3. Search locations used in the non-English language systematic search**

Language	Search Locations
Arabic	Index Medicus for the Eastern Mediterranean Region King Saud University Repository YU-DSpace Repository Google Scholar
Chinese	China National Knowledge Infrastructure (CNKI) Wanfang Data Chongqing VIP Information Company (CQVIP) BabelMeSH – National Institutes of Health Google Scholar
French	African Index Medicus (WHO) Afrolib (WHO) Global Health Library Revue de Médecine tropicale Refdoc Google Scholar
Russian	Elibrary.ru Google Scholar
Spanish and Portuguese	LILACS SciELO Google Scholar

The non-English language searches were conducted by a team of six researchers (four native speakers and two speaking the search language fluently).

If dissertations are located that are potentially eligible for inclusion we will contact the author or their institution for a copy of the document. We will conduct citation searches of eligible tracking and citation harvesting from the references of included studies. We will contact members of the Advisory Group as well as other prominent scholars in the field to locate further studies that may not yet be published or located in our search. Any new literature of interest will be obtained and assessed for eligibility.

## **DATA COLLECTION AND ANALYSIS**

### **Selection of Studies**

#### ***Title and abstract screening***

The results of each search will be imported into EndNote reference management software where the initial title and abstract screening will take place.

A team of six trained research assistants will use a set of preliminary eligibility criteria to assess, on the basis of titles and abstracts, whether the studies returned from the systematic search are potentially eligible for inclusion in the systematic review. Due to the large number of studies identified in the wider English language search, and the specialised language skills required to screen the studies in the non-English language search, each title and abstract will be screened by only one reviewer. One research assistant with native (or near- native) language fluency will screen all of the studies from their allocated language in collaboration with one of the review authors, who will screen all of the English language studies.

The title and abstract screening inclusion criteria are:

1. all participants are 10-29 years old
2. located in a LMIC, defined according to the World Bank as lower or middle income at least 50% of the time since 1987, when the recordings start
3. all participants recruited through random, stratified probability, or total sampling
4. included a community comparison group if the sample was selected from within prison or juvenile detention centres
5. assessed the association at the level of an individual between at least one specific predictor and gang membership
6. predictor is a single characteristic and does not include conglomerations of multiple constructs
7. longitudinal study, cross-sectional study, or case-control study: comparison of a group with the outcome (gang membership) and those without the outcome

Documents will be excluded if the answer to any one of the criteria is unambiguously “No”, and will be classified as potentially eligible otherwise. We will err on the side of inclusivity and only exclude studies where it is clear that these criteria are not met.

### ***Full text eligibility screening***

Once the title and abstract screening has taken place in EndNote, the group of studies that are potentially eligible will be imported into SysReview, a Microsoft Access database designed for screening and coding of documents for systematic reviews. The full text document will be located for all studies screened as potentially eligible at the title and abstract stage, and attached to SysReview.

In order to narrow down the results of the initial search to the subset of studies that specifically focus on the predictors of involvement in youth gangs, different criteria are included at the full text eligibility screening stage.

A team of trained research assistants will use a set of inclusion criteria to assess, on the basis of titles and abstracts, whether the studies returned from the systematic search are potentially eligible for inclusion in the systematic review. After training to ensure that each reviewer is adopting the same approach to screening, each document will be screened by only one reviewer. The training will include a comprehensive briefing by the review manager, including reading and discussion of the protocol, followed by each reviewer independently screening a set of 20 studies. The results of the initial screening of the training corpus will then be mediated by the review manager, in consultation with the full review team. Further blocks of 20 studies will be reviewed independently by each member of the review team, and mediated by the review manager. Once the review team reaches an agreement rate of above 95 per cent, the subsequent screening of each document will be conducted by only one reviewer. Any issues or questions that arise during coding will be discussed amongst the review team and the review manager, and the review manager will randomly check screening decisions to ensure consistency.

The full text eligibility screening criteria are:

1. reports on youth gangs
2. all participants are 10-29 years old
3. located in a LMIC, defined according to the World Bank as lower or middle income at least 50% of the time since 1987, when the recordings start
4. assessed the association at the level of an individual between at least one specific predictor and gang membership
5. predictor is a single characteristic and does not conglomerations of multiple constructs
6. all participants recruited through random, stratified probability, or total sampling
7. included a community comparison group if the sample was selected from within prison or juvenile detention centres
8. uses a longitudinal study, cross-sectional study, or case-control study design, comparing gang members and non-gang members

Documents will be eligible for detailed coding and inclusion in the meta-analysis if they are coded as “Yes” across all criteria, and are not considered eligible if they are coded as “No” for any criterion.

### **Data Extraction**

Trained research assistants will use the SysReview database, along with a detailed coding companion document, to code in detail the documents that are eligible for inclusion in the meta-analysis. The coding fields are shown in Appendix B, including information on study information, sample characteristics, study quality, outcomes reported, and effect size data.

The team of research assistants will be trained on coding and will each code a corpus of 10 eligible studies independently. All coding conducted during training will be double checked by the review manager to ensure accuracy and consistency of information capture. For the final coding, all coding and effect size data will be checked by a second reviewer who is not blinded to the initial coding. Coding discrepancies will be resolved by discussion between reviewers, in consultation with the review manager if required. For data from between-groups studies, relevant data will be input into Comprehensive Meta-Analysis software (Borenstein, Hedges, Higgins & Rothstein, 2005) to calculate standardized effect sizes and their standard errors.

We will code all predictors identified in the primary studies, and categorise them according to the framework of individual, peer group, family, school, and community factors, following the conceptualisation shown in Table 1. We will consult with members of the Advisory Group if predictors are identified that do not clearly fall into one of the five domains.

Following Lipsey & Derzon (1999) and in line with the developmental framework of Howell and Egley (2005) and Thornberry and colleagues (2003) we will also categorise predictors according to the age of the respondent at the time of measurement, as different factors may have stronger influence during particular developmental periods; for example, if the absence of a male role model is a predictor of interest, it may have a stronger impact if measured at the age of 12 than it does at the age of 3. If there is sufficient data we will conduct moderator analyses to assess whether the effects of the predictor differ during different developmental stages.

### **Assessment of methodological quality and risk of bias**

We will assess risk of bias using a series of questions listed in the coding fields shown in Appendix B under Risk of Bias. The quality of each study will be assessed by two reviewers, and the results of the two assessments will be mediated by the review manager, who will not be blind to the original quality assessment. Coding discrepancies will be resolved by discussion between reviewers, in consultation with the review manager. These items will assess the quality of the sampling, the measurement of items, and the timing of the measurements to ensure that the predictor did indeed occur before gang membership. When assessing risk of bias we will not allocate a score or index, as extreme failure in one area can

be more serious than minor breaches of quality across multiple arenas. We will not exclude studies on the basis of risk of bias assessment, but will conduct moderator analysis to determine whether inclusion of studies with higher risk of bias impacts on the summary effect size. We will present the results of the assessments in a “traffic light” format (see de Vibe et al., 2012).

## **STATISTICAL PROCEDURES AND CONVENTIONS**

### **Effect size metric and calculations**

For studies that measure the difference on a predictor between a gang-involved and a non-gang-involved youth (i.e., case-control designs), we will calculate Hedges’  $g$  or the log odds ratio. For continuous predictors we will use Hedges’  $g$  as the measure of effect size, as it includes an adjustment for estimator bias in smaller samples (Borenstein et al., 2009). If binary predictors are found we will calculate a log odds ratio as the measure of effect size. For studies that report the raw unadjusted correlation between a predictor and gang membership, we will convert Pearson’s  $r$  to Fisher’s  $z$  to perform calculations (Borenstein et al., 2009). Final results will be transformed back into  $r$  for ease of interpretation.

Ideally, when synthesising the results of multiple regression studies, we are interested in the partial effects of the predictors, after controlling for an appropriate set of covariates. However, we expect that different regression studies may use different sets of covariates and therefore estimating the partial effects of a predictor variable under different conditions. For studies that report predictors using a multiple regression model, we will select the most appropriate effect size depending on the literature. We anticipate that for studies using multiple regression models that we will calculate either the semi-partial correlation coefficient (Aloe & Thompson, 2013) or Cohen’s  $d$ . We will also code the covariates in the multiple regression model and, if there is sufficient data, we will perform a moderator analysis to determine the extent to which the effect size is affected by the use of particular covariates. Alternately, if the zero-order correlations are reported for each study we will synthesise the results of bivariate correlations,  $r$  and conduct sensitivity analysis to compare the effect on the overall effect size using partial regression coefficients or using bivariate correlations.

We will input the effect size data into Comprehensive Meta-Analysis software (Borenstein et al., 2005) to allow the calculation of standardized effect sizes and their standard errors, and the conversion between effect size types, to ensure that a common metric is used. Following Hawkins and colleagues (2000) we will convert all effect sizes to the log odds ratio as a common effect size for synthesis and present results as the odds ratio, as it represents the amount of increased or decreased risk in an intuitive metric. Although converting different effect sizes to a common metric is imperfect, it is preferable to conducting multiple separate meta-analyses (Borenstein et al., 2009).

### **Criteria for determination of independent findings**

There are two issues of independence that will need to be addressed in this review. The first is that documents may report on multiple studies, which may in turn report multiple predictors or outcomes. Documents will be allowed to contribute multiple effect sizes, but only one effect size for each predictor/outcome relationship. If a study reports multiple effect sizes for the one predictor or outcome, the mean effect size for will be calculated using Comprehensive Meta-Analysis 2.0 (Borenstein et al., 2005).

The second issue of independence is that multiple documents may report on the same data. In these instances, we will seek to identify which documents are related, and we will assess all sources in order to select an effect size. This assessment will be based on the completeness of the data and the risk of bias assessment of the studies, and all decisions will be reported in the final review.

### **Missing data**

We will use reported statistics such as *t*, *F*, *p* or *z*-values to convert to effect sizes if effect size data is not reported in the between-groups studies. If data required to compute effect sizes is missing, we will attempt to contact the authors of the studies.

### **Method of synthesis**

If the systematic search results in at least two studies that provide effect sizes for a conceptually equivalent predictor we will conduct a random-effects meta-analysis with inverse variance weighting to calculate an overall weighted mean effect estimate for each predictor-outcome association. We will present the results of the meta-analyses in forest-plots with 95 per cent confidence intervals.

If statistical meta-analysis is not possible due to small numbers of effect sizes in each category, we will present the effect sizes and 95 per cent confidence intervals from each study in a forest plot without providing an overall summary of effect sizes.

Where a factor has been measured as both a correlate and a predictor, we will synthesise the effect sizes separately.

We also aim to categorise each predictor into the domains of individual, peer, family, school and community, and perform a meta-analysis for each of these domains, using the summary effect sizes from each individual predictor. We will use forest plots with 95 per cent confidence intervals to present the results.

### **Assessment and investigation of heterogeneity**

We will test for heterogeneity in the meta-analyses using  $I^2$ ,  $\tau^2$  and  $Q$  statistics, following Borenstein et al (2009).

We will code a range of study-level moderators that we expect would have an impact on the effect size. We will test the effect of key variables on the heterogeneity of the predictor impact. For the meta-analysis we will assess heterogeneity using moderator analysis for categorical predictors and meta-regression for continuous predictors. We anticipate that we will perform moderator analysis using population (e.g. school based samples, gender specific, age specific), geographic region (e.g. Latin America, Sub-Saharan Africa, South-East Asia etc), measure of gang involvement (e.g. gang membership, gang affiliation, involvement in gang-related crime, ex-gang member), the use of covariates in regression models, the age at which the predictor is measured, the method of recording gang membership (e.g. self-report, peer-report etc), and the risk of bias. We will distinguish in the final review between a priori planned analyses (those listed in the protocol) and post hoc analyses identified only during the analytic stage.

### **Sensitivity analysis**

We will conduct subgroup analyses in order to assess the impact of study quality and study design. Using moderator analysis for categorical variables, and meta-regression for continuous variables, we will perform sensitivity analysis on the effect of risk of bias, publication status, publication year, the use of partial regression coefficients versus bivariate correlation coefficients, and geographic level of analysis.

### **Assessment of publication bias**

For the between-groups meta-analyses we will test and adjust for publication bias using funnel plots and trim-and-fill analysis as suggested in Rothstein et al., (2005). We will seek advice on methods for assessing publication bias in model-based meta-analysis.

### **Treatment of qualitative research**

We will not use qualitative research to evaluate the predictors of youth gang membership.

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## **DECLARATIONS OF INTEREST**

None of the authors have any known conflict of interest.

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## **ROLES AND RESPONSIBILITIES**

- Content: Angela Higginson, Joseph Murray, Lorraine Mazerolle, Laura Bedford, Kathryn Benier
- Systematic review methods: Angela Higginson, Joseph Murray, Yulia Shenderovich
- Statistical analysis: Angela Higginson
- Information retrieval: Yulia Shenderovich, Kathryn Benier, Laura Bedford

## **PRELIMINARY TIMEFRAME**

Search for published and unpublished studies	October – December 2013
Relevance assessments and coding	December 2013 - January 2014
Statistical analysis	January – February 2014
Initial results available for presentation	February 2014
Preparation of report	February 2014
Submission of completed report	July 2014

## **PLANS FOR UPDATING THE REVIEW**

The authors plan to update the review every five years.

## **AUTHORS' RESPONSIBILITIES**

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You accept responsibility for maintaining the review in light of new evidence, comments and criticisms, and other developments, and updating the review at least once every five years, or, if requested, transferring responsibility for maintaining the review to others as agreed with the Coordinating Group.

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Form completed by: Angela Higginson

Date: 15 July 2014

## Appendix A: Search strategy structure

**A AND B AND D**

or

**C AND D**

Concept	Search terms
A	aggression antisocial behaviour behavior disorder behavior problem bullying conduct disorder conduct problem crime criminal behavior disruptive behaviour disorder externalising externalizing gang homicide oppositional defiant disorder school violence social behavior disorders violence violent crime workplace violence
B	child youth infant baby toddler adolescent teenager
C	juvenile delinquency child behavior disorders school violence

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D

Africa or Central Africa or Latin America or Caribbean or West Indies or Eastern Europe or Soviet or South America or Arab or Middle East or Latin America or Central America

Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timor or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovian or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadzhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia

LMICs

developing/less developed/under developed/underserved/deprived/poor countries

transitional countries

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Database	Search strategy
PsycINFO (Ovid) 1967 to 2013	<p>developing countries/  (Africa or "Latin America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or "South America" or "Middle East" or "Latin America" or "Central America").hw,ti,ab.  (Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldovia or Moldovian or Mongolian or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).hw,ti,ab,cp.  ((developing or less* developed or under developed or underdeveloped or middle income or low* income or underserved or under served or deprived or poor* or foreign) adj (countr* or nation? or population? or world or region*)).hw,ti,ab.  ((developing or less* developed or under developed or underdeveloped or middle income or low* income) adj (economy or economies)).hw,ti,ab.  (lmic or Imics or third world or lami countr*).hw,ti,ab.  transitional countr*.hw,ti,ab.  OR/1-8</p> <p>antisocial behavior/ OR  conduct disorder/ OR  exp behavior problems/ OR  behavior disorders/ OR  impulse control disorders/ OR  adjustment disorders/ OR  violence/ OR  exp violent crime/ OR  workplace violence/ OR  crime/ OR  criminal behavior/ OR  crime.mp. OR  crimes.mp. OR  criminal*.mp. OR</p>

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exp homicide/ OR  
homicid\*.mp. OR  
exp perpetrators/ OR  
attack behavior/ OR  
acting out/ OR  
exp gangs/ OR  
gang.mp. OR  
gangs.mp.  
exp bullying/ OR  
bully\*.mp. OR  
aggress\*.mp. OR  
aggressive behavior/ OR  
(conduct adj1 problem\*).mp. OR  
(behavio?r adj1 problem\*).mp. OR  
(conduct adj1 disorder\*).mp. OR  
(behavio?r adj1 disorder\*).mp. OR  
(antisocial adj1 behavio?r\*).mp. OR  
(anti-social adj1 behavio?r\*).mp. OR  
(oppositional adj1 defiant adj1 disorder\*).af. OR  
(disruptive adj1 behavio?r adj1 disorder\*).af.  
(externalizing adj1 behavio?r adj1 problem\*).mp.  
externalizing.mp.  
externalising.mp.  
externalized.mp.  
externalised.mp.  
externaliz\*.mp.  
externalis\*.mp.  
(childhood adj1 externalizing adj1 behavio?r).mp.  
(externalizing adj1 behavio?r).mp.  
(externalising adj1 behavio?r).mp.

11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22

10 and 23

exp [Childhood Development](#)/  
Adolescent development/  
Child Welfare/  
Child Care/  
baby.ti,ab.  
babies.ti,ab.  
toddler.ti,ab.  
toddlers.ti,ab.  
adolescen\*.ti,ab.  
adolescent.ti,ab.  
adolescents.ti,ab.  
adolescence.ti,ab.  
child\*.ti,ab.  
child.ti,ab.  
children\*.ti,ab.  
childhood\*.ti,ab.  
childhood.ti,ab.  
youth\*.ti,ab.  
youth.ti,ab.  
youths.ti,ab.  
student\*.ti,ab.  
Students.ti,ab.  
Student.ti,ab.  
teen\*.ti,ab.  
teenager.ti,ab.  
teenagers.ti,ab.

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boy.ti,ab.  
boys.ti,ab.  
girl.ti,ab.  
girls.ti,ab.  
pupil.ti,ab.  
pupils.ti,ab.  
pupil\*.ti,ab.  
youngster\*.ti,ab.  
youngster.ti,ab.  
youngsters.ti,ab.  
juvenile\*.ti,ab.  
juvenile.ti,ab.  
juveniles.ti,ab.  
Infant\*.ti,ab.  
infant.ti,ab.  
infants.ti,ab.  
young adj1 adult\*.ti,ab.

30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41

28 and 42

Or/ 47-

AND

exp juvenile delinquency/  
(juvenile adj1 delinquen\*).mp.  
school violence/

or/

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**Ovid  
MEDLINE(R) In-  
Process & Other  
Non-Indexed  
Citations and  
Ovid  
MEDLINE(R)  
1946 to Present**

Developing Countries.sh.  
(Africa or Central Africa or Latin America or Caribbean or West Indies or Eastern Europe or Soviet or South America or Arab or Middle East or Latin America or Central America).hw,kf,ti,ab,cp.  
(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timor or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or

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Swaziland or Syria or Tajikistan or Tadzshikistan or Tadjikistan or Tadzhhik or Tanzania or Thailand or  
Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or  
Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist  
Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet  
Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).hw,kf,ti,ab,cp.  
((developing or less\* developed or under developed or underdeveloped or middle income or low\*  
income or underserved or under served or deprived or poor\* or foreign) adj (countr\* or nation? or  
population? or world or region\*)).ti,ab.  
((developing or less\* developed or under developed or underdeveloped or middle income or low\*  
income) adj (economy or economies)).ti,ab.  
(Imic or Imics or third world or lami countr\*).ti,ab.  
transitional countr\*.ti,ab.  
or/1-8

juvenile delinquency.sh.  
(juvenile adj1 delinquen\*).mp.  
"Child Behavior Disorders".sh.  
(school adj1 violence).mp.  
(childhood adj1 externalizing adj1 behavio?r).mp.  
or/

Social Behavior Disorders.sh.  
conduct disorder.sh.  
(conduct adj1 disorder\*).mp.  
aggression.sh.  
aggress\*.mp.  
(acting adj1 out).mp.  
(aggressive adj1 behavio?r).mp.  
(behavio?r\* adj1 problem\*).mp.  
(behavio?r\* adj1 disorder\*).mp.  
(conduct adj1 problem\*).mp.  
(conduct adj1 disorder\*).mp.  
(impulse adj1 control adj1 disorder\*).mp.  
(antisocial adj1 behavio?r\*).mp.  
(anti-social adj1 behavio?r\*).mp.  
(oppositional adj1 defiant adj1 disorder\*).af.  
(disruptive adj1 behavio?r adj1 disorder\*).af.  
violen\*.mp.  
(violent adj1 crime\*).mp.  
exp crime/  
crime.mp.  
crimes.mp.  
criminal\*.mp.  
(criminal behavio?r\*).mp.  
bully\*.mp  
bullying.sh.  
gang.mp.  
gangs.mp.  
homicid\*.mp.  
homicide.sh.  
(externalizing adj1 behavio?r adj1 problem\*).mp.  
externalizing.mp.  
externalising.mp.  
externalized.mp.  
externalised.mp.  
externaliz\*.mp.  
externalis\*.mp.  
(externalizing adj1 behavio?r).mp.  
or/14-

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11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25

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9 and 26

exp child/  
"Child Health Services".sh.  
"Child Welfare".sh.  
"Child Behavior".sh.  
"Child Care".sh.  
"Child Development".sh.  
Infant.sh.  
baby.ti,ab.  
babies.ti,ab.  
toddler.ti,ab.  
toddlers.ti,ab.  
adolescen\*.ti,ab.  
adolescent.ti,ab.  
adolescents.ti,ab.  
adolescence.ti,ab.  
child\*.ti,ab.  
child.ti,ab.  
children\*.ti,ab.  
childhood\*.ti,ab.  
childhood.ti,ab.  
youth\*.ti,ab.  
youth.ti,ab.  
youths.ti,ab.  
student\*.ti,ab.  
student.ti,ab.  
students.ti,ab.  
teen\*.ti,ab.  
teenager.ti,ab.  
teenagers.ti,ab.  
boy.ti,ab.  
boys.ti,ab.  
girl.ti,ab.  
girls.ti,ab.  
pupil.ti,ab.  
pupils.ti,ab.  
pupil\*.ti,ab.  
youngster\*.ti,ab.  
youngster.ti,ab.  
youngsters.ti,ab.  
juvenile\*.ti,ab.  
juvenile.ti,ab.  
juveniles.ti,ab.  
Infant\*.ti,ab.  
infant.ti,ab.  
infants.ti,ab.  
(young adj1 adult\*).ti,ab.

27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39

26 and 40

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<b>EMBASE (Ovid)</b> 1974 to 2013 Using EMTREE	Exp developing country/ (Developing adj1 Countr*).hw,ti,ab,cp. (Africa or Central Africa or Latin America or Caribbean or West Indies or Eastern Europe or Soviet or South America or Arab or Middle East or Latin America or Central America).hw,ti,ab,cp. (Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina
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Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadzhiestan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).hw,ti,ab,cp.  
((developing or less\* developed or under developed or underdeveloped or middle income or low\* income or underserved or under served or deprived or poor\* or foreign) adj1 (countr\* or nation? or population? or world or region)).ti,ab.  
((developing or less\* developed or under developed or underdeveloped or middle income or low\* income) adj1 (economy or economies)).ti,ab.  
(low adj3 middle adj1 countr\*).ti,ab.  
(lmic or lmic3 or third world or lami countr\*).ti,ab.  
(transitional countr\*).ti,ab.  
or/1-8

exp delinquency/  
(juvenile adj1 delinquen\*).mp.  
(school adj1 violence).mp.

or/

(conduct adj1 problem\*).mp.  
(conduct adj1 disorder\*).mp.  
(behavio?r\* adj1 problem\*).mp.  
(behavio?r adj1 disorder\*).mp.  
(oppositional adj1 defiant adj1 disorder\*).af.  
(disruptive adj1 behavio?r adj1 disorder\*).af.  
(impulse adj1 control adj1 disorder\*).mp.  
(criminal adj1 behavio?r\*).mp.  
(violent adj1 crime\*).mp.  
homicid\*.mp.  
homicide.mp.  
homicides.mp.  
conduct disorder/  
aggression.mp.  
aggressive.mp.  
aggress\*.mp.

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violen\*.mp.  
violent.mp.  
violence.mp.  
crime.mp.  
crimes.mp  
criminal\*.mp.  
gang.mp.  
gangs.mp.  
bully\*.mp.  
bully.mp.  
bullying.mp.  
(aggressive adj1 behavio?r).mp.  
(antisocial adj1 behavio?r).mp.  
(anti-social adj1 behavio?r\*).mp.  
exp aggression/  
homicide/  
gang/  
crime/  
criminal behavior/  
abnormal behavior/  
behavior disorder/  
disruptive behaviour/  
criminology/  
homicide/  
acting out/  
violence/  
workplace violence/  
**impulse control disorder/**

oppositional defiant disorder/  
conduct disorder/  
(externalizing adj1 behavio?r adj1 problem\*).mp.  
(externalizing adj1 behavio?r).mp.  
(externalising adj1 behavio?r).mp.  
externalizing.mp.  
externalising.mp.  
externalized.mp.  
externalised.mp.  
externaliz\*.mp.  
externalis\*.mp.

11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25

9 and 26

exp child/  
adolescent.sh.  
Infant.sh.  
baby.ti,ab.  
babies.ti,ab.  
toddler.ti,ab.  
toddlers.ti,ab.  
adolescen\*.ti,ab.  
adolescent.ti,ab.  
adolescents.ti,ab.  
adolescence.ti,ab.  
child\*.ti,ab.  
child.ti,ab.  
children\*.ti,ab.  
childhood\*.ti,ab.  
childhood.ti,ab.

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youth\*.ti,ab.  
youth.ti,ab.  
youths.ti,ab.  
student\*.ti,ab.  
students.ti,ab.  
student.ti,ab.  
teen\*.ti,ab.  
teenager.ti,ab.  
teenagers.ti,ab.  
boy.ti,ab.  
boys.ti,ab.  
girl.ti,ab.  
girls.ti,ab.  
pupil.ti,ab.  
pupils.ti,ab.  
pupil\*.ti,ab.  
youngster\*.ti,ab.  
youngster.ti,ab.  
youngsters.ti,ab.  
juvenile\*.ti,ab.  
juvenile.ti,ab.  
juveniles.ti,ab.  
Infant\*.ti,ab.  
infant.ti,ab.  
infants.ti,ab.  
(young adj1 adult\*).ti,ab.

57-

27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39

26 and 40

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**CINAHL  
(EBSCO)**

T1 ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or "under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

AB ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or "under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

MW (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

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TI (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

AB (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

MW (Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank" ) or TI ( Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank" Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

AB (Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

MW ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

TI ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or

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Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

AB ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

T1 (Africa or Asia or "South America" or "Latin America" or "Central America")

AB (Africa or Asia or "South America" or "Latin America" or "Central America")

(MH "Asia+")  
(MH "West Indies+")  
(MH "South America+")  
(MH "Latin America")  
(MH "Central America+")  
(MH "Africa+")  
(MH "Developing Countries")

or/

(MH "Juvenile Delinquency")  
AB (juvenile N1 delinquen\*)  
AB (school N1 violence)  
(MH "Juvenile Offenders+")  
(MH "[Child Behavior Disorders](#)")

or/

(MH "Aggression")  
(MH "Social Behavior Disorders")  
(MH "Crime")  
(MH "Violence")  
(MH "Homicide")  
(MH "Assault and Battery")  
(MH "Aggression+")  
AB (conduct N1 problem\*)  
AB (behavio#r N1 problem\*)  
AB (antisocial N1 behavio#r)  
AB (disruptive N1 behavio#r)  
AB (conduct N1 disorder\*)  
AB (behavio#r N1 disorder\*)  
AB (aggressive N1 behavio#r)  
AB (aggression)  
AB (aggressive)  
AB (antisocial N1 behavio#r)  
AB (anti-social N1 behavio#r)  
AB (gang)  
AB (gangs)  
AB (criminal N1 behavio#r)  
AB (violent N1 crime)  
AB (homicid\*)  
AB (violence)  
AB (violent)  
AB (crime)

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AB (crimes)  
AB (criminal\*)  
AB (bully)  
AB (bullying)  
**AB (delinquent\*)**

AB (delinquenc\*)  
TX (oppositional N1 defiant N1 disorder\*)  
TX (disruptive N1 behavio#r N1 disorder\*)  
AB (externalizing N1 behavio#r N1 problem\*)  
AB (externalizing)  
AB (externalising)  
AB (externalized)  
AB (externalised)  
AB (externaliz\*)  
AB (externalis\*)  
AB (externalizing N1 behavio#r)  
AB (externalising N1 behavio#r)  
or /...

S21 AND S68

(MH " Child+")  
(MH "Adolescence")  
AB (Adolescen\*)  
AB (Adolescence)  
AB (Adolescent)  
AB (adolescents)  
AB (Child\*)  
AB (child)  
AB (children)  
AB (childhood)  
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AB (student\*)  
AB (Students)  
AB (Student)  
AB (teen\*)  
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AB (teenagers)  
AB (boy\*)  
AB (boy)  
AB (boys)  
AB (girl\*)  
AB (girl)  
AB (girls)  
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AB (pupils)  
AB (pupil\*)  
AB (youngster\*)  
AB (youngster)  
AB (youngsters)  
AB (juvenile\*)  
AB (juvenile)  
AB (juveniles)  
AB (young N1 adult\*)  
AB (infant\*)  
AB (infants)  
AB (infant)  
AB (baby\*)

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AB (baby)  
AB (babies)  
AB (toddler)  
AB (toddler\*)  
AB (toddlers)

or/

22 and 38

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**Criminal Justice  
Abstracts  
(EBSCOHost)**

TI ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or "under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

AB ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or "under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

MW (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

TI (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

AB (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

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or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank" Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

AB (Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

MW ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

TI ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

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TI (Africa or Asia or "South America" or "Latin America" or "Central America")

AB (Africa or Asia or "South America" or "Latin America" or "Central America")

(MH "Asia+")

(MH "West Indies+")

(MH "South America+")

(MH "Latin America")

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(MH "Central America+")

(MH "Africa+")

(MH "Developing Countries")

or/

(MH "Juvenile Delinquency")  
AB (juvenile N1 delinquen\*)  
AB (school N1 violence)  
(MH "Juvenile Offenders+")  
(MH "[Child Behavior Disorders](#)")

or/

(MH "Aggression")  
(MH "Social Behavior Disorders")  
(MH "Crime")  
(MH "Violence")  
(MH "Homicide")  
(MH "Assault and Battery")  
(MH "Aggression+")  
AB (conduct N1 problem\*)  
AB (behavio#r N1 problem\*)  
AB (disruptive N1 behavio#r)  
AB (conduct N1 disorder\*)  
AB (behavio#r N1 disorder\*)  
AB (aggressive N1 behavio#r)  
AB (aggression)  
AB (aggressive)  
AB (antisocial N1 behavio#r)  
AB (anti-social N1 behavio#r)  
AB (gang)  
AB (gangs)  
AB (criminal N1 behavio#r)  
AB (violent N1 crime)  
AB (homicid\*)  
AB (violence)  
AB (violent)  
AB (crime)  
AB (crimes)  
AB (criminal\*)  
AB (bully)  
AB (bullying)  
AB (delinquent\*)  
AB (delinquenc\*)  
TX (oppositional N1 defiant N1 disorder\*)  
TX (disruptive N1 behavio#r N1 disorder\*)  
AB (externalizing N1 behavio#r N1 problem\*)  
AB (externalizing)  
AB (externalising)  
AB (externalized)  
AB (externalised)  
AB (externaliz\*)  
AB (externalis\*)  
AB (externalizing N1 behavio#r)  
AB (externalising N1 behavio#r)  
or /...

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S21 AND S68

(MH " Child+")  
(MH "Adolescence")  
AB (Adolescen\*)  
AB (Adolescence)  
AB (Adolescent)  
AB (adolescents)  
AB (Child\*)  
AB (child)  
AB (children)  
AB (childhood)  
AB (youth\*)  
AB (youth)  
AB (youths)  
AB (student\*)  
AB (Students)  
AB (Student)  
AB (teen\*)  
AB (teenager)  
AB (teenagers)  
AB (boy\*)  
AB (boy)  
AB (boys)  
AB (girl\*)  
AB (girl)  
AB (girls)  
AB (pupil)  
AB (pupils)  
AB (pupil\*)  
AB (youngster\*)  
AB (youngster)  
AB (youngsters)  
AB (juvenile\*)  
AB (juvenile)  
AB (juveniles)  
AB (young N1 adult\*)  
AB (infant\*)  
AB (infants)  
AB (infant)  
AB (baby\*)  
AB (baby)  
AB (babies)  
AB (toddler)  
AB (toddler\*)  
AB (toddlers)

or/

22 and 38

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[Russian Academy of Sciences Bibliographies](#)  
(EBSCOHost)

Same as EconLit

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**EconLit**  
(EBSCOHost)

T1 ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or

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"under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

AB ("developing country" or "developing countries" or "developing nation" or "developing nations" or less\* W1 "developed country" or less\* W1 "developed countries" or less\* W1 "developed nation" or less\* W1 "developed nations" or "third world" or "under developed" or "middle income" or "low income" or "underserved country" or "underserved countries" or "underserved nation" or "underserved nations" or "under served country" or "under served countries" or "under served nation" or "under served nations" or "underserved population" or "underserved populations" or "under served population" or "under served populations" or "deprived country" or "deprived countries" or "deprived nation" or "deprived nations" or poor\* W1 country or poor\* W1 countries or poor\* W1 nation\* or poor\* W1 population\* or Imic or Imics)

MW (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

TI (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

AB (Afghanistan or Bangladesh or Benin or "Burkina Faso" or Burundi or Cambodia or "Central African Republic" or Chad or Comoros or Congo or "Cote d'Ivoire" or Eritrea or Ethiopia or Gambia or Ghana or Guinea or Haiti or India or Kenya or Korea or Kyrgyz or Kyrgyzstan or Lao or Laos or Liberia or Madagascar or Malawi or Mali or Mauritania or Melanesia or Mongolia or Mozambique or Burma or Myanmar or Nepal or Niger or Nigeria or Pakistan or Rwanda or "Salomon Islands" or "Sao Tome" or Senegal or "Sierra Leone" or Somalia or Sudan or Tajikistan or Tanzania or Timor or Togo or Uganda or Uzbekistan or Vietnam or "Viet Nam" or Yemen or Zambia or Zimbabwe)

MW (Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank" ) or TI ( Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or

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Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

AB (Albania or Algeria or Angola or Armenia or Azerbaijan or Belarus or Bhutan or Bolivia or Bosnia or Herzegovina or "Cape Verde" or Cameroon or China or Colombia or Congo or Cuba or Djibouti or "Dominican Republic" or Ecuador or Egypt or "El Salvador" or Fiji or Gaza or Georgia or Guam or Guatemala or Guyana or Honduras or "Indian Ocean Islands" or Indonesia or Iran or Iraq or Jamaica or Jordan or Kiribati or Lesotho or Macedonia or Maldives or "Marshall Islands" or Micronesia or "Middle East" or Moldova or Morocco or Namibia or Nicaragua or Palestin\* or Paraguay or Peru or Philippines or Samoa or "Sri Lanka" or Suriname or Swaziland or Syria or "Syrian Arab Republic" or Thailand or Tonga or Tunisia or Turkmenistan or Ukraine or Vanuatu or "West Bank")

MW ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

TI ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

AB ("American Samoa" or Argentina or Belize or Botswana or Brazil or Bulgaria or Chile or Comoros or "Costa Rica" or Croatia or Dominica or Guinea or Gabon or Grenada or Grenadines or Hungary or Kazakhstan or Latvia or Lebanon or Libia or libyan or Libya or Lithuania or Malaysia or Mauritius or Mayotte or Mexico or Micronesia or Montenegro or Nevis or "Northern Mariana Islands" or Oman or Palau or Panama or Poland or Romania or Russia or "Russian Federation" or Samoa or "Saint Lucia" or "St Lucia" or "Saint Kitts" or "St Kitts" or "Saint Vincent" or "St Vincent" or Serbia or Seychelles or Slovakia or "Slovak Republic" or "South Africa" or Turkey or Uruguay or Venezuela or Yugoslavia)

TI (Africa or Asia or "South America" or "Latin America" or "Central America")

AB (Africa or Asia or "South America" or "Latin America" or "Central America")

(SU "Asia+")

(SU "West Indies+")

(SU "South America+")

(SU "Latin America")

(SU "Central America+")

(SU "Africa+")

(SU "Developing Countries")

or/

(SU "Juvenile Delinquency")

AB (juvenile N1 delinquen\*)

AB (school N1 violence)

(SU "Juvenile Offenders+")

(SU "[Child Behavior Disorders](#)")

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or/

SU ("Crime")  
SU ("Aggression")  
SU ("Bullying")  
SU ("Violence")  
(SU "Violence")  
(SU "Homicide")  
AB (conduct N1 problem\*)  
AB (behavio#r N1 problem\*)  
AB (disruptive N1 behavio#r)  
AB (conduct N1 disorder\*)  
AB (behavio#r N1 disorder\*)  
AB (aggressive N1 behavio#r)  
AB (aggression)  
AB (aggressive)  
AB (antisocial N1 behavio#r)  
AB (anti-social N1 behavio#r)  
AB (gang)  
AB (gangs)  
AB (criminal N1 behavio#r)  
AB (violent N1 crime)  
AB (homicid\*)  
AB (violence)  
AB (violent)  
AB (crime)  
AB (crimes)  
AB (criminal\*)  
AB (bully)  
AB (bullying)  
AB (delinquent\*)  
AB (delinquenc\*)  
TX (oppositional N1 defiant N1 disorder\*)  
TX (disruptive N1 behavio#r N1 disorder\*)  
AB (externalizing N1 behavio#r N1 problem\*)  
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AB (externalising N1 behavio#r)  
or /...

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(SU " Child+")  
(SU "Adolescence")  
AB (Adolescen\*)  
AB (Adolescence)  
AB (Adolescent)  
AB (adolescents)  
AB (Child\*)  
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AB (children)  
AB (childhood)  
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AB (youth)  
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AB (student\*)  
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 AB (babies)  
 AB (toddler)  
 AB (toddler\*)  
 AB (toddlers)

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22 and 38

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<b>Sociological Abstracts</b> + <b>Social Services Abstracts (ProQuest)</b>	ab(Africa or Asia or "Latin America" or "South America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or Arab or "Middle East" or "Latin America" or "Central America") OR (ab(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldovia or Moldovian or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or
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Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjikistan or Tadjikistan or Tadjik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia)) OR (AB "Developing Countries") OR (ab(developing NEAR/1 world)) OR (ab(poor\* NEAR/1 nation\*)) OR (ab(developing NEAR/1 countr\*)) OR (ab(developing NEAR/1 region\*)) OR (ab(third NEAR/1 world)) OR SU.EXACT.EXPLODE("Developing Countries")

(SU.EXACT.EXPLODE("Crime")) OR (SU.EXACT.EXPLODE("Aggression")) OR (SU.EXACT.EXPLODE("Behavior Problems")) OR (SU.EXACT.EXPLODE("Violence")) OR (SU.EXACT.EXPLODE("Gangs")) OR (ab(gang\*)) OR (ab(conduct NEAR/1 problem\*)) OR (ab(behavio\*r NEAR/1 problem\*)) OR (ab(conduct NEAR/1 disorder\*)) OR (ab(antisocial NEAR/1 behavio\*r\*)) OR (ab(oppositional NEAR/1 defiant NEAR/1 disorder\*)) OR (AB "Aggression") OR (AB "Social Behavior Disorders") OR (AB "Crime") OR (AB "Violence") OR (AB "Homicide") OR (AB "Assault and Battery") OR (AB "Aggression") OR (AB(conduct NEAR/1 problem\*)) OR (AB(behavio#r NEAR/1 problem\*)) OR (AB(disruptive NEAR/1 behavio#r)) OR (AB(conduct NEAR/1 disorder\*)) OR (AB(behavio#r NEAR/1 disorder\*)) OR (AB(aggressive NEAR/1 behavio#r)) OR (AB(aggression) OR AB(aggressive)) OR (AB(antisocial NEAR/1 behavio#r)) OR (AB(anti-social NEAR/1 behavio#r)) OR (AB(gang)) OR (AB(gangs)) OR (AB(criminal N1 behavio#r)) OR (AB(violent NEAR/1 crime)) OR (AB(homicid\*)) OR (AB(violence)) OR (AB(violent)) OR (AB(crime)) OR (AB(crimes)) OR (AB(criminal\*)) OR (AB(bully)) OR (AB(bullying)) OR TX (oppositional N1 defiant N1 disorder\*) OR TX (disruptive N1 behavio#r N1 disorder\*)

AB(delinquent\*) OR AB(delinquenc\*) OR AB(school NEAR/1 violence) OR AB(juvenile NEAR/1 delinquency) OR AB(juvenile NEAR/1 delinquent) OR AB(juvenile NEAR/1 delinquents) OR SU.exact("JUVENILE DELINQUENCY") OR SU.exact("DELINQUENCY") OR SU.exact("JUVENILE OFFENDERS")

(SU.EXACT.EXPLODE("Adolescents")) OR (SU.EXACT.EXPLODE("Infants")) OR (SU.EXACT.EXPLODE("Children")) OR (AB "Adolescence") OR AB(Adolescen\*) OR AB(Adolescence) OR AB(Adolescent) OR AB(adolescents) OR AB(Child\*) OR AB(child) OR AB(children) OR AB(childhood) OR AB(youth\*) OR AB(youth) OR AB(youths) OR AB(student\*) OR AB(Students) OR AB(Student) OR AB(teen\*) OR AB(teenager) OR AB(teenagers) OR AB(boy\*) OR AB(boy) OR AB(boys) OR AB(girl\*) OR AB(girl) OR AB(girls) OR AB(pupil) OR AB(pupils) OR AB(pupil\*) OR AB(youngster\*) OR AB(youngster) OR AB(youngsters) OR AB(juvenile\*) OR AB(juvenile) OR AB(juveniles) OR AB(young NEAR/1 adult\*) OR AB(infant\*) OR AB(infants) OR AB(infant) OR AB(baby\*) OR AB(baby) OR AB(babies) OR AB(toddler) OR AB(toddler\*) OR AB(toddlers)

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**Applied Social Sciences Index and Abstracts (ProQuest)**

(ab(Africa or Asia or "Latin America" or "South America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or Arab or "Middle East" or "Latin America" or "Central America")) OR (ab(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Camerouns or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or

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Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadhikistan or Tadjikistan or Tadhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia)) OR (AB "Developing Countries") OR (ab(developing NEAR/1 world)) OR (ab(poor\* NEAR/1 nation\*)) OR (ab(developing NEAR/1 countr\*)) OR (ab(developing NEAR/1 region\*)) OR (ab(third NEAR/1 world)) OR (SU.EXACT.EXPLODE"[Developing Countries](#)")

(SU.EXACT.EXPLODE("Crime")) OR (SU.EXACT.EXPLODE("Aggression")) OR (SU.EXACT("Bullying")) OR (SU.EXACT.EXPLODE("Violence")) OR (SU.EXACT ("Criminal behaviour")) OR (SU.EXACT ("Oppositional defiant disorder")) OR SU.exact("CONDUCT DISORDERS") OR (ab(gang\*)) OR (ab(conduct NEAR/1 problem\*)) OR (ab(behavio\*r NEAR/1 problem\*)) OR (ab(conduct NEAR/1 disorder\*)) OR (ab(antisocial NEAR/1 behavio\*r\*)) OR (ab(oppositional NEAR/1 defiant NEAR/1 disorder\*)) OR (AB "Aggression") OR (AB "Social Behavior Disorders") OR (AB "Crime") OR (AB "Violence") OR (AB "Homicide") OR (AB "Assault and Battery") OR (AB "Aggression") OR (AB(conduct NEAR/1 problem\*)) OR (AB(behavio#r NEAR/1 problem\*)) OR (AB(disruptive NEAR/1 behavio#r)) OR (AB(conduct NEAR/1 disorder\*)) OR (AB(behavio#r NEAR/1 disorder\*)) OR (AB(aggressive NEAR/1 behavio#r)) OR (AB(aggression) OR AB(aggressive)) OR (AB(antisocial NEAR/1 behavio#r)) OR (AB(anti-social NEAR/1 behavio#r)) OR (AB(gang)) OR (AB(gangs)) OR (AB(criminal N1 behavio#r)) OR (AB(violent NEAR/1 crime)) OR (AB(homicid\*)) OR (AB(violence)) OR (AB(violent)) OR (AB(crime)) OR (AB(crimes)) OR (AB(criminal\*)) OR (AB(bully)) OR (AB(bullying)) OR TX (oppositional N1 defiant N1 disorder\*) OR TX (disruptive N1 behavio#r N1 disorder\*)

AB(delinquent\*) OR AB(delinquenc\*) OR AB(school NEAR/1 violence) OR AB(juvenile NEAR/1 delinquency) OR AB(juvenile NEAR/1 delinquent) OR AB(juvenile NEAR/1 delinquents) OR SU.exact("JUVENILE DELINQUENCY") OR SU.exact("DELINQUENCY") OR SU.exact("JUVENILE OFFENDERS")

(SU.EXACT.EXPLODE"Children") OR (SU.EXACT.EXPLODE("Adolescence")) OR (SU.EXACT.EXPLODE("Youth")) OR (AB "Adolescence") OR AB(Adolescen\*) OR AB(Adolescence) OR AB(Adolescent) OR AB(adolescents) OR AB(Child\*) OR AB(child) OR AB(children) OR AB(childhood) OR AB(youth\*) OR AB(youth) OR AB(youths) OR AB(student\*) OR AB(Students) OR AB(Student) OR AB(teen\*) OR AB(teenager) OR AB(teenagers) OR AB(boy\*) OR AB(boy) OR AB(boys) OR AB(girl\*) OR AB(girl) OR AB(girls) OR AB(pupil) OR AB(pupils) OR AB(pupil\*) OR AB(youngster\*) OR AB(youngster) OR AB(youngsters) OR AB(juvenile\*) OR AB(juvenile) OR AB(juveniles) OR AB(young NEAR/1 adult\*) OR AB(infant\*) OR AB(infants) OR AB(infant) OR AB(baby\*) OR AB(baby) OR AB(babies) OR AB(toddler) OR AB(toddler\*) OR AB(toddlers)

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**International  
Bibliography of  
the Social  
Sciences  
(IBSS)  
(ProQuest)**

(ab(Africa or Asia or "Latin America" or "South America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or Arab or "Middle East" or "Latin America" or "Central America")) OR (ab(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or

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Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timor or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia)) OR (AB "Developing Countries") OR (ab(developing NEAR/1 world)) OR (ab(poor\* NEAR/1 nation\*)) OR (ab(developing NEAR/1 countr\*)) OR (ab(developing NEAR/1 region\*)) OR (ab(third NEAR/1 world)) OR (SU.EXACT.EXPLODE("Developing Countries"))

(SU.EXACT.EXPLODE("Crime")) OR (SU.EXACT.EXPLODE("Aggression")) OR (SU.EXACT.EXPLODE("Bullying")) OR (SU.EXACT ("Violence")) OR (SU.EXACT.EXPLODE("Gang")) OR (SU.EXACT.EXPLODE("Crime")) OR (SU.EXACT.EXPLODE("Aggression")) OR (SU.EXACT.EXPLODE("Bullying")) OR (SU.EXACT.EXPLODE("Violence")) OR (ab(gang\*)) OR (ab(conduct NEAR/1 problem\*)) OR (ab(behavio\*r NEAR/1 problem\*)) OR (ab(conduct NEAR/1 disorder\*)) OR (ab(antisocial NEAR/1 behavio\*r\*)) OR (ab(oppositional NEAR/1 defiant NEAR/1 disorder\*)) OR (AB "Aggression") OR (AB "Social Behavior Disorders") OR (AB "Crime") OR (AB "Violence") OR (AB "Homicide") OR (AB "Assault and Battery") OR (AB "Aggression") OR (AB(conduct NEAR/1 problem\*)) OR (AB(behavio#r NEAR/1 problem\*)) OR (AB(disruptive NEAR/1 behavio#r)) OR (AB(conduct NEAR/1 disorder\*)) OR (AB(behavio#r NEAR/1 disorder\*)) OR (AB(aggressive NEAR/1 behavio#r)) OR (AB(aggression) OR AB(aggressive)) OR (AB(antisocial NEAR/1 behavio#r)) OR (AB(anti-social NEAR/1 behavio#r)) OR (AB(gang)) OR (AB(gangs)) OR (AB(criminal N1 behavio#r)) OR (AB(violent NEAR/1 crime)) OR (AB(homicid\*)) OR (AB(violence)) OR (AB(violent)) OR (AB(crime)) OR (AB(crimes)) OR (AB(criminal\*)) OR (AB(bully)) OR (AB(bullying))

AB(delinquent\*) OR AB(delinquenc\*) OR TX (oppositional N1 defiant N1 disorder\*) OR TX (disruptive N1 behavio#r N1 disorder\*) OR AB(school NEAR/1 violence) OR AB(juvenile NEAR/1 delinquency) OR AB(juvenile NEAR/1 delinquent) OR AB(juvenile NEAR/1 delinquents)

(SU.EXACT.EXPLODE("Children")) OR (SU.EXACT.EXPLODE("Adolescence")) OR (SU.EXACT.EXPLODE("Youth")) OR (AB "Adolescence") OR AB(Adolescen\*) OR AB(Adolescence) OR AB(Adolescent) OR AB(adolescents) OR AB(Child\*) OR AB(child) OR AB(children) OR AB(childhood) OR AB(youth\*) OR AB(youth) OR AB(youths) OR AB(student\*) OR AB(Students) OR AB(Student) OR AB(teen\*) OR AB(teenager) OR AB(teenagers) OR AB(boy\*) OR AB(boy) OR AB(boys) OR AB(girl\*) OR AB(girl) OR AB(girls) OR AB(pupil) OR AB(pupils) OR AB(pupil\*) OR AB(youngster\*) OR AB(youngster) OR AB(youngsters) OR AB(juvenile\*) OR AB(juvenile) OR AB(juveniles) OR AB(young NEAR/1 adult\*) OR AB(infant\*) OR AB(infants) OR AB(infant) OR AB(baby\*) OR AB(baby) OR AB(babies) OR AB(toddler) OR AB(toddler\*) OR AB(toddlers)

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**ERIC (ProQuest)** (ab(Africa or Asia or "Latin America" or "South America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or Arab or "Middle East" or "Latin America" or "Central America")) OR (ab(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or

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Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillipines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia)) OR (AB "Developing Countries") OR (SU.EXACT.EXPLODE("Developing Countries")) OR (ab(developing NEAR/1 world)) OR (ab(poor\* NEAR/1 nation\*)) OR (ab(developing NEAR/1 countr\*)) OR (ab(developing NEAR/1 region\*)) OR (ab(third NEAR/1 world)) OR (SU.EXACT.EXPLODE("Foreign Countries")) OR (SU.EXACT.EXPLODE("Developing Nations"))

(SU.EXACT.EXPLODE("Crime")) OR (SU.EXACT.EXPLODE("Aggression")) OR (SU.EXACT.EXPLODE("Bullying")) OR (SU.EXACT.EXPLODE("Violence")) OR (ab(gang\*)) OR (ab(conduct NEAR/1 problem\*)) OR (ab(behavio\*r NEAR/1 problem\*)) OR (ab(conduct NEAR/1 disorder\*)) OR (ab(antisocial NEAR/1 behavio\*r\*)) OR (ab(oppositional NEAR/1 defiant NEAR/1 disorder\*)) OR (AB "Aggression") OR (AB "Social Behavior Disorders") OR (AB "Crime") OR (AB "Violence") OR (AB "Homicide") OR (AB "Assault and Battery") OR (AB "Aggression") OR (AB(conduct NEAR/1 problem\*)) OR (AB(behavio#r NEAR/1 problem\*)) OR (AB(disruptive NEAR/1 behavio#r)) OR (AB(conduct NEAR/1 disorder\*)) OR (AB(behavio#r NEAR/1 disorder\*)) OR (AB(antisocial NEAR/1 behavio#r)) OR (AB(anti-social NEAR/1 behavio#r)) OR (AB(gang)) OR (AB(gangs)) OR (AB(criminal N1 behavio#r)) OR (AB(violent NEAR/1 crime)) OR (AB(homicid\*)) OR (AB(violence)) OR (AB(violent)) OR (AB(crime)) OR (AB(crimes)) OR (AB(criminal\*)) OR (AB(bully)) OR (AB(bullying))

AB(delinquent\*) OR AB(delinquenc\*) OR TX (oppositional N1 defiant N1 disorder\*) OR TX (disruptive N1 behavio#r N1 disorder\*) OR AB(school NEAR/1 violence) OR AB(juvenile NEAR/1 delinquency) OR AB(juvenile NEAR/1 delinquent) OR AB(juvenile NEAR/1 delinquents)

(SU.EXACT.EXPLODE("Adolescents")) OR (SU.EXACT.EXPLODE("Early Adolescents")) OR (SU.EXACT.EXPLODE("Children")) OR (SU.EXACT.EXPLODE("Youth")) OR (SU.EXACT.EXPLODE("Late Adolescents")) OR (AB "Adolescence") OR AB(Adolescen\*) OR AB(Adolescence) OR AB(Adolescent) OR AB(adolescents) OR AB(Child\*) OR AB(child) OR AB(children) OR AB(childhood) OR AB(youth\*) OR AB(youth) OR AB(youths) OR AB(student\*) OR AB(Students) OR AB(Student) OR AB(teen\*) OR AB(teenager) OR AB(teenagers) OR AB(boy\*) OR AB(boy) OR AB(boys) OR AB(girl\*) OR AB(girl) OR AB(girls) OR AB(pupil) OR AB(pupils) OR

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AB(pupil\*) OR AB(youngster\*) OR AB(youngster) OR AB(youngsters) OR AB(juvenile\*) OR AB(juvenile) OR AB(juveniles) OR AB(young NEAR/1 adult\*) OR AB(infant\*) OR AB(infants) OR AB(infant) OR AB(baby\*) OR AB(baby) OR AB(babies) OR AB(toddler) OR AB(toddler\*) OR AB(toddlers)

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[National  
Criminal  
Justice  
Reference  
Service  
Abstracts  
Database](#)

"Developing Countries"

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Web of Science

- Topic=(infants)
- Topic=(infant)
- Topic=(Infant\*)
- Topic=(juveniles)
- Topic=(juvenile)
- Topic=(juvenile\*)
- Topic=(youngsters)
- Topic=(youngster)
- Topic=(youngster\*)
- Topic=(pupil\*)
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- Topic=(girls)
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- Topic=(teen\*)
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- Topic=(youths)
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- Topic=(childhood\*)
- Topic=(children\*)
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- Topic=(child\*)
- Topic=(adolescence)
- Topic=(adolescents)
- Topic=(adolescent)
- Topic=(adolescen\*)
- Topic=(toddlers)
- Topic=(toddler)
- Topic=(babies)
- Topic=(baby)
- Topic=(young NEAR/1 adult\*)
  
- Topic=(externalis\*)
- Topic=(externaliz\*)
- Topic=(externalised)
- Topic=(externalized)
- Topic=(externalising)
- Topic=(externalizing)
- Topic=(bully)
- Topic=(bullying)
- Topic=(bully\*)
- Topic=(criminal NEAR/1 behavio\$r\*)

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Topic=(criminal\*)  
Topic=(crimes)  
Topic=(crime)  
Topic=(violent NEAR/1 crime\*)  
Topic=(aggressive NEAR/1 behavior\*)  
Topic=(anti-social)  
Topic=(antisocial)  
Topic=(aggressive)  
Topic=(aggress\*)  
Topic=(aggression)  
Topic=(antisocial NEAR/1 behavior\*)  
Topic=(disruptive NEAR/1 behavior NEAR/1 disorder\*)  
Topic=(oppositional NEAR/1 defiant NEAR/1 disorder\*)  
Topic=(behavior NEAR/1 disorder\*)  
Topic=(behavior NEAR/1 problem\*)  
Topic=(conduct NEAR/1 disorder\*)  
Topic=(conduct NEAR/1 problem\*)  
Topic=(gangs)  
Topic=(gang)  
Topic=(homicide\*)  
Topic=(violence\*)  
Topic=(violence)  
Topic=(violent)

Topic=(school NEAR/1 violence)  
Topic=(juvenile NEAR/1 delinquent)  
Topic=(juvenile NEAR/1 delinquency)

Topic=(deprived NEAR/1 (country\* OR nation\*))  
Topic=((("less developed") NEAR/1 (country\* OR nation\*))  
Topic=((("under developed") NEAR/1 (country\* OR nation\*))  
Topic=((("low income") NEAR/1 (economy or economies))  
Topic=((("under developed") NEAR/1 (economy or economies))  
Topic=((("middle income") NEAR/1 (economy or economies))  
Topic=((("under developed") NEAR/1 (economy or economies))  
Topic=(("less developed" NEAR/1 (economy or economies))  
Topic=((("under developed") NEAR/1 (economy or economies))  
Topic=(underdeveloped NEAR/1 (economy or economies))  
Topic=((poor) NEAR/1 (country\* OR nation\*))  
Topic=((developing NEAR/1 nation\*))  
Topic=((developing NEAR/1 region\*))  
Topic=((developing NEAR/1 country\*))  
Topic=((developing NEAR/1 world))  
Topic=((developing) NEAR/1 (economy or economies))  
Topic=(third NEAR/1 world)

Topic=(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Belarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or Burkina Faso or Burkina Fasso or Upper Volta or Burundi or Urundi or Cambodia or Khmer Republic or Kampuchea or Cameroon or Camerons or Cameron or Camerons or Cape Verde or Central African Republic or Chad or Chile or China or Colombia or Comoros or Comoro Islands or Comores or Mayotte or Congo or Zaire or Costa Rica or Cote d'Ivoire or Ivory Coast or Croatia or Cuba or Cyprus or Czechoslovakia or Czech Republic or Slovakia or Slovak Republic or Djibouti or French Somaliland or Dominica or Dominican Republic or East Timor or East Timur or Timor Leste or Ecuador or Egypt or United Arab Republic or El Salvador or Eritrea or Estonia or Ethiopia or Fiji or Gabon or Gabonese Republic or Gambia or Gaza or Georgia Republic or Georgian Republic or Ghana or Gold Coast or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or Isle of Man or Jamaica or Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or Kyrgyz Republic or Kirghiz or Kirgizstan or Lao PDR or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or

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Libya or Lithuania or Macedonia or Madagascar or Malagasy Republic or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or Marshall Islands or Mauritania or Mauritius or Agalega Islands or Mexico or Micronesia or Middle East or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or Netherlands Antilles or New Caledonia or Nicaragua or Niger or Nigeria or Northern Mariana Islands or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or Puerto Rico or Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or Saint Kitts or St Kitts or Nevis or Saint Lucia or St Lucia or Saint Vincent or St Vincent or Grenadines or Samoa or Samoan Islands or Navigator Island or Navigator Islands or Sao Tome or Saudi Arabia or Senegal or Serbia or Montenegro or Seychelles or Sierra Leone or Slovenia or Sri Lanka or Ceylon or Solomon Islands or Somalia or South Africa or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjikistan or Tadjikistan or Tadjik or Tanzania or Thailand or Togo or Togolese Republic or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or Soviet Union or Union of Soviet Socialist Republics or Uzbekistan or Uzbek or Vanuatu or New Hebrides or Venezuela or Vietnam or Viet Nam or West Bank or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia)  
 Topic=(Africa or "Latin America" or "South America" or Caribbean or "West Indies" or "Eastern Europe" or Soviet or Arab or "Middle East" or "Latin America" or "Central America")

JOLIS (IMF, World Bank and International Finance Corporation)

<http://external.worldbankimflib.org/uhtbin/cgisirsi/?ps=Uvm3MkrFSe/JL/0/49>

(aggression OR violence OR homicide OR gang OR bully OR crime OR "juvenile delinquency" OR "conduct problem" OR "conduct disorder" OR "behavior problem" OR "behavior disorder")

AND

(adolescent OR child OR youth OR student OR teen OR boy OR girl OR pupil OR youngster OR juvenile OR infant)

World Bank

<https://openknowledge.worldbank.org/discover?scope=%2F&query=%28aggression+OR+violence+OR+homicide+OR+gang+OR+bully+OR+crime+OR+%E2%80%9Cjuvenile+delinquency%E2%80%9D+OR+%E2%80%9Cconduct+problem%E2%80%9D+OR+%E2%80%9Cconduct+disorder%E2%80%9D+OR+%E2%80%9Cbehavior+problem%E2%80%9D+OR+%E2%80%9Cbehavior+disorder%E2%80%9D%29+AND+%28adolescent+OR+child+OR+youth+OR+student+OR+teen+OR+boy+OR+girl+OR+pupil+OR+youngster+OR+juvenile+OR+infant%29&submit=Go>  
 (aggression OR violence OR homicide OR gang OR bully OR crime OR "juvenile delinquency" OR "conduct problem" OR "conduct disorder" OR "behavior problem" OR "behavior disorder") AND  
 (adolescent OR child OR youth OR student OR teen OR boy OR girl OR pupil OR youngster OR juvenile OR infant)

LILACS

RUN 1

child OR niño OR criança OR infant OR lactante OR lactente OR Adolescent OR Adolescente OR "Child Psychiatry" OR "Psiquiatria Infantil" OR "Psiquiatria Infantil" OR "Child Behavior" OR "Conducta Infantil" OR "Comportamento Infantil" OR "Adolescent Behavior" OR "Conducta del Adolescente" OR "Comportamento do Adolescente" OR Adolescent Development" OR "Desarrollo del Adolescente" OR "Desenvolvimento do Adolescente" OR "Adolescent Behavior" OR "Conducta del Adolescente" OR "Comportamento do Adolescente"

[Subject descriptor]

AND

gang OR gangs OR pandilla OR quadrilha OR crimes OR criminal OR Crimen OR Crime OR (antisocial AND behavior) OR antisocial OR anti-social OR "antisocial behavior" OR "anti-social behavior" OR "comportamento anti-social" OR "conducta anti-social" OR violen\$ OR Violencia OR Violência OR violence OR violent OR violen\$ OR bully\$ OR "Acoso Escolar" OR Bullying OR aggress\$ OR aggression OR Agresión OR Agressão OR Homicidio OR Homicídio OR Acoso Escolar OR bullying OR domestic violence OR Violencia Doméstica OR Violência Doméstica OR conducta antisocial

[Words]

RUN 2

child OR children OR adolescent OR Adolescente OR child\$ OR adolescen\$ OR youth\$ OR student\$ OR teen\$ OR boy\$ OR girl\$ OR pupil\$ OR youngster\$ OR juvenile\$ OR infant\$ OR infan\$ OR baby OR babies OR preschool OR preschool\$ OR criança OR infant OR infants OR lactante OR lactente OR neonat\$ OR baby OR babies OR kid OR kids OR toddler\$ OR jóvenes OR niña OR niño OR

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criança OR newborn  
[Words]

**AND**

"Domestic Violence" OR "Violencia Doméstica" OR "Violência Doméstica" OR "Social Behavior Disorders" OR "Trastorno de la Conducta Social" OR "Transtornos do Comportamento Social" OR aggression OR Agresión OR Agressão OR Homicide OR Homicidio OR Homicídio OR bully OR "Acoso Escolar" OR Bullying OR "oppositional defiant disorder" OR "trastorno desafiante por oposición" OR "transtorno desafiador de oposição" OR "conduct disorder" OR "Trastorno del Comportamiento" OR "Transtorno da Conduta" OR "transtorno desafiador-opositivo" OR "conducta antisocial" or "transtorno da conduta" OR "transtorno da personalidade anti-social" OR "Transtornos do

Comportamento"  
[Subject descriptor]

**RUN 3**

child OR niño OR criança OR infant OR lactante OR lactente OR Adolescent OR Adolescente OR "Child Psychiatry" OR "Psiquiatria Infantil" OR "Psiquiatria Infantil" OR "Child Behavior" OR "Conducta Infantil" OR "Comportamento Infantil" OR "Adolescent Behavior" OR "Conducta del Adolescente" OR "Comportamento do Adolescente" OR Adolescent Development" OR "Desarrollo del Adolescente" OR "Desenvolvimento do Adolescente" OR "Adolescent Behavior" OR "Conducta del Adolescente" OR "Comportamento do Adolescente" OR "Adolescent Psychiatry" OR "Psiquiatria del Adolescente" OR "Psiquiatria do Adolescente"

[Subject descriptor]

**AND**

"Domestic Violence" OR "Violencia Doméstica" OR "Violência Doméstica" OR "Social Behavior Disorders" OR "Trastorno de la Conducta Social" OR "Transtornos do Comportamento Social" OR aggression OR Agresión OR Agressão OR Homicide OR Homicidio OR Homicídio OR bully OR "Acoso Escolar" OR Bullying OR "oppositional defiant disorder" OR "trastorno desafiante por oposición" OR "transtorno desafiador de oposição" OR "conduct disorder" OR "Trastorno del Comportamiento" OR "Transtorno da Conduta" OR "transtorno desafiador-opositivo" OR "conducta antisocial" or "transtorno da conduta" OR "transtorno da personalidade anti-social" OR "Transtornos do

Comportamento"

[Subject descriptor]

**RUN 4**

child OR children OR adolescent OR Adolescente OR child\$ OR adolescen\$ OR youth\$ OR student\$ OR teen\$ OR boy\$ OR girl\$ OR pupil\$ OR youngster\$ OR juvenile\$ OR infant\$ OR infan\$ OR baby OR babies OR preschool OR preschool\$ OR criança OR infant OR infants OR lactante OR lactente OR neonat\$ OR baby OR babies OR kid OR kids OR toddler\$ OR jóvenes OR niña OR niño OR criança OR newborn

[Words]

**AND**

gang OR gangs OR pandilla OR quadrilha OR crimes OR criminal OR Crimen OR Crime OR antisocial OR anti-social OR "antisocial behavio\$r" OR "anti-social behavior" OR "comportamento anti-social" OR "conducta anti-social" OR "conducta antisocial" OR violen\$ OR Violencia OR Violência OR violence OR violent OR bully\$ OR "Acoso Escolar" OR Bullying OR aggress\$ OR aggression OR Agresión OR Agressão OR Homicidio OR Homicídio OR Acoso Escolar OR "domestic violence" OR "Violencia Doméstica" OR "Violência Doméstica"

[Words]

**NOT**

liposarcoma

**RUN 5**

"Child Behavior Disorders" OR "delinquencia" OR "delinquencia femenina" OR "delinquencia juvenil" or delincuencial or delincuenciales or delincuente or delinquentes OR "juvenile delinquency" OR delincuen\$ OR "Delincuencia Juvenil" OR "Delinquência Juvenil" OR "Transtornos do Comportamento Infantil" OR Delinquencia or Delinquen\$ or "Transtornos de la Conducta Infantil" or Transtornos do

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"Comportamento Infantil"  
[Words]

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SciELO

[www.scielo.br](http://www.scielo.br)  
<http://www.scielo.br/cgi-bin/wxis.exe/iah/>

**RUN 1**

child OR niño OR criança OR infant OR lactante OR lactente OR Adolescent OR Adolescente OR child OR children OR adolescent OR child\$ OR adolescen\$ OR youth\$ OR student\$ OR teen\$ OR boy\$ OR girl\$ OR pupil\$ OR youngster\$ OR juvenile\$ OR infant\$ OR infan\$ OR baby OR babies OR preschool OR preschool\$ OR criança OR infant OR infants OR lactante OR lactente OR neonat\$ OR baby OR babies OR kid OR kids OR toddler\$ OR jóvenes OR niña OR niño OR criança OR newborn  
[All indexes]

AND

"Acoso Escolar" OR "Violência Doméstica" OR Transtornos do Comportamento OR "Transtornos do Comportamento Social" OR Agressão OR Homicídio OR Bullying OR "transtorno desafiador-opositivo" OR "Transtorno da Conduta" OR "conducta antisocial" or "transtorno da conduta" OR "transtorno da personalidade anti-social"  
[Subject descriptor]

**RUN 2**

child OR niño OR criança OR infant OR lactante OR lactente OR Adolescent OR Adolescente OR child OR children OR adolescent OR child\$ OR adolescen\$ OR youth\$ OR student\$ OR teen\$ OR boy\$ OR girl\$ OR pupil\$ OR youngster\$ OR juvenile\$ OR infant\$ OR infan\$ OR baby OR babies OR preschool OR preschool\$ OR criança OR infant OR infants OR lactante OR lactente OR neonat\$ OR baby OR babies OR kid OR kids OR toddler\$ OR jóvenes OR niña OR niño OR criança OR newborn  
[All indexes]

AND

gang OR gangs OR pandilla OR quadrilha OR crimes OR criminal OR crimen OR crime OR "comportamento anti-social" OR "conducta anti-social" OR violence OR violen\$ OR Violencia OR Violência OR violent OR bully\$ OR aggress\$ OR aggression OR Agresión OR Agressão OR Homicídio OR Homicidio OR Acoso Escolar OR bullying OR domestic violence OR Violencia Doméstica OR Violência Doméstica OR conducta antisocial OR "Transtorno da Conduta" OR "transtorno desafiador de oposição" OR "transtorno da personalidade anti-social" OR "Transtornos do Comportamento"  
[All indexes]

**RUN 3**

"delinquencia" OR "delinquencia femenina" OR "delinquencia juvenil" or delincencial or delincuenciales or delincuente or delinquentes OR "Transtornos do Comportamento Infantil"  
[Subject descriptor]

**RUN 4**

Delinquencia or Delinquen\$ or Transtornos do Comportamento Infantil  
[All indexes]

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## Appendix B: Document coding protocol

### Reference information

1. Document ID
2. Study author/s
3. Study title
4. Publication year
5. Full APA-style reference
6. Reference type:
  - a. Book
  - b. Journal article (peer reviewed)
  - c. Dissertation or thesis
  - d. Government report
  - e. Police report
  - f. Technical report
  - g. Conference paper
  - h. Other (specify) \_\_\_\_\_
7. Coder's name; date coded

### Study details (complete for each study reported)

8. Country of intervention \_\_\_\_\_
9. Document language \_\_\_\_\_
10. Date of research
  - a. Start: \_\_\_\_\_
  - b. Finish: \_\_\_\_\_
11. Source of funding for study
  - a. Government
  - b. Foreign government
  - c. Local university/research body
  - d. Foreign university/research body
  - e. Other \_\_\_\_\_
12. Bodies involved (tick all applicable)
  - a. Police/ Justice system
  - b. Health Service
  - c. Other government departments
  - d. University/research agency

e. Other \_\_\_\_\_

13. Evaluated by \_\_\_\_\_

14. Conflict context?

a. Yes

b. No

15. Ethical issues?

a. Yes (describe) \_\_\_\_\_

b. No

## **Methodology**

16. Type of study:

a. Longitudinal

b. Cross-sectional

c. Case control

17. Comparison group present?

a. Matched

i. Statistical post-hoc

ii. Propensity matching

iii. Case control

b. Unmatched

18. Unit of analysis \_\_\_\_\_

19. Measure of gang involvement:

a. Gang membership

b. Gang affiliation

c. Involvement in gang-related crime

d. Ex-gang member

e. Other \_\_\_\_\_

20. Source of gang involvement measure:

a. Obtained from official data (government/police)

b. Self-reported

c. Peer-reported

d. Family-reported

e. Practitioner-reported

f. Other \_\_\_\_\_

21. Term/s used by author to describe gang:

- a. Gang
- b. Pandilla
- c. Maras
- d. Street children
- e. Other \_\_\_\_\_

22. Author definition of gang:

- a. Eurogang definition
- b. Not specified
- c. Other \_\_\_\_\_

23. Sample size

- a. Total sample size \_\_\_\_\_
- b. Sample size of comparison group \_\_\_\_\_
- c. Sample size of gang-involved group \_\_\_\_\_

24. Was attrition a problem?

- a. Yes (describe) \_\_\_\_\_
- b. No
- c. Not applicable

25. Initial response rate \_\_\_\_\_

26. Sample age \_\_\_\_\_

27. Sample gender

- a. Male
- b. Female
- c. Mixed

28. Sample socio-economic status

- a. Low
- b. Average
- c. High
- d. Mixed
- e. Other \_\_\_\_\_

**Risk of Bias**

29. Study population description. Does the document describe the source population in replicable detail?

- a. Yes
- b. No

c. Unclear

30. Study population criteria: Does the document list all inclusion and exclusion criteria for participation?

a. Yes

b. No

c. Unclear

31. Prospective study: Was the study prospective (ie the sample was selected prior to the onset of gang membership)?

a. Yes

b. No

c. Unclear

32. Outcome descriptor: Were the gang membership criteria described in replicable detail?

a. Yes

b. No

c. Unclear

33. Predictor description: Were all predictors described in replicable detail?

a. Yes

b. No

c. Unclear

34. Predictor validity: Were all measures of the predictors based on a validated measure?

a. Yes

b. No

c. Unclear

35. Predictor timing: Were all predictors either measured before the onset of gang membership or measured retrospectively to a time prior to gang membership?

a. Yes

b. No

c. Unclear

36. Selective predictor reporting: was the study free from predictor reporting bias?

a. Yes

- b. No
- c. Unclear

37. Selective analysis reporting: was the study free from analysis reporting bias?

- a. Yes
- b. No
- c. Unclear

**Predictors (complete for each predictor reported)**

38. Predictor \_\_\_\_\_

39. Conceptual definition of predictor \_\_\_\_\_

40. Operation definition \_\_\_\_\_

41. Where was the predictor variable obtained?

- a. Official data (government/police)
- b. Self-reported
- c. Peer-reported
- d. Family-reported
- e. Practitioner-reported (including school)
- f. Other \_\_\_\_\_

42. Measured retrospectively?

- a. Yes
- b. No
- c. Unclear

43. Time-invariant predictor? (if the study design is not longitudinal and the factor is not time-invariant, the predictor will be classified as a correlate)

- a. Yes
- b. No
- c. Unclear

44. Age group associated with predictor

- a. Under 6 years
- b. 6-11 years
- c. 12-14 years
- d. Over 14 years
- e. Other age categorisation \_\_\_\_\_

45. Predictor domain

- a. Individual
- b. Peer
- c. Family
- d. School
- e. Community
- f. Other \_\_\_\_\_

46. Raw difference shows predictor is more likely to occur in:

- a. Gang-involved group
- b. Comparison group
- c. Neither (exactly equal)
- d. Cannot tell (or statistically insignificant report only)

47. Did a test of statistical significance indicate statistically significant differences between the comparison and gang-involved groups?

- a. Yes
- b. No
- c. Can't tell
- d. N/A (no testing completed)

48. Was a standardized effect size reported?

- a. Yes
- b. No

*If Yes:*

49. Effect size measure \_\_\_\_\_

50. Effect size \_\_\_\_\_

51. Standard error of effect size \_\_\_\_\_

52. Effect size reported on page number \_\_\_\_\_

*If No:*

53. Are data available to calculate effect size?

- d. Yes
- e. No

54. Type of data effect size can be calculated from:

- a. Means and standard deviations
- b. Frequencies or proportions (dichotomous)
- c. Frequencies or proportions (polychotomous)
- d. Unadjusted correlation coefficient

- e. Multiple regression coefficients (unstandardized)
- f. Multiple regression coefficients (standardized)
- g. *t*-value or *F*-value
- h. Chi-square (*df*=1)
- i. Other (specify) \_\_\_\_\_

*Means and Standard Deviations*

- 55. Gang-involved group mean. \_\_\_\_\_
- 56. Comparison group mean. \_\_\_\_\_
- 57. Gang-involved group standard deviation. \_\_\_\_\_
- 58. Comparison group standard deviation. \_\_\_\_\_

*Proportions or frequencies*

- 59. *n* of gang-involved group with the predictor. \_\_\_\_\_
- 60. *n* of comparison group with the predictor. \_\_\_\_\_
- 61. Proportion of gang-involved group with the predictor. \_\_\_\_\_
- 62. Proportion of comparison group with the predictor. \_\_\_\_\_

*Regression coefficients and correlations*

- 63. Unadjusted correlation coefficient \_\_\_\_\_
- 64. Standardized regression coefficient \_\_\_\_\_
- 65. Unstandardized regression coefficient \_\_\_\_\_
- 66. Standard deviation of predictor \_\_\_\_\_
- 67. Control variables \_\_\_\_\_

*Significance Tests*

- 68. *t*-value \_\_\_\_\_
- 69. *F*-value \_\_\_\_\_
- 70. Chi-square value (*df*=1) \_\_\_\_\_

*Calculated Effect Size*

- 71. Effect size \_\_\_\_\_
- 72. Standard error of effect size \_\_\_\_\_

**Authors' conclusion**

- 73. What did the authors conclude about the relationship?
  - a. Predictor increases gang membership
  - b. Predictor reduces gang membership
  - c. No effect of predictor on gang membership
  - d. Unclear/no conclusion stated by authors