Emotional and behavioral difficulties in children growing up homeless in Paris. Results of the ENFAMS survey

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Abstract

Purpose: Children growing up in homeless families are disproportionately more likely to experience health and psychological problems. Our objective was to describe social, environmental, individual and family characteristics associated with emotional and behavioral difficulties among homeless children living in the Paris region.

Methods: Face-to-face interviews with a representative sample of homeless families were conducted by bilingual psychologists and interviewers between January and May 2013 (n=343 children ages 4-13 years). Mothers reported children's emotional and behavioral difficulties (Strength and Difficulties Questionnaire - SDQ), family socio-demographic characteristics, residential mobility, and parents' and children's physical and mental health. Children were interviewed regarding their perception of their living arrangements, friendships and school experiences. We studied children's SDQ total score in a linear regression framework.

Results: Homeless children had higher SDQ total scores than children in the general population of France, (mean total score =11.3 vs 8.9, p<0,001). In multivariate analyses, children's difficulties were associated with parents' region of birth (beta=1.74 for Sub-Saharan Africa, beta=0.60 for Eastern Europe, beta=3.22 for other countries, p=0.020), residential mobility (beta=0.22, p=0.012), children's health (beta=3.49, p<0.001) and overweight (beta=2.14, p=0.007), the child's sleeping habits (beta=2.82, p=0.002), the mother's suicide risk (beta=4.13, p<0.001), the child's dislike of the family's accommodation (beta=3.59, p<0.001) and the child's experience of bullying (beta=3.21, p=0.002).

Conclusions: Children growing up homeless experience high levels of psychological difficulties which can put them at risk for poor mental health and educational outcomes long-term. Access to appropriate screening and medical care for this vulnerable yet underserved group are greatly needed.

Keywords: homeless, children's mental health, emotional and behavioral difficulties

1. Introduction

Homelessness has increased in recent years in many European countries [1] and is known to be an important determinant of mental health. France is a “corporatist conservative welfare regime”, has well-functioning safety nets and the living conditions (access to housing, schooling, health care…) of poor households are still preferable to those in many other countries. But housing inequality is increasing more rapidly than elsewhere, leading to the exclusion of some groups of the population from certain social benefits [1]. In 2013, the ENFAMS survey [2] estimated that over 10,280 homeless families were accommodated in the Paris area, corresponding to approximately 35,000 people including 17,660 children. These estimates do not take into account families housed by friends or relatives, implying that the overall number of families without a stable accommodation is actually higher.

The increase in the number of homeless families in the Paris region in recent years [3] is due to several factors. First, real estate prices have grown drastically in recent years, much more rapidly than household income or the number of subsidized housing units. Second, in France, social benefits are insufficient to reduce financial, job and housing insecurity for single mothers with children. However, in Paris, as in other large cities in Europe, one child out of three does not live with both of his/her parents, and the number of single-parent families among the most socioeconomically deprived groups is even greater. Third, the number of migrants who do not have a visa enabling them to work and access affordable housing has grown. Compared to other European countries, the proportion of foreigners among individuals who are homeless is high in France, and has recently increased (38% in 2001, 52% in 2012) [1]. Fourth, applying for sheltered accommodation is a complex process, especially for foreign families who are mobile, socially excluded and often non-francophone [2–4].

General risk factors for psychiatric difficulties in children include: genetic risk factors [5,6], parental and maternal poor physical and mental health [7–13], as well as prenatal [14,15], obstetrical

complications [16], low socio-economic status (single-parent family, low educational or income level, food insecurity) [17–23], negative life events [11,22], low social networks and support [23], as well as domestic violence [24–26] and child maltreatment [26–30]. Children growing up in homeless families are disproportionately exposed to many of these exposures and experiences.

Additionally, homeless families experience loss of property, disruption of school and community relationships [31], dramatic changes in family routine [32] or residential instability, which may have consequences on children's emotional and behavioral well-being [10,33,34].

Furthermore, factors specific to homeless families may also play a role, including the physical quality, crowding, affordability, place and stability of living arrangements [10,11,22,29,35], as well as children's school experience (e.g. school mobility, absenteeism, educational outcomes and academic achievement) [36,37].

Previous epidemiological surveys on homeless children's emotional and behavioral difficulties were predominantly conducted in the 1980's and 1990's in the United States [11,38]. Yet the socio-demographic characteristics and life trajectories, as well as the organization of health care services and their use by homeless populations can vary from one country to another. For instance, in the United States, many homeless families are African-American and single-parent [24,39].

Therefore we aimed to 1) describe emotional and behavioral difficulties in children growing up in homeless families in the context of a large European city - Paris and 2) identify social, environmental, individual and family factors associated with these difficulties.

2. Materials and Methods

2.1. Sample

The ENFAMS survey (a French acronym for "Enfants et familles sans logement") [2] was conducted from January to May 2013 to describe the socio-demographic and health characteristics of homeless families in the Paris region (approximately 12 million inhabitants). Following guidelines from France's National Institute of statistics (INSEE), a person is considered to be homeless on any given day if he or she spent the previous night in a sheltered accommodation or slept in a place not intended for living (on the street, in a squat, vehicles, abandoned buildings, public places including streets, parks etc.) [26]. A time-location sampling design was used [2].

First, all housing facilities open to homeless families in the Paris region (e. g. emergency shelters, long-term re-habilitation centers, social hotels and accommodation for asylum seekers) were listed. Emergency shelters are generally characterized by group accommodations that are short term and provide only basic services (e.g. breakfast). Long-stay hostels (rooms in a collective facility but also self-contained flats or hotel rooms), are characterized by stays lasting up to several months and a larger number of services (e.g. access to a kitchen). Asylum seekers are in principle accommodated in special accommodations. However, since the early 2000s, there have been a shortage of beds in these centers, resulting in asylum seekers being accommodated in inexpensive hotels. Second, the number of families and children within each homeless housing facility were estimated in a telephone survey. Third, families were selected using simple random sampling in each selected accommodation. Fourth, one child was randomly chosen in each family among all those younger than 13 years (simple random sampling).

The study design was approved by the French National confidentially Committee (CNIL).

2.2. Participation in the ENFAMS survey

The ENFAMS survey recruited 251 randomly selected housing facilities in the Paris region (82% participation). In these housing facilities, 1,238 families were selected to participate in the survey (65% participation) yielding a sample of 801 families. In each family, the mother (or the father if the mother was not present) and one child under the age of 13 years were randomly selected to participate. Families who did not participate in the ENFAMS survey were characterized by younger maternal age (33 vs. 38 years), a higher proportion of men (15.3 vs. 4.6% among study participants), and a higher proportion of families with two or more children (31.7 vs. 23.1% among study participants) [2]. Reasons most frequently cited to explain non-participation were: lack of interest (17%), lack of time (14%) or the other parent's lack of written consent (11%). In this article we studied families with 4-13 year-old children who completed the SDQ.

2.3. Measures and questionnaires

Study data were collected in face-to-face interviews with self-report questionnaires completed by the mother and children above 6 years old. Interviews were conducted by trained interviewers and research psychologists in seventeen different languages **(Figure 1)**.

2.3.1. Children's emotional and behavioral difficulties

Children's emotional and behavioral difficulties (4 to 13 years) were ascertained by their parent using the Strengths and Difficulties Questionnaire (SDQ) [40]. The SDQ is a short behavioral screening questionnaire which includes 25 items divided into 5 subscales: emotional problems, conduct problems, hyperactivity/inattention, peer relationship problems and pro-social behavior. Each item is rated on a 0-2 scale: "not true", "somewhat true" or certainly true". A "Total Difficulties" scale is derived from the sum of scores of the first four scales and ranges 0 to 40 (SDQ total score). If less than 3 items were missing, missing data were imputed by the mean on items that were complete.

The SDQ can be analyzed as a score or dichotomized using standard cut-offs which match the top 90% of the distribution in the general population [41]. The SDQ has previously been validated in different languages and cross-cultural settings [41–43] and had good reliability (Cronbach's alpha = 0.76) in the present setting.

2.3.2. Child and parent characteristics

Participants' characteristics included:

- the *child's demographic characteristics*: age, sex, country of birth and number of cohabitating siblings;
- *parents' socio-demographic characteristics*: region of birth (**Table 1)**, legal status, health insurance status, health care use, proficiency in French, migratory trajectory (i.e. time since the family arrived in France), residential mobility (i.e. time since the family became homeless and the number of moves since then), social network (i.e. the number of contacts with family members each month in the preceding 12 months), food insecurity in the preceding 12 months (assessed using the French version of the US Household Food Security Module [44,45]);
- the *child's health*: health problems ascertained by the following question: "Is your child being treated for a disease or a health problem that requires specific care?"). respiratory problems (ascertained by the following question: "in the past year, did your child have respiratory problems (a cough, a tightness in his/her chest, wheezing)?") [46]; anemia (ascertained by blood sample collected by nurses); body mass index- BMI (ascertained by study nurses), sleeping habits (assessed by bedtime and time of awakening).*mother's negative life event and Post Traumatic Stress Disorders*: ascertained by the following question: "At some point in your life, have you experienced a terrible, frightening or horrible event that caused you to have distressing memories or nightmares, to feel isolated or distant from others, to have

difficulty sleeping or concentrating, or to be excessively nervous?" and the MINI (Mini International Neuropsychiatric Interview [47])

- *mother's health*: self-reported physical health (very good, good or fair physical health vs. bad or very bad health); major depression (ascertained using the Composite International Diagnostic Interview [48]), suicide risk (ascertained using the Mini International Neuropsychiatric Interview [47]) and experience of domestic violence in the preceding 12 months (based on measures used in a study conducted by the National Institute of Demography : "VIRAGE" [49])".]);

In secondary analyses, we focused on children aged 6 to 13 years. In France, 6 is the age of compulsory schooling and children up to age 6 can receive free medical preventive care, making 6 years a relevant age in terms of policy. Additionally, in the ENFAMS survey children aged 6 years and older were asked to report their life experiences regarding homelessness (e.g. "Do you feel at home in this shelter?"), their school experience (e.g. "How do you feel at school"), their friendships (e.g. "How many friends do you have?", "When you have secret, who can you tell about it?"), their joys and sorrows (e.g. "What's your best time since the end of holidays?", "Does it happen to you to be sad, to have sorrows or feel sorry for somebody?").

2.4. Statistical analysis

Our analysis was based on a sample of 343 children aged 4-13 years with complete data on behavior. Whenever the number of missing observations exceeded 4%, a "missing data" category was created and included in the analyses.

First, to describe emotional and behavioral difficulties of children growing up in homeless families, we computed the 5 SDQ subscales and compared them with a general population sample of 1,348 French children [50] using student t-tests.

Second, to identify family and child characteristics associated with children's overall emotional and behavioral difficulties, we used a weighted linear regression model. All the variables significantly

associated with the SDQ total score ($p<0.2$) in univariate analyses were included in the multivariate analysis. The multivariate analysis systematically adjusted for children's age and sex as well as parents' legal status. Statistical significance was defined as $p=0.05$.

In complementary analyses: 1) we restricted our sample to children aged 6 years or older to study child reported characteristics; 2) we checked for interactions between all factors significantly associated with children's characteristics and sex, because of potential differences between boys and girls [29,51]; 3) we conducted additional analyses among children of suicidal mothers (extreme group).

All statistical analyses were performed with R; we used the "survey" weighting package to account for study design.

3. Results

3.1. Descriptive characteristics

Child and family characteristics are shown in **Tables 2 and 3**. To summarize, 34.5% of study children were 4-6 years of age, 47.2% were male, 42.8% were born in France **(Figure 2)**, and 88.8% went to school. Parents' mean age was 35 years and 71.9% had legal status in France. Almost three-quarters (72.6%) of families lived in a social hotel, 78.9% were unemployed and 64.4% were not proficient in French. Most families (92.9%) had an income below poverty level (964 euros/month/UC) and were food insecure (84.0%).

3.2. Children's emotional and behavioral difficulties

Overall, 20.8% of children in the study had a high level of emotional or behavioral difficulties; 28.3% had a high level of emotional difficulties, 23.9% had conduct problems, 17.7% had a high level of symptoms of hyperactivity-inattention and 10.7% had peer relationship problems **(Table 4)**.

Average SDQ total scores were higher among children in our sample than in the general population of children in France: SDQ total score 11,3 (95%CI=[10.4;12.0]) versus 8,9 (95%CI=[8.6;9.2]) ($p<0.001$) [44]. However, among children with high levels of emotional and behavioral difficulties, only 5% received medical or social care.

3.3. Univariate regression analysis: factors associated with children's emotional and behavioral difficulties

As shown in **Table 5**, factors associated with children's emotional and behavioral difficulties were the following: the child's sex (beta=1.59 in boys , $p=0.043$), the number of cohabitating siblings (beta= 0.83 for each brother or sister, $p=0.016$), the parent's region of birth (beta=2.22 among parents born in Sub-saharan Africa, beta=0.37 among parents born in Eastern Europe and beta=3.43 among parents born in other countries, $p=0.016$), social networks (beta=0.08 for each contact with family in the month, $p<0.001$), the child's health problems (beta=3.19, $p<0.001$), the child's respiratory

problems (beta=1.69, p=0.001), the child's overweight status (beta=2.02, p=0.031), the child's sleeping habits (beta associated with bedtime after 10PM=2.18, p=0.043), the mother's depression and suicide risk (respectively beta= 3.28, p=0,004 and beta=5.79, p<0.001), the mother's poor physical health (beta=3.57, p=0.011), the child's dislike of the family's accommodation (beta=4.89, p<0.001), and the child's experience of bullying (beta=5.25, p<0.001).

3.4. Multivariate analysis

In the multivariate analysis (**Table 6**), after adjustment for children's age and sex as well as parents' legal status, factors associated with children's emotional and behavioral difficulties included parents' region of birth (beta=1.74 for Sub-Saharan Africa, beta=0.60 for Eastern Europe, beta=3.22 for other countries, p=0.020), residential mobility (beta=0.22, p=0.012), children's health (beta=3.49, p<0.001), the child's overweight status (beta=2.14, p=0.007), the child's sleeping habits (beta=2.82, p=0.002), the mother's suicide risk (beta=4.13, p<0.001), the child's dislike of the family's accommodation (beta=3.59, p<0.001) and the child's experience of bullying (beta=3.21, p=0.002).

3.5. Additional analyses

Our supplementary analyses stratified on children's sex showed that boys whose mother experienced a risk of suicide had a higher level of total difficulties than girls (beta=7.3 vs. 3.9, p-value for interaction test=0.233).

Among children of suicidal mothers, 52.9% have a high level of emotional and behavioral difficulties, compared with 16.2% among children of mothers without suicidal risk (p<0.001).

4. Discussion

4.1. Main findings

In our study of children aged 4-13 years growing up in homeless families in the Paris region, we found high levels of emotional and behavioral difficulties. Homeless children's difficulties were associated with children's older age, parent's region of birth (particularly Sub-Saharan Africa), residential mobility, the child's health problems, and overweight, the child's inadequate sleeping habits, poor maternal mental health, as well as the child's negative perception of his/her living arrangements and experience of school bullying. It is important to note that most families in our study were migrant, therefore we are not able to distinguish the contribution of characteristics specific to migrants from those of homelessness.

4.2. Limitations

Our study has limitations which need to be acknowledged prior to interpreting the data. First, ENFAMS is a cross-sectional survey and the direction of associations between some of the associated factors studied (for instance, sleeping difficulties or the experience of bullying) and children's emotional and behavioral outcomes is difficult to determine. Nevertheless, it is unlikely that children's difficulties precede several other risk factors identified in this study, such as maternal poor physical health or suicide risk. Second, lack of statistical power and population homogeneity (most families were very poor) may explain why some factors (e.g. food insecurity) were not associated with children's well-being. Additionally, given the disadvantaged socioeconomic status of the sample, it is hard to disentangle the role of homelessness from that of being very poor and being migrants. Similarly, many parents had a high educational level and many mothers were depressed. Most other studies of homeless individuals relied on samples that were of similar size and experienced similar difficulties [39,52–55]. Nevertheless, future research should aim to include larger samples in order to have the possibility to study children's outcomes and associated risk factors in detail. Third, in more than 4% of cases data were missing on some variables, which led us to include a 'missing data'

category in our analyses. We have many missing data for the measure of domestic violence because sometimes the partner was present and mothers refused to answer. Reassuringly, multivariate analyses repeated after excluding children with missing data (n=158) showed results consistent with our main findings. Fourth, children's behavior was ascertained by their mother, which may induce reporting bias, particularly if the mother is depressed. Nevertheless, parental reports of children's behavior appear to be valid regardless of parental mental health [56]. Finally, several factors potentially associated with children's emotional and behavioral development were not measured in the ENFAMS survey: family social support (financial assistance, babysitting, housing…) [57–59], parenting style [60,61] and parental use of psychoactive substances [62–64]. Nevertheless, it is unlikely that these characteristics confound associations between maternal mental and physical health or children's experience of bullying and their emotional and behavioral difficulties which we observed.

4.3 Strengths

Despite these limits, our study has strengths which deserve to be highlighted. First, the ENFAMS survey includes a multicultural sample of homeless families, who are rarely studied. Second, we used validated measures of maternal and child psychological well-being. Third, the dimensional measurement of children's emotional and behavioral difficulties reflects more closely the spectrum of different behavioral styles than do dichotomous measures [65]. Fourth, the collection of children's reports on their feelings and perceptions of their living conditions makes it possible to identify factors associated with their emotional and behavioral difficulties which may go undetected by parents, such as the child's dislike of his/her shelter or school bullying.

4.4 Comparison to prior studies

Contrary to prior research among homeless families, in our study, children's emotional and behavioral difficulties were associated with neither family status, nor parental educational level, employment status, income or food insecurity [11]. Additionally, we found no association with

maternal depression or PTSD. The high prevalence of maternal depression (23.0%) and PTSD (18.5%) and the lack of statistical power may explain this null finding. However, maternal suicide risk – often a manifestation of severe depression - was relevant, indicating the role of maternal health as a determinant of children's well-being.

Our results are consistent with prior research showing that children's health (health problems that requires specific care, respiratory problems, overweight, sleeping habits) [11,66] and maternal mental health [11,12] is associated with children's emotional and behavioral difficulties.

Some authors have underlined the importance for children of feeling that they "have a home" as well as of family and community factors [35]. While bullying is also a risk factor of poor psychological health in children who are not homeless, homeless children may experience bullying more frequently because they do not fit in [67,68]. These social difficulties may be encountered both at school and in the housing facility where many families live together. Furthermore, some children could be rejected because of their emotional and behavioral difficulties. Our study shows that the child's dislike of his/her housing facility and experience of bullying at school are associated with psychological difficulties, confirming the importance of these issues.

Overall, our results point to the need for social policies to address school bullying helping children to change address the school climate and monitor children's perception of their life experience.

4.5 Clinical and policy implications

We observed high levels of emotional and behavioral difficulties in children whose families are homeless, yet most of them do not have access to appropriate healthcare. Although our study is cross-sectional, several clinical and policy implications can be drawn.

First, family household residential mobility is associated with children's well-being and granting poor families access to stable housing could help improve children's short and long-term outcomes [10,11,69–73]. Other countries have implemented policies which reduced homelessness (e.g. the Paavo project in Finland [74] or the "At Home/Chez Soi" project in Canada [75]). In the USA, the aim

of the "Homeless Prevention and Rapid Re-housing Program" is to quickly place families in stable, permanent housing rather than a continuum of emergency and temporary housing [76]. France made fighting homelessness a 'national priority' for the period 2008-2012, which led to an evaluation of the supply and demand of shelters and housing facilities across the country, the provision of housing facilities for 13,000 individuals and the construction of 150,000 social housing units. Unfortunately, the impact of this program is unknown and it has not been extended beyond 2012 [1]. Housing conditions could improve children's health and housing stability could also facilitate children's and parents' access to mental health care in case of need, provided they are close to a medical center [77]. Furthermore, access to primary care and a regular follow-up makes prevention possible.

Second, barriers to healthcare access, such as parents' lack of knowledge of the health system or lack of proficiency in French, could be addressed by the promotion of free mental health consultations with the possibility of being helped by a trained translator. Such free consultations exist in most university hospitals in France, but the way in which they are implemented and their capacity vary widely. Furthermore, in a more general way, in France there is need for more pediatric mental health professionals; In the USA, the SAMHSA program seems effective in this regard [78]. Moreover access to translation services is generally unsatisfactory. Additionally, public hospitals may be difficult to access and intimidating, therefore access to free primary care services in ambulatory settings should be promoted. Another point is that primary care providers (pediatricians, general practitioners, emergency doctors, etc) are not familiar with children of homeless families. They should become familiar with government and community based services that assist families with unmet social and economic needs. The American Academy of Pediatrics recommends that primary care practionners address issues of access to care and coordinate health care with community-based services [76].

Third, the development of mother and child healthcare centers, which are free and provide preventive health services (e.g. vaccination) to all children regardless of their parents' administrative

or health care characteristics, could improve access to health care for families with psychological difficulties [77]. In particular, the structures could extend children's follow-up beyond age 6, and improve screening of parent mental health and parental difficulties [79,80]. Some studies show the effectiveness of interventions designed to develop children's psychosocial skills and parental abilities [81–86]. They are primarily focused on parents' and children's stress and anger management, relationships with peers, and development of good mother-children interactions. Such interventions could greatly benefit the most socially disadvantaged children, including those who grow up homeless [87,88].

Fourth, interventions increasing awareness about school bullying, specifying rules and social norms against bullying, and providing support and protection for children who are bullied (social worker support, mentoring) have proved successful and should be generalized [67,68,72,89].

5. Conclusion

Children growing up in homeless families have high levels of emotional and behavioral difficulties, in part in relation to their mothers' mental health difficulties and their family's difficult living conditions. Access to appropriate medical care for children and their parents could limit the impact of these early difficulties on children's later health and social outcomes. Heightening caretakers' awareness of the role of children's social and school integration with regard to their emotional and behavioral difficulties could improve their long-term educational and health outcomes. Most adult mental health problems begin in childhood, and improving the psychological well-being of children living in poverty offers the possibility of decreasing the level of psychiatric disorders and social inequalities in this area in the next generation.

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Conflict of Interest

The authors declare that they have no conflict of interest

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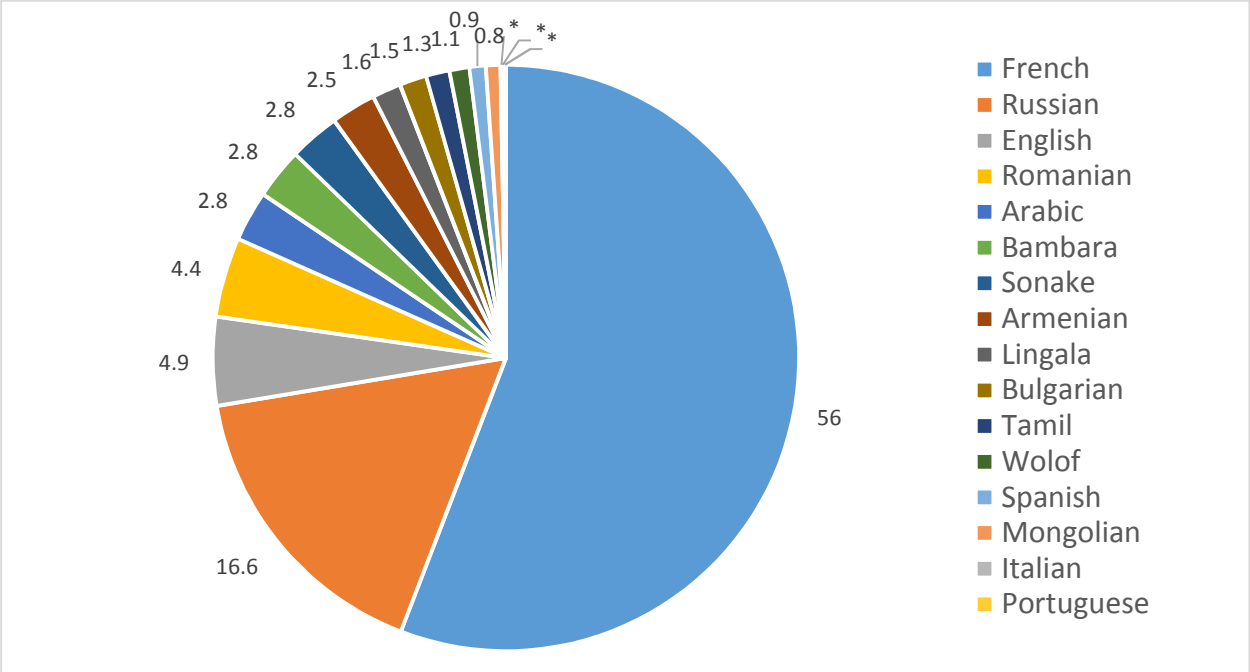
Figure 1 – Parents's spoken language of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)



* 0.1

Figure 2 – Region of birth of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)

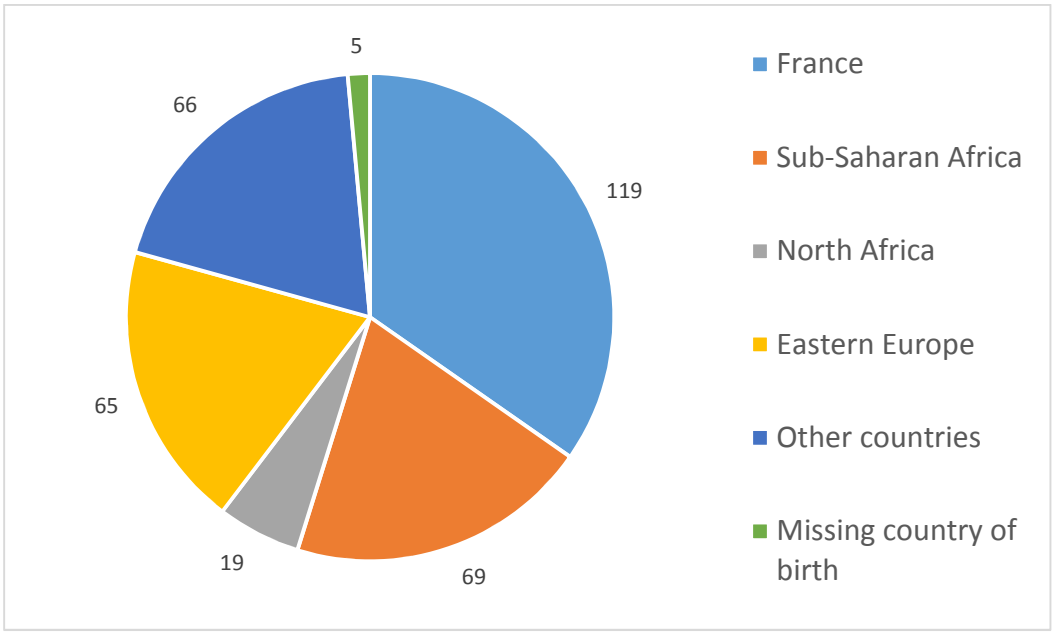


Table 1 – Parent's region of birth, of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)

Parent's region of birth		Prevalence (%)
Sub-Saharan Africa	Central Africa	13.1
	West Africa	29.2
	East Africa	1.9
North Africa	North Africa	15.2
Eastern Europe	Eastern Europe	21.1
Others	South America	0.1
	Central Asia	1.1
	South Asia	1.1
	South-eastern Asia	1.0
	Western Asia	9.8
	Easten Asia	0.6
	Caribbean	0.3
	Southern Europe	1.4
	Western Europe	4.0

Table 2 – Characteristics of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)

	n	estimated prevalence/mean	IC 95
Younger than 6 years	116	34.5	[28.4;40.6]
6 years old and older	227	65.5	[59.4;71.6]
Girls	180	52.8	[46.1;59.5]
Boys	163	47.2	[40.5;53.9]
Number of cohabiting siblings		2.2	[2.0;2.4]
Child born abroad	219	55.5	[47.5;63.5]
Child born in France	119	42.8	[34.7;50.8]
Missing country of birth	5	1.7	[0;3.4]
Schooled	306	88.8	[84.6;93.1]
Unnschooled	35	10.1	[6.3;13.9]
Missing schooling information	2	1.1	[-0.5;2.6]
Children without health problem that requires specific care	287	82.2	[75.7;88.8]
Children with health problem that requires specific care	51	16	[9.5;22.5]
Missing data on children's health	5	1.8	[0;3.5]
Children without respiratory problem	225	64.2	[57.9;70.6]
children with respiratory problem	112	33.8	[27.5;40.0]
Missing data on children's respiratory problem	6	2.0	[2.3;3.8]
No anemia, or light anemia	235	70.1	[62.4;77.7]
Moderate or hight anemia	70	19.9	[12.7;27.0]
Missing data on children's anemia	38	10.1	[6.1;14.0]
Thin or normal child's BMI	234	65.3	[58.2;72.4]
Overweight or obese child	73	23.9	[17.9;29.9]
Missing BMI	36	10.8	[5.9;15.8]
Bedtime before 10PM	199	59.7	[53.5;66.0]
Bedtime after 10PM	100	26.3	[20.6;32.0]
Missing bedtime data	44	13.9	[8.9;18.9]
Child's like of the family's accommodation	155	68.4	[61.5;75.3]
Child's dyslike of the family's accommodation	57	27.3	[20.6;34.0]
Missing data on family's accommodation	9	4.3	[1.3;7.3]
Child's inexperience of bullying	145	67.1	[58.7;75.5]
Child's experience of bullying	49	26.4	[18.5;34.2]
Missing data on experience of bullying	8	6.5	[0.1;13.0]

Table 3 – Parents' characteristics of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)

	n	estimated prevalence/mean	IC 95
Age		35.2	[34.3 ; 36.1]
Parent born in North Africa	37	15.2	[9.2 ; 21.2]
Parent born in Sub-Saharan Africa	157	44.2	[37.9 ; 50.5]
Parent born in Eastern Europe	72	21.1	[15.9 ; 26.2]
Parent born in other countries	77	19.5	[15.1 ; 23.9]
Legal residence status in France	215	71.9	[66.9;76.9]
Undocumented administrative status	48	15.7	[11.4;20.1]
Ongoing Asylum procedure	59	12.3	[9.0;15.6]
Missing data on administrative status	1	0.1	[-0.1;0.3]
Social hotel	219	72.6	[67.1;78.1]
Emergency housing centre	24	3.5	[1.9;5.1]
Housing facility for asylum-seekers	46	4.5	[3.5;5.5]
Long-term shelter	54	19.4	[13.8;25.1]
Two parent family	174	50.6	[44.4;56.8]
Single parent family	169	49.4	[43.2;55.6]
Medical insurance present	264	76.5	[58.8;94.2]
Medical insurance absent	78	22.7	[17.8;27.6]
Missing data on medical insurance	1	0.7	[-0.6;2.1]
Educational level ≥ high school	167	45.7	[39.9;51.4]
Educationel < high school	165	50.6	[44.6;56.6]
Missing data on educational level	11	3.7	[0.8;6.7]
Employed or in schooling	84	31.1	[25.1;37]
Neither employed nor in schooling	258	68.2	[62.1;74.2]
Missing data on employment status	1	0.7	[-0.6;2.1]
Not a proficient French speaker	227	64.4	[55.1;73.7]
Proficient French speaker	106	35.6	[26.3;44.9]
Income < 964 euros/month/UC	321	92.9	[83.6;102.3]
Income ≥ 964 euros/month/UC	10	3.1	[0.7;5.5]
Missing income data	12	4.0	[1.4;6.7]
Food insecure household	281	84.0	[78.9;89]
No food insecure household	48	11.3	[7.3;15.3]
Missing data on food insecurity	14	4.7	[1.3;8.2]
Welfare benefits	135	37.0	[31;43.1]
No welfare benefits	208	63.0	[56.9;69]
Number of moves since homeless (per year)		2.9	[2.4;3.4]
Number of contacts with family members (per month)		12.4	[9.5;15.3]
No negative life events in mother's life	118	35.6	[28.5;42.7]
Negative life events in mother's life	204	58.0	[50.4;65.6]
Missing data on negative life events	21	6.4	[3.1;9.6]
Mother without PTSD in the last 12 months	252	74.7	[69.5 ; 80]
Mother with PTSD in the last 12 months	68	18.5	[13.5 ; 23.5]

Missing data on maternal PTSD	23	6.8	[3.5 ; 10]
Mother not depressed in the laste 12 months	224	69.0	[63.6;74.5]
Mother depressed in the laste 12 months	80	22.6	[17.6;27.6]
Missing data on maternal depression	24	8.4	[4.7;12.1]
Mother at risk of suicide in her life	296	87.0	[82.6;91.4]
Mother not at risk of suicide in her life	47	13.0	[8.6;17.4]
No domestic violence in the last 1é months	214	61.3	[55.7;66.9]
Domestic violence in the last 12 months	59	18.5	[14;22.9]
Missing data on domestic violence	70	20.2	[15.1;25.4]
Mother in good physical health	289	88.2	[83.9;92.5]
Mother in poor physical health	38	11.1	[6.8;15.3]
Missing data on maternal physical health	1	0.8	[-0.6;2.2]

Table 4 – Emotional and behavioral difficulties (SDQ) of children growing up in homeless families' in the Paris region and their parents' (ENFAMS survey 2013, age 4-12 years, n=343)

		n	estimated prevalence	IC 95
Total difficulties	Within normal range	262	78.4	[73.3 ; 83.5]
	High level	78	20.8	[15.8 ; 25.8]
	Missing data	3	0.8	[-0.4 ; 2]
Emotional difficulties	Within normal range	228	71.4	[66.1 ; 76.8]
	High level	113	28.3	[23 ; 33.6]
	Missing data	2	0.2	[-0.1 ; 0.6]
Conduct problems	Within normal range	264	76.1	[69.3 ; 82.9]
	High level	79	23.9	[17.1 ; 30.7]
Symptoms of hyperactivity-inattention	Within normal range	276	82.1	[77.3 ; 86.8]
	High level	66	17.7	[13 ; 22.5]
	Missing data	1	0.2	[-0.1 ; 0.5]
Peer relationship problems	Within normal range	303	88.4	[83.9 ; 93]
	High level	37	10.7	[6.5 ; 14.9]
	Missing data	3	0.8	[-0.4 ; 2]

Table 5 – Characteristic associated with emotional and behavioral difficulties in children growing up in homeless families in the Paris region (ENFAMS survey 2013, n=320, univariate linear regression analysis)

	Weighted prevalence/mean	Univariate model			
		Coefficient	IC 95	p	p global
Child's younger than 6 years	35.4	ref			0.982
6 to 12 years old child	64.6	-0.02	[-1.95;1.9]	0.982	
Girls	50.6	ref			**0.043**
Boys	49.4	1.59	[0.06;3.12]	**0.043**	
Number of cohabising siblings		-0.83	[-1.49;-0.16]	**0.016**	**0.016**
Child born abroad	55.5	ref			**0.059**
Child born in France	45.5	1.67	[-0.05;3.39]	**0.059**	
Parent's age (per 10 years)		-0.82	[-1.87;0.22]	**0.126**	**0.126**
Parent born in North Africa	16.6	ref			**0.016**
Parent born in Sub-Saharan Africa	46.6	2.22	[-0.03;4.47]	**0.055**	
Parent born in Eastern Europe	21.6	0.37	[-1.99;2.73]	0.758	
Parent born in other countries	15.1	3.43	[0.91;5.94]	**0.009**	
Legal residence status in France	51.4	ref			0.442
Undocumented administrative status	37.9	-0.98	[-2.69;0.73]	0.262	
Ongoing Asylum procedure	10.7	-1.22	[-3.72;1.29]	0.343	
Two parent family	54.2	ref			0.276
Single parent family	45.8	-0.94	[-2.63;0.75]	0.276	
Food insecure household	84.2	ref			0.326
No food insecure household	11.9	-1.36	[-3.25;0.54]	**0.163**	
Missing data on food insecurity	3.9	-1.29	[-5.01;2.43]	0.499	
Number of moves since homeless (per year)		0.17	[-0.01;0.35]	**0.067**	**0.067**
Number of contacts with family members (per month)		0.08	[0.05;0.12]	**<0.001**	**<0.001**
No negative life events in mother's life	37.4	ref			**0.121**
Negative life events in mother's life	55.8	1.94	[0.09;3.78]	**0.042**	
Missing data on negative life events	6.7	0.99	[-1.52;3.49]	0.442	
Children without health problem that requires specific care	84.7	ref		**<0.001**	**<0.001**
Children with health problem that requires specific care	15.3	3.19	[1.61;4.77]		
Children without respiratory problem	66.7	ref			**0.001**
children with respiratory problem	33.0	1.69	[0.02;3.37]	**0.050**	
Missing data on children's respiratory problem	0.3	-0.78	[-1.79;0.22]	**0.127**	
No anemia, or light anemia	70.6	ref			0.759
Moderate or hight anemia	20.0	0.18	[-1.58;1.94]	0.839	
Missing data on children's anemia	9.4	-0.79	[-3.15;1.57]	0.512	
Thin or normal child's BMI	65.6	ref			**0.031**
Overweight or obese child	23.6	2.02	[-0.07;4.11]	**0.060**	
Missing BMI	10.8	-1.37	[-3.43;0.68]	**0.192**	
Bedtime before 10PM	62.4	ref			**0.043**
Bedtime after 10PM	25.5	2.18	[0.48;3.88]	**0.013**	
Missing bedtime data	12.1	0.85	[-2.34;4.04]	0.600	
Mother not depressed in the last 12 months	68.2	ref			**0.004**
Mother depressed in the last 12 months	23.0	3.28	[1.4;5.16]	**0.001**	
Missing data on maternal depression	8.7	1.21	[-1.27;3.7]	0.341	
Mother without PTSD in the last 12 months	74.3	ref			**0.077**
Mother with PTSD in the last 12 months	18.5	2.29	[0.31;4.28]	**0.026**	
Missing data on maternal PTSD	7.1	0.10	[-2.05;2.26]	0.925	

Mother at risk of suicide in her life	87.3	ref			**<0.001**
Mother not at risk of suicide in her life	12.7	5.79	[2.99;8.58]	**<0.001**	
No domestic violence in the last 12 months	58.2	ref			**0.177**
Domestic violence in the last 12 months	18.8	2.20	[-0.26;4.66]	**0.082**	
Missing data on domestic violence	22.9	0.89	[-0.92;2.7]	0.335	
Mother in good physical health	89.8	ref			**0.011**
Mother in poor physical health	10.2	3.57	[0.86;6.29]	**0.011**	
Child's like of the family's accommodation	69.3	ref			**<0.001**
Child's dyslike of the family's accommodation	24.6	4.89	[2.85;6.93]	**<0.001**	
Missing data on family's accommodation	6.0	2.05	[0.11;3.99]	**0.041**	
Child's inexperience of bullying	59.4	ref			**<0.001**
Child's experience of bullying	25.3	5.25	[3.21;7.29]	**<0.001**	
Missing data on experience of bullying	15.3	1.28	[-0.32;2.88]	**0.118**	

Table 6 – Characteristic associated with emotional and behavioral difficulties in children growing up in homeless families in the Paris region (ENFAMS survey 2013, n=320, multivariate linear regression analysis)

	Weighted prevalence/mean	Univariate model			
		Coefficient	IC 95	p	pglobal
Child's younger than 6 years	35.4	ref			0.056
6 to 12 years old child	64.6	4.31	[-0.06;8.69]	0.056	
Girls	50.6	ref			0.167
Boys	49.4	0.84	[-0.34;2.02]	0.167	
Number of cohabiting siblings		-0.32	[-0.88;0.24]	0.268	0.268
Child born abroad	55.5	ref			0.510
Child born in France	45.5	0.57	[-1.13;2.27]	0.510	
Parent's age (per 10 years)		-0.14	[-1.12;0.84]	0.780	0.780
Parent born in North Africa	16.6	ref			**0.020**
Parent born in Sub-Saharan Africa	46.6	1.74	[-0.14;3.62]	0.072	
Parent born in Eastern Europe	21.6	0.60	[-1.76;2.95]	0.622	
Parent born in other countries	15.1	3.22	[1.04;5.39]	**0.005**	
Legal residence status in France	51.4	ref			0.975
Undocumented administrative status	37.9	-0.15	[-1.6;1.3]	0.835	
Ongoing Asylum procedure	10.7	-0.16	[-2.32;1.99]	0.881	
Number of moves since homeless (per year)		0.22	[0.05;0.38]	**0.012**	**0.012**
Number of contacts with family members (per month)		0.03	[0;0.06]	0.090	0.090
Children without health problem that requires specific care	84.7	ref			**<0.001**
Children with health problem that requires specific care	15.3	3.49	[2;4.97]	**<0.001**	
Children without respiratiry problem	33.1	ref			0.095
Children with respiratory problem	66.9	1.05	[-0.17;2.28]	0.095	
Thin or normal child's BMI	65.6	ref			**0.007**
Overweight or obese child	23.6	2.14	[0.54;3.75]	**0.010**	
Missing BMI	10.8	-0.89	[-2.62;0.85]	0.319	
Bed time before 10PM	62.4	ref			**0.002**
Bed time after 10PM	25.5	2.82	[1.43;4.21]	**<0.001**	
Missing bed time data	12.1	1.82	[-0.57;4.21]	0.138	
Mother not depressed in the last 12 months	68.2	ref			0.393
Mother depressed in the last 12 months	23.0	-0.10	[-1.77;1.57]	0.907	
Missing data on maternal depression	8.7	2.30	[-1.03;5.63]	0.178	
Mother without ptsd in the last 12 months	74.3	ref			0.248
Mother with pstd in the last 12 months	18.5	1.12	[-0.62;2.86]	0.212	
Missing data on maternal ptsd	7.1	-1.92	[-5.68;1.85]	0.321	
Mother at risk of suicide in her life	87.3	ref			**<0.001**
Mother not at risk of suicide in her life	12.7	4.13	[1.98;6.28]	**<0.001**	
No domestic violence in the last 12 months	58.2	ref			0.115
Domestic violence in the last 12 months	18.8	0.67	[-0.9;2.23]	0.405	
Missing data on domestic violence	22.9	1.83	[0.03;3.64]	0.050	
Mother in good physical health	89.8	ref			0.100
Mother in poor physical health	10.2	1.60	[-0.29;3.5]	0.100	
Child's like of the family's accommodation	69.3	ref			**<0.001**
Child's dyslike of the family's accommodation	24.6	3.59	[1.78;5.41]	**<0.001**	
Missing data on family's accommodation	6.0	6.23	[2.31;10.15]	**0.002**	
Child's inexperience of bullying	59.4	ref			**0.002**
Child's experience of bullying	25.3	3.21	[1.29;5.12]	**0.001**	
Missing data on experience of bullying	15.3	-0.01	[-1.97;1.94]	0.990	