AN EXPLORATION OF THE MENTAL HEALTH IMPACT OF VIOLENCE ON FEMALE UNACCOMPANIED REFUGEE MINORS AND THE ASSOCIATED PSYCHOLOGICAL NEEDS: A MIXED METHODS STUDY OF THE ITALIAN CONTEXT

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Acronyms and abbreviations

IOM	International Organization for Migration
MSF	Medecins Sans Frontiers/Doctors Without Borders
NGOs	Not-Governmental Organizations
PTSD	Post-Traumatic Stress Disorder
UMs	Unaccompanied Minors
UNHCR	United Nation High Commissioner for Refugees
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization
WRC	Women's Refugee Commission

Definitions

Adolescent: a young person in the process of developing from a child into an adult or the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 (50).

Assault: the action or an act of forcing an unconsenting person to engage in sexual activity; a crime involving forced sexual contact or sexual contact that usually involves force upon a person without consent (50).

Child: any person below the age of 18, only from a legal point of view (50).

Child sexual abuse: the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society. Child sexual abuse is evidenced by this activity between a child and an adult or another child who by age or development is in a relationship of responsibility, trust or power, the activity being intended to gratify or satisfy the needs of the other person (50).

Child sexual exploitation: the situation where a child takes part in sexual activity in exchange for something from a third party, the perpetrator, or by the child her/himself (50).

Harassment: the act of annoying or worrying somebody by putting pressure on them or saying or doing unpleasant things to them. Particularly, sexual harassment is any form of unwanted verbal, non-verbal, or physical conduct of sexual nature with the purpose of effect of violating the dignity of a person, in particular when creating an intimidating, hostile, degrading, humiliating, of offensive environment (50).

Minor: any person under the age at which you legally become an adult (50).

Physical violence against children: it includes all corporal punishment and all other forms of torture, cruel, inhuman or degrading treatment or punishment as well as physical bullying and hazing by adults or by other children. 'Corporal' (or 'physical') punishment is defined as any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light. Most involves hitting ('smacking', 'slapping', 'spanking') children with the hand or with an implement – a whip, stick, belt, shoe, wooden spoon, etc. But it can also involve, for example, kicking, shaking or throwing children, scratching, pinching, biting, pulling hair or boxing ears, caning, forcing children to stay in uncomfortable positions, burning, scalding or forced ingestion (49).

Psychological violence against children: it is often described as psychological maltreatment, mental abuse, verbal abuse and emotional abuse or neglect. This can include: (a) All forms of persistent harmful interactions with a child; (b) Scaring, terrorizing and threatening; exploiting and corrupting; spurning and rejecting; isolating, ignoring and favoritism; (c) Denying emotional responsiveness; neglecting mental health, medical and educational needs; (d) Insults, name-calling, humiliation, belittling, ridiculing and hurting a child's feelings; (e) Exposure to domestic violence; (f) Placement in solitary confinement, isolation or humiliating or degrading conditions of detention; and (g) Psychological bullying and hazing by adults or other children, including via information and communication technologies (ICTs) such as mobile phones and the Internet (known as 'cyber-bullying') (49).

Rape of a child: the crime of forcing child to have sex against her or his will, and it often involved the use of physical force or violence (50).

Sexual and gender based violence: the term gender-based violence is used to distinguish common violence from violence that targets individuals or groups of individuals on the basis of their gender. Gender-based violence has been defined as violence that is directed at a person on the basis of gender or sex. It includes acts that inflict physical, mental or sexual harm or suffering, threat of such acts, coercion and other deprivations of liberty. UNHCR employs an inclusive conception of sexual and gender-based violence that recognizes that, although the majority of victims/survivors are women and children, boys and men are also targets of sexual and gender-based violence. (57)

Sexual violence against children: it comprises any sexual activities imposed by an adult on a child against which the child is entitled to protection by criminal law. This includes: (a) The inducement or coercion of a child to engage in any unlawful or psychologically harmful sexual activity; (b) The use of children in commercial sexual exploitation; (c) The use of children in audio or visual images of child sexual abuse; and (d) Child prostitution, sexual slavery, sexual exploitation in travel and tourism, trafficking for purposes of sexual exploitation (within and between countries), sale of children for sexual purposes and forced marriage. Sexual activities are also considered as abuse when committed against a child by another child if the offender is significantly older than the victim or uses power, threat or other means of pressure. Consensual sexual activities between children are not considered as sexual abuse if the children are older than the age limit defined by the State Party (49).

Survival sex: an exchange of sexual activities for basic needs, food, clothing, or shelter (9).

Trafficking: the recruitment, transportation, transfer, harboring or reception of persons, including the exchange or transfer of control over those persons, by means of the threat or use of force or other

forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation (50).

Unaccompanied minor: any person who is under the age of 18, unless, under the law applicable to the child, majority is, attained earlier and who is *"separated from both parents and is not being cared for by an adult who by law or custom has responsibility to do so"* (50).

Executive summary

The current European refugee crisis is characterized by an increasing number of women and unaccompanied minors who flee from war, human rights' violation and poverty, and undertake dangerous journeys. In 2017, Italy has become the first point of arrival to Europe, characterized by alarming numbers of unaccompanied minors, around 92% of all minors. Among them, refugee girls represent the *"invisible population"*.

Aim of this study was to assess demographic profile, risks faced during the journey, mental health outcomes and related psychosocial needs of female unaccompanied refugee minors who arrive in Italy.

The methodology chosen was a mixed method sequential triangulation design study: quantitative data have been collected through a systematic review of the scientific literature and combined with qualitative data collected through grey literature and open-answer questionnaire to stakeholders.

The results describe refugee girls who arrive in Italy as a small portion, 10-20% among all unaccompanied minors, aged 15-17 years, and coming from sub-Saharan African countries. The journey they undertake lasts on average a year, passing through the Sahara Desert, Libya, and finally the Central Mediterranean Sea. During the entire journey, they are exposed to life threatening conditions, physical and psychological abuse, and to a greater risk to become victim of sexual violence than boys. Due to the exposure to traumatic events, they are more likely to develop negative mental health outcomes and related psychosocial needs that demand to stakeholders to be ready to provide cultural-, gender- and age-appropriate services.

Background

Female unaccompanied refugee minors in crisis setting

Refugee adolescents can be considered an invisible population among forcibly displaced persons and as such, the phenomenon of more and more minors, among those girls, crossing into Europe and forced to face life threating conditions is particularly concerning. The description that WRC reported in 2009 about terrible situations that girls face during humanitarian crises – "without money or other resources, displaced women and girls attempting to flee may be compelled to exchange sex in return for safe passage, food, shelter and other resources" (1) – continues to be the sad reality to this day.

In 2011, WHO declared that *"crises impact women, girls, boys and men of all ages differently. Their needs and interests vary, as do their resources, capacities and coping strategies. Women and girls are disproportionately exposed to the effects of disasters. One woman in five is likely to experience sexual violence in humanitarian settings, girls are more likely to be pulled out of school and less likely to return than boys, and 60% of preventable maternal deaths take place in crisis setting"* (2). This picture of years ago is still valid to describe the current European refugee crisis, characterized by increasing numbers of women and unaccompanied or separated minors, among those refugee girls represent the "invisible population" that *"because of their powerlessness, […] are more vulnerable to forced marriage, sexual slavery and forms of gender-based violence, among other abuses"* (1).

It is recognized, in fact, that in humanitarian contexts minors, either unaccompanied or separated minors (minors separated from the adult family members who accompanied them), victims of trafficking, physical, sexual or psychological violence, gender-based violence and torture are groups of specific concerns (3). In particular, displaced girls are amongst the most vulnerable of forcibly displaced persons due to their age and gender (4).

Since the European refugee crisis began, the patterns of displaced people arriving to Europe have changed: in January 2016, for the first time, international authorities recognized a gender shift among refugee and asylum-seekers. According to UNHCR, in fact, in June 2015 men accounted for 73 per cent of refugees crossing into Europe, while trends of first months of 2016 showed a reduction to 45 per cent. At the same time, the number of women nearly doubled, increasing from 11 per cent, during summer 2015, to 21 per cent in January 2016 (5). One year later, in January 2017, Europe has been challenged by another issue: the increasing number of unaccompanied minors (6).

These demographic changes in figures call attention to the risk factors women and minors face during their journey to Europe (12): becoming victims of physical, sexual, psychological, and gender-based

violence, being trafficked, smuggled, exploited, abused, and living in life threatening conditions. Regardless of the route they use to enter into Europe, both come either through the Central or the Eastern Mediterranean route and the Balkan route (closed in March 2016), women and minors *"stuck in Greek detention center"* suffer from *"violence, unsanitary conditions, food shortages"* (7), whereas those who flee *"poverty and conflicts in Africa are being beaten, raped and starved in 'living hellholes' in Libya"* (8). Another shocking issue that has been reported by organizations is that minors detained in Greece not only live situations of physical and psychological violence, but also, they are forced to survival sex in exchange of basic needs, like food, clothing, or shelter (9). Also among those unaccompanied minors who use the Central Mediterranean route, three quarters report to have been victims of violence, harassment, and assault. Most of them declare to have been also verbal or psychologically abused, almost the 50% beaten or abused, with higher prevalence of sexual violence or abuse among girls; lack of water and food, unsanitary conditions, and overcrowded spaces have been also reported (10).

It is known from WHO and UN agency reports that women and minors witnessing and experiencing traumatic experiences are more likely to develop negative mental health outcomes (11) and psychological distress (10). Even though little is known about mental health data disaggregated by gender and age of forcibly displaced people, it has been estimated that the prevalence of mental disorders is higher for women and children (particularly unaccompanied minors), and for those who have been subject to trauma and violence, and who lack social support. It is also known that specific psychosocial needs that these vulnerable group have are often unmet (11). The most common diagnoses of mental health disorders are: psychotic disorders, mood disorders, anxiety, PTSD, stress-related and somatization disorders. Among those, PTSD combined with depression is the most common diagnosis and its prevalence is higher in those children and adolescents who have been exposed to traumatic events. (12). Besides psychiatric problems to be cured, there are also associated psychosocial problems that are the main barriers that need to be overcome: lack of knowledge of local language, which cause communication problems and misunderstanding and social exclusion, lack of knowledge of right to receive health care and psychological support in host countries, cultural barriers in understanding what mental health and mental disorders are and cultural expectation towards health care services and professional, and lack of trust in services and authorities of host countries (12).

The Italian context

The picture described above reflects the current Italian refugee crisis. Looking at the IOM data for the period January-April 2017, it is reported that 46,015 persons arrived to Europe, among those 45,056 by sea and 959 by land (13). 37,248 persons arrived in Italy by sea, 33% more than last year

at the same period, and accounting for 80% of total arrivals. Arrivals to Greece, accounted for 12% of total arrivals, show a decrease of 96% compared to the same period last year.

Data about refugee-source countries among arrivals show that Nigeria is the first nationality (14% of the total), followed by Bangladesh (12%), Guinea (11%), Ivory Coast (11%), The Gambia (8%), and Senegal (7%). Looking at data stratified by age and gender and nationalities, adult males accounted for 75% of the total, followed by unaccompanied minors (14%), and adult women (9.5%). Adult men mostly come from Pakistan, Morocco, Senegal, and Bangladesh. The Gambia, Guinea, Ivory Coast and Bangladesh are the main nationalities for unaccompanied minors and Nigeria, Eritrea, and Ivory Coast for adult women (13).

The most comprehensive data about refugee and migrant minors arrived in Italy date back to 2016. 100,264 minors arrived in Europe, of whom 34% (33,806) were unaccompanied or separated children. Children who arrived to Italy were almost 30,000, coming from Northern, Eastern and Western African countries through the Central Mediterranean route, whereas more than 60,000 arrived in Greece via the Eastern Mediterranean or Balkan route. Greece is the country where children account for the biggest part (37%) among refugees, and 92% of them are accompanied children, whereas Italy occupies the third place (after Bulgaria) in terms of numbers (16%), but 92% of minors are unaccompanied or separated. It is notable that both country of origin and country of arrival differ a lot according to the status of the children: accompanied minors who arrive to Greece mostly come from the Syrian Arab Republic, Afghanistan and Iraq, whereas the majority of whom that are unaccompanied or separated come from all over African continent (Eritrea, The Gambia, Nigeria, Egypt, Guinea, Ivory Coast) and arrive in Italy. Stratifying by sex and age, in all arrival countries the proportion of boys compared to girls is higher: 3 boys every 2 girls, whereas among unaccompanied or separated children 94% are boys. Relevant differences are also those related to age: 52% of accompanied children who arrive in Greece are between 5 and 14 years. By contrast, the majority of unaccompanied or separated minors who arrive in Italy are between 15 and 17 years (14).

Regardless of the country where they come from and the reason why they leave, all minors arriving in Italy and using the Central Mediterranean Route report having witnessed or experienced violence and abuse, and nearly 75% of report risks related to human trafficking indicators (15). In fact*, "there is strong evidence that the migration crisis has been exploited by criminal human trafficking networks to target the most vulnerable, in particular women and children […]. Particularly migrants from sub-Saharan Africa, using the "pay-as-you-go" system […] to pay the smugglers […] are more likely to become stranded and exposed to abuse […] both girls and boys are sexually assaulted and forced into prostitution while in Libya"* (15).

Justification and research aim

The newness in trends of refugee and migrant arrivals in Europe is the reason why this research study has been carried out. Particularly: increasing number of unaccompanied minors arriving in Italy, *"feminization"* of migration flows, exposure to traumatic events (physical, sexual, psychological violence, SGBV, human trafficking, etc.) due to unaccompanied refugee minor's vulnerability, being either an unaccompanied minor or a girl are risk factors to develop mental health disorders, and unaccompanied refugee minors as specific psychological needs-holders.

Therefore, given figures and issues related to the recent phenomenon of increasing number of unaccompanied minors crossing into Europe who are exposed to violence, the main aim of the study is to extend the knowledge and understanding of the effects of physical, sexual, and psychosocial violence on a victim. Furthermore, the purpose is to determine how these circumstances affect mental health of female unaccompanied minors.

In order to ultimately achieve a variable answer to this research question, other secondary questions need to be answered:

• What is the demographic profile of female unaccompanied refugee minors who arrive in Italy?

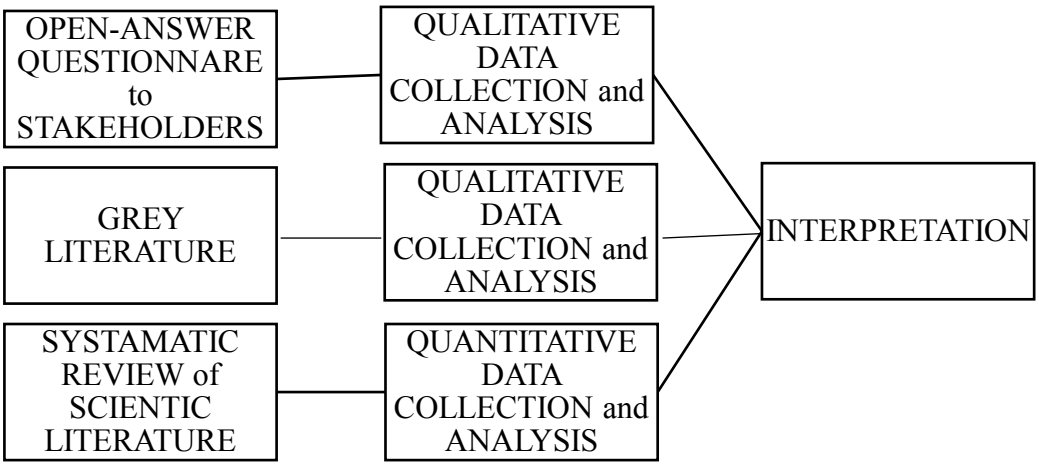
• What are the most prevalent risks these group face before, during and after the journey, that mostly have an impact on them?

• On the basis of all the previous considerations, what are the primary and most urgent psychosocial needs?

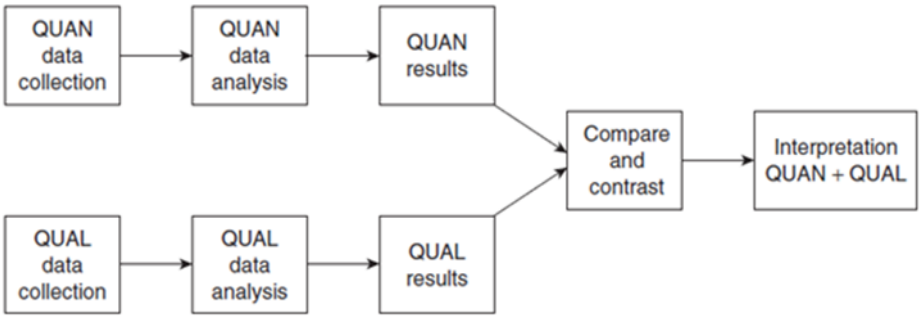
Methodology

Research design

Given the complexity and newness of the phenomenon, the methodology chosen for this study has been mixed methods sequential triangulation design approach. The reason why mixed methods research has been chosen is because *"by mixing datasets, the researcher provides a better understanding of the problem than if either dataset had been used alone"* (16). It has been a single-phase study, with data triangulation: different data sources (fig.1) have been collected and analyzed separately and later the results have been converged during the interpretation phase (fig.2) (16). The rationale of this choice has been given by the fact that thought triangulation the validity of the study increases (16).



(Fig.1 Data source triangulation)



(Fig.2 Mixed method sequential triangulation design: convergence model, Creswell 2006)

Material and methods

Systematic review of scientific literature

Quantitative data have been collected through a systematic review of scientific literature. Databases used to gather reviewed papers have been PubMed, PsycINFO and Cochrane Library. Key words used to research into the databases have been: unaccompanied refugee minors/children/adolescents, female unaccompanied refugee minors/children/adolescents, Europe, Italy, mental health, psychological distress, psychosocial needs, physical violence, sexual violence, psychological violence, trafficking.

Inclusion criteria: papers published between 2012-2017 have been selected. The reason why these temporal limits have been chosen is because the beginning of the Syrian war has been considered the starting point of the massive forcibly displacement of people towards Europe. The articles selected needed to be available either as abstract or as full text in English. Target population of the articles needed to be unaccompanied minors/children/adolescents. The choice to distinguish among minors, children and adolescents have been done because *"minors"* is a comprehensive legal definition, but children and adolescents refer to different population with specific age and mental health consequences. No limitations in terms of refugee-source countries have been applied, but only papers which had European countries as refugee-host countries have been selected. The choice to not limit research of literature only about Italian situation is due on one hand to lack of literature focused only on the Italian context and on the other hand in order to get a comprehensive idea of the phenomenon at European level. Title and abstract needed to mention target population, mental health related problems and psychosocial needs.

Exclusion criteria: articles whose abstract or text was not available in English or that have been published before 2012 have not been included. Articles without reference to study target population and not related to European refugee crisis have not been selected as well as papers not focused on mental health disorders and psychological distress' causes and consequences.

Qualitative data

Two different types of qualitative data have been collected and analyzed: report and publications by both international and national, either governmental or not-governmental organizations, and stakeholders' opinion.

1. Reports and publications have been collected according to the following inclusion criteria: documents which have been selected needed to published in English or Italian, between 2012 and

2017, by both international and national, either governmental or not-governmental organizations. The agencies to be included needed to be directly involved with forcibly displaced people, especially women or minors, in Europe or Italy, mental health and psychological issues. Reports and publications that have been excluded have been those published only by Italian agencies because it has been assumed they would offer a too specific picture of the phenomenon. Reports published before 2012 and without references to minors, mental health, psychological distress and psychosocial needs have not been included.

2. Open-answer questionnaire (Annex 1). have been provided to Italian stakeholders who mostly work with unaccompanied minors or in the area of mental health and refugees. Participants have been recruited using haphazard and snowball sampling methods. For ethical considerations, it was decided to not have minors participate in the study. Annex 2 shows the list of stakeholders.

Research limitations

The limitations of the study have been:

• Time: considering the time available to carry out the study (January – June), the topic has been approached in a comprehensive but non-exhaustively way. In spite of this limitation, it is hoped that the research will provide a foundation for further research.

• Data collection: quantitative and qualitative data have been researched in two different phases. Because of time's constraint, there has not been time enough to go further with researches after the phase of collection and analysis of qualitative data. In particular, the original to conduct in depth interviews has been chosen to abandoned and open-answer questionnaire have been provided to those stakeholders willing to collaborate with the study.

• Geographic area: considering that focus of the study was Italy, what has been gathered is only a partial comprehension of the phenomenon that could be different according to stakeholders involved.

• Stakeholders: stakeholders selected represent a purposive sample size, not a representative one and this is due, on one hand, to different contexts where refugee girls are welcomed, different stakeholders they are in contact with, and on the other hand, because only 15 out 36 stakeholders recruited answered the questionnaire.

• Lack of research: female unaccompanied refugee minors represent a small new population of displaced people in Italy as well as in Europe. This is the reason why little is known about them, their mental health outcomes and psychosocial needs. In addition, those girls who are trafficked are not easily accessible to researchers.

Framework of analysis

All data have been analyzed according to the framework that has been created for the purpose (Annex 3).

The framework has been realized in order to analyze different issues linked to what is known about current situation of female unaccompanied refugee minors crossing into Europe. Firstly, in order to understand the demographic profile of female unaccompanied minors arriving to Europe/Italy age, gender, country of origin, and the reason why they fled were assessed Another relevant aspect that was studied was knowing their mental health status before the journey. Secondly, the journey itself was analyzed: trajectory, i.e. route, how they travel and for how long. Thirdly, and strictly related to the journey, risk factors they are exposed needed to be assessed. Journey and risk factors have been divided into three phases: pre-journey, peri/during journey, and post-journey. Particularly, and fourthly, since it is known that vulnerable populations such as minors, both accompanied and not, are often exposed to different types of traumatic experiences and violence, whether and how physical, sexual and psychological violence played a role in each of the phase of the journey was examined. Fifthly, since the exposure to traumatic events has been assessed to be associated with mental health negative outcomes, it has been analyzed what are the most common mental health problems according to age and gender, and also whether and how they are understood and accepted by themselves according to their cultural understanding. The last aspect that has been assessed was related to what are the psychosocial needs female unaccompanied minors develop according to age, gender, mental health outcomes and cultural background.

Results

The results will be reported explaining how they have been found and by topic according to the framework of analysis.

As it has been declared in material and methods, the systematic review of the scientific literature has been carried out using three different databases: PubMed, PsycINFO, and Cochrane Library.

PubMed research has been done using key words organized in different combinations. Specifically, the research has been carried out in three steps: in the first one, key words for target population was combined with those related to geographical area, in the second one target population key words have been combined with those related to risk factors, and in the last one key words of target population have been combined with those related to mental health and psychological problems. 204 results have been found, 166 have been selected as relevant, 23 have been used. Annex 4 shows the results.

In addition to PubMed results, also reports from PsycINFO have been found. PsycINFO organizes documents by topic, title or date. It has been chosen to research them by topic, and those selected were: children, human rights, immigration, post-traumatic stress disorder, sexual abuse, teens, trauma, and violence. 57 reports have been found, 7 have been selected as relevant, 2 have been used (inclusion/exclusion criteria in material and methods). Annex 5 shows the results.

Then, also Cochrane Library has been consulted. Only literature reviews have been considered for the research. This database as well as PsycINFO organizes papers by topic. Those selected have been: child health and mental health. 97 reviews have been found, 15 have been selected as relevant, 1 has been used (inclusion/exclusion criteria in material and methods). Annex 6 show the results.

Papers' collection, selection and analysis are reported in Annex 7.

The agencies selected to collect grey literature, according to inclusion/exclusion criteria declared, have been: MSF, Save the Children, UNHCR, UNICEF, UNWOMEN, WHO, WRC.

As reported in the paragraph about limitations, 15 stakeholders answered the questionnaire.

After collection and analysis of data from different sources, they have been merged in order to find comparisons or contrasts and increase the validity of the study.

Demographic profile

The demographic profile of female unaccompanied refugee minors who arrive in Italy is clearly depicted by all the sources. They are a small group, accounting for no more than 10-20% of total

unaccompanied minors This imbalanced proportion is common all over Europe: in fact, also those studies not carried out in Italy report the same percentage (18, 20, 21, 29, 30, 35, 37, s5, s6, s10, s12, s15). They mostly come from sub-Saharan African countries and according to what has been reported by stakeholders, almost 100% of refugee girls are from Nigeria (s2, s3, s5, s6, s10, s11, s12, s13, s15). Countries of origin differ for girls and boys. Refugee boys, in fact, come from either sub-Saharan African country, amongst those The Gambia and Eritrea are the two more reported, or Middle-Eastern and Asian countries, such as Syria, Afghanistan, and Pakistan, followed by Iraq, Bangladesh, and Sri Lanka (21, 37, 46, 47, 48, 52, 55, s1, s5, s7, s8, s12, s15). Regarding the age, instead, refugee girls and boys are mostly adolescent, with an average of age of 15-17 years. (18, 20, 27, 36, 46, 47, 48, 52, 55, s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s13, s14, s15). Both scientific and grey literature agree about the age of UMs, but stakeholders highlight a relevant aspect. At the arrival, in fact, lots of them declared to be under 18, modifying the real data: at least 50% of those who declared to be under 18 are not, meaning that less than 50% is comparable to the estimated 92% (s10, s12, s15). Another issue underlined by stakeholders and mostly related to refugee girls is that they often declare to be over 18, while they are not (s10, s12, s15). The reasons why UMs, in general, leave can be classified into two main groups: war and ethnical or political conflicts, especially for those who fled from Middle-Eastern countries, whereas for African UM's, both males and females, the main reason is poverty, usually related to human-rights' violation (18, 48, 55). The definition "unaccompanied minors" is comprehensive of both those minors who leave their home alone and those who are separated by family during the journey (25, 47, 48). A new trend among UMs is to leave in small group of friends, as reported by stakeholders (s10, s12). It is difficult to establish the real reasons why they left because, as reported by stakeholders, the story they report when they arrive in Italy is basically the same for all of them (s10, s12). It is also hard to establish their epidemiological profile, especially in terms of mental health, before the journey: stakeholders agree reporting that it is impossible to assess, whereas scientific and grey literature do not report any data about it (s5, s15).

Journey

Grey literature and stakeholders agree about the journey refugee girls undertake before reaching Italy, whereas only one scientific paper mentions it (21). The routes to enter Europe, in general, are two: The Central and the Eastern Mediterranean route (21, 46, 48). The Eastern Mediterranean route is used as an alternative to the Balkan route, after it has been closed in March 2016, by those who come from the Middle Eastern region and Asian countries (s8). The Central Mediterranean route, instead, is used by those who arrive in Italy, passing through the Sahara Desert and Libya. More details are reported only by stakeholders. All refugees who come from sub-Saharan African countries travel on

average a year. Their journey starts in their home country, passing then through other countries and The Desert for around 5-6 months, until reaching Libya. Before reaching Libya, they pass through the Sahara Desert both walking and on board of overcrowded pick-ups, following different routes, decided by smugglers that they meet along all the route. When they arrive in Libya, they are detained there and forced to hard work for variable time, usually 5-6 months, depending on when and how much they can pay the trip to Europe. When they can finally pay, it is not certain whether they will leave soon or not: everything is decided by smugglers. At the time of leaving, they cannot refuse, and are embarked and squished on overcrowded and unsafe boats, organized in three different groups (first, second, and third "class"), according to how much they paid (the same system that is used during the journey on the pick-ups through the desert). Crossing the sea from Libya to Italy lasts for from a couple of hours to a couple of day. In the last year boats set out regardless of weather conditions, while before they were used to travel only during summer, with better and easier sea conditions but, in general, summer remains the most popular season to leave (s4, s5, s6, s8, s9, s10, s11, s12, s15).

Risks during the journey

Throughout their entire journey, UMs are exposed to traumatic experiences because of their condition of vulnerability (25, 31, 32). Before leaving their countries, they already deal with stressful life events, that usually are war, political and ethnical conflicts, death or murder of friends and family members, physical and psychological violence perpetrated at home or at school by parents, relatives or teachers (18, 20, 21, 29, 30). As reported by stakeholders, it is common to hear that they fled because of maltreatment of girl's father's second-wife's father or girl's mother's second-husband's mother (s8, s12, s15). It is universally recognized that the most traumatic phase of the journey is during the journey itself, especially the Libyan experience. In the phase "during-journey" in particular, they are exposed to life-threatening conditions, such as lack of water, food, shelter (18, 20, 21, 23, 34, 42, 46, 47, 48, 50, 51, 56) and from what has been reported by stakeholders when they cross the Sahara Desert they travel on overcrowded pick-up trucks, where they cannot move, drink or eat, and if they have to urinate or defecate they have to do it in the place they are occupying and in the same position, because if they fall down, the pick-up does not stop and they would die in the middle of the desert (s1, s8, s10, s12, s15). In addition, both male and female unaccompanied minors are exposed to a greater risk of maltreatment, exploitation and abuse (18, 20, 21, 23, 34, 42, 46, 47, 48, 50, 51). In particular, it has to be highlighted there are different risks depending on gender: boys more often are victims of physical maltreatment and torture, whereas girls are a greater risk to become victims of sexual exploitation, particularly the so called "survival sex", sexual abuse and trafficking

(19, 20, 21, 32, 44, 45, 50, 51, 52, 53, 55, s13). It has been also reported by stakeholders that according to what some girls testified some of them are treated with hormones in order to avoid pregnancy or forced to unsafe abortion (s5, s4, s13). In Libya, they are detained in overcrowded prisons, where they live with suboptimal hygiene and sanitation conditions, poor nutrition and higher exposure to infectious diseases (18, 20, 21, 23, 34, 42, 46, 47, 49, 50, 51, s6, s8, s10, s12, s15). As reported by UMs in Libyan prisons they witnessed friend's punishment or death, they were forced to live with corpses, and they performed unethical actions in order to survive, like stealing water or food from someone else who was close to death (s10, s12, s15). Psychological violence has been recognized as a continuum during the entire journey: separation or friends' and family members' maltreatment, torture, murder or death before or during the journey; feeling or fear and unsafety because their exposure to violence, and especially during the detention in Libya, UMs report they got used to live like *"robots without a soul"*, repeating every day the same actions, following rules and not doing anything different from the rest of the group in order to not be noticed and punished (18, s19, s12, s13, s15). Because of this feeling of unsafety and uncertainty, they were accustomed to sleep with their few things under their head in order to get ready to immediately leave (s12). The continuous psychological violence was also worsened by the fact that smugglers would call UMs' families to ask for money beating and torturing them so that families could hear their screams (s10, s12, s15). Stakeholders report that at the moment of leaving Libya, UMs are scared by smuggler shooting and beating them (s10). Crossing the Mediterranean Sea is also a psychologically traumatic experience: they travel on board of unsafe and overcrowded boats where they travel divided in classes according to how much they paid, without water or food, and where there is no space to move to urinate and defecate. It is common they report they witness friend's death during shipwreck (s10, s12, s15). When they are rescued by Italian army, local or international NGOs, as reported by stakeholders, they usually think that they are back in Libya because of the skin color of rescuer, and which is another type of psychological stress they pass through, the first of several other in the hosting countries (s10, s15). Scientific and grey literature and stakeholders agree that the post-journey phase is the one fullest of psychological traumatic events: they do not know where they are and do not understand the local language, at the beginning they live in overcrowded housing that lack of gender-, age-, and culture-appropriate basic services (18, 20, 21, 29, 40, 51, s12). After the initial phase, when they are resettled in second reception housing, they continue feel scared and unsafe because of the uncertain outcome of asylum-seeking process, the uncertain future, the lack of social support, the process of resettlement itself (18, 20, 21, 29, 40, 51, 56, s10, s12, s15). As it has been reported by stakeholders, when they arrive in Italy, if they can contact their families in home countries, they are pressured to send money and do not believe UMs when they say that before getting a job, they need documents. UMs report

also that their friends do not believe them when they tell what they lived through during the journey, in particular in Libya (s10, s12, s14).

Mental health outcomes

As stated before, it is not easy to assess whether UMs suffer from mental disorders before the journey. On the contrary, it is clearly recognized that after the journey they suffer from mental health problems due to traumatic experiences they pass through (18, 20, 29, 31, 33, 37, 38, 56). The most common psychiatric diagnoses among UMs are: PTSD, depression, anxiety, adjustment disorder, eating disorders (18, 19, 20, 21, 28, 30, 32, 33, 38, 39, 41, 42, 43, 44, 56, s2, s3, s5, s7, s12). Signs and symptoms of these negative mental health outcomes are: nightmares, sleep disturbance, insomnia, irritability, aggressiveness, isolation and socialization problems, low self-esteem, sadness and loss of interest in daily life activities, flashback, dissociation, learning difficulties, somatization with muscular pain, headache, and gastrointestinal problems (23, 30, 39, 40, 41, 42, 45, 56, s1, s2, s3, s6, s7, s9). Scientific and grey literature agree recognizing female gender as risk factor to develop negative mental health outcomes, especially PTSD (19, 29, 32), while according to stakeholders, girls and boys have the same risk to develop psychological distress (s5, s10, s15). There are some other aspects that are still debating: association between frequency and severity of exposure and negative mental health outcomes and resettlement and increase or decrease of negative mental health outcomes. Regarding the association between frequency and severity of exposure and negative mental health outcomes, in fact, scientific and grey literature recognizes this association as risk factor (19, 20, 32, 38, 49), whereas stakeholders do not (s10, s14, s15). About time from the resettlement and associated mental health outcomes, it is still debating if mental problems tend to increase or decreased after a year of resettlement (32).

In addition, it should be highlighted that in terms of negative health outcomes, UMs do not present only higher rates of mental health problems, but they are also more vulnerable to infectious diseases, such as tuberculosis, malaria, schistosomiasis, HIV, respiratory problems (24, 29, 33, 34) iron deficiency (28, 29), dental problems (28, 29, 34), diarrheal problems (33, 35), and reproductive and gynecological problems (33, 42). Low burden of non-communicable diseases, mostly metabolic diseases (29). This picture can be explained by background where UMs come from as well as by life-threatening conditions during the journey and by hard living condition in detention center (12). In particular, among refugee girls who have been victims of sexual violence, there are higher risk of STIs and early and unwanted pregnancy (49, 52, s5, s6).

Psychosocial needs

Due to traumatic experiences, female unaccompanied refugee minors pass through and the negative mental health outcomes they develop, when they arrive in Italy they need to be provided by specific services. First of all, at the arrival, they need have to be identified and offered gender- and age-adequate services, such as health care and psychological services (23, 24, 25, 41, 44, 45, s1, s2, s3). They also need to be relocated in adequate short-term or long-term reception facilities (46, 52, s4, s9, s10, s12). Secondly, they need to receive psychological first aid, meaning correct information through cultural mediators and trauma-sensitive trained professionals about the place where they are, asylum-seeking process and right and services they can benefit from (22, 23, 24, 41, s1, s10). Thirdly, they need to receive early health care services and psychiatric and psychological support, access to trauma- and culture-sensitive, interpreter-aided psychotherapy, and age- and gender-specific health care services (22, 23, 24, 41, 46, 54, s2, s3). Particularly, early detection of psychiatric disorders could prevent chronification as well as early identification of communicable and non-communicable burden of diseases, particularly related to malnutrition, dental problems, infectious diseases, sexual and reproductive health issues, and mental health problems (24, 29, 33, s5, s6, s14). This means that evidence-based tools to assess UMs mental health status and psychosocial distress need to be validated in terms of cultural appropriateness, efficiency, and affordability (26). In particular, refugee girls need to receive special attention in terms of sexual and reproductive health (s5, s6). Fourthly, educational and recreational services need to be provided and facilitated in order to facilitate social inclusion through school network. Social workers in collaboration with cultural mediators need to mediate all these processes (23, 25, 31, 41, 51, 53, s2, s3), and in addition, they need to be involved in educational process that could help them to easily find a job (s7, s10, s12, s13, s14). Specifically, the role of social support has been shown to be beneficial to alleviate and avoid mental health disorders, provided either by the contact with UMs families left abroad or peer networks inside host country (31). Since UMs are more vulnerable because of the lack of parental and friendly support, they need to be offered trustful and caring relationships (31, 32, 41, s1, s2, s3, s8). In addition to this, they need to be involved in daily life activities in order to learn a new language and establish a rhythm of ordinary life (32, 37, 40, s1, s4, s9, s10). Sixthly, professionals who works with them need to be culturally appropriated trained (20, s2, s3, s4, s9, s10, s15).

Discussion

It is complex to clearly understand who are female unaccompanied refugee minors who arrive in Italy, describing risks they pass through during their journey, identifying mental health outcomes and related psychosocial needs. As noted in methodology, the choice to conduct mixed methods research has been suggested by the complexity of the issue itself as a way to gather a more comprehensive understanding of the phenomenon and increase the validity of the study through triangulation of data source. Several issues have been found and it has been possible to assess their relevance due to the fact they were present in all data sources.

First of all, since the phenomenon of increasing number of unaccompanied minors is recent inside the Italian context and among these refugee girls represent a small portion, it has to be said that there is a widespread lack of either scientific and grey literature about the topic, due in part to imprecise data about UMs who arrive in Italy and underreported information about girls who are victims of human trafficking (32, 56). Those who may know the most are the stakeholders who everyday work with them. Mixing data from scientific and grey literature together with questionnaire's answers from stakeholders has been a way to gain a clearer picture of the topic. In particular, it has to be highlighted that results from different data sources are similar, do not contradict each other and each of them is focused mainly on one aspect: scientific literature, for instance, strengthens more those aspects related to psychiatric diagnosis with related signs and symptoms, whereas grey literature is more focused on psychosocial needs, and finally stakeholders' answers enrich with details the information already gained, providing a critical point of view and strengthening the point that each refugee girl's experience cannot be generalized. Regarding this, some information on refugee girls have been gathered from both scientific and grey literature related to different European context, as it has been declared, but it is necessary to emphasize that it may not be appropriate to compare refugee girls' situation from different settings. It is legitimate gathering information about refugee girls currently arriving in Europe, but the context where they come from, the reasons why they left their countries, risks they faced during the journey, living conditions in host countries and related psychological consequence and psychosocial needs are different. It is clear that all of them pass through dramatic experiences, but it is important to not generalize what can be known, because every single girl has her own story, with individual past experiences, current specific needs and future thought and dreams.

Firstly, about demographic profile of UMs who arrive in Italy, scientific literature and grey literature and stakeholders' opinion agree recognizing that boys account for almost the total of arrivals. This trend justifies the definition *"invisible population"* (2) for refugee girls, due to small numbers that make stakeholders pay less attention to them. Small number of female unaccompanied refugee minors

could be explained by either a gender imbalance, because as *"studies show […] boys usually outnumber girls possibly due to the fact that in many cultures boys are more likely to be perceived as stronger and with a better chance to succeed in fleeing than girls"* (31), or because girls claim to be 18 years or older even though they are not. This is critical issue, consequence of being victim of trafficking: if a girl declares that she is under 18, she would receive special protection and would be involved in projects dedicated to minors, meaning that she would have to exit the system of trafficking in which she is involved, with the consequence of losing the money they could otherwise send to her family at home, and she may be called upon to denounce her traffickers, which could put her or her family at risk (59, s10, s15). Another barrier to really know the number of refugee girls is that often figures about unaccompanied minors are not stratified by gender and age, but they are considered as a single group.

Gender and age are just two of the main issues related to unaccompanied minors in general. With reference to the age, it is important to highlight that 'minors' is just a legal definition to describe *"a person who is under the age at which you legally become an adult […] which could be attained before (or after) the age of 18 depending on the legislation of each country"* (48). The word *"minors"* is comprehensive of both *"child"* and *"adolescent"*, but a child is "any person under the age of 18 years" (50), whereas an adolescent is *"the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19"* (50). From what has been found from all the sources, the average of age of UMs when they arrive in Italy is 15-17, so they could be defined adolescents. The assessment of age is a controversial issue: several medical tests can be used to assess age, such as physical examination and measurement of anthropometric parameters together with externally visible sexual maturity, X-ray of hand and left wrist, dental examination (27, 33, 58). The issue of the assessment of the age of supposed UMs is a crucial because being recognized as minor or not gives them the possibility to receive special protection according to the Italian law (3, 58, s8, s12, s15). According to stakeholders' opinion 50% of boys and girls who arrive to Italy and declare to be under the age of 18 are not, but they do this in order to benefit from special protection (s10, s12). The assessment of age is a controversial issue because of diagnostic precision, safety and best interest of the person (27, 60, s5, s8). From a diagnostic perspective, in fact, none of the tests are completely accurate. It is known from the literature that assessing the age of a person between 15 and 20 is particularly difficult because of the potential errors due to the fact that in this timeframe body development is almost completed and no real differences can be noticed and the margin of error is around +/– 2 years (60, s10, s15). The problem with UMs and their age assessment is that they are all between 15 and 17 years and a margin of error of two years changes the legal status they will receive (60). In addition, this test in not totally precise because the references used are related to Caucasian

phenotype and so not applicable to other ethnicities. From a safety point of view, age assessment with X-ray examination is controversial even because this diagnostic tool has been declared unethical because of *"the danger of ionizing radiation to medical exposure"* (27, 60, s6, s10). Lastly, in the best interest of the person, age assessment is controversial because on one hand diagnostic inaccuracy determines legal status of the person that implies legal consequences. Furthermore, the invasiveness of age assessment may be retraumatizing for victims of sexual abuse (s6, s10, s15).

In addition, there are psychological implications related to age assessment. As has been highlighted, the majority of UMs are adolescents. Adolescence is, by default, a transition time characterized by *"important physical, emotional and cognitive changes. It is a time when persons become increasingly aware of themselves as social being"* (56). In contexts of conflicts, human rights violation and life-threatening conditions, this critical transition from a child to an adult, which implies *"establishing an identity"* at individual level as much as at social level, is not fulfilled, because of disruption of normal social structures, such as family and friends, and can end up with psychosocial consequences (19).

The vulnerability of this time period increases and worsens due to the fact that adolescents are not only in a crucial phase of their life, but also because they are alone (19) and, in fact, unaccompanied minors are amongst the most vulnerable groups (25, 31, 32). Identity, emotional, and psychological development, being alone, and female gender are all risk factors that increases refugee minors' vulnerability.

Girls in particular are known to be at higher risk of vulnerability than boys and also to be more likely to develop negative mental health outcomes (19, 29, 32).

As was noted in the justification, a major reason why this study was carried out is the newness of the phenomenon, meaning that little is known about female unaccompanied refugee minors arriving in Italy, where they come from, what they suffer from during the journey, and what mental and psychological consequences and needs they develop.

All refugee girls who arrive in Italy come from sub-Saharan African countries: if we consider them as unaccompanied minors, data report the majority of them come from The Gambia, while if we classify them into the group of women, the first nationality is Nigerian (14). As it has said before, it is difficult to assess their age, because either diagnostic tools are not completely accurate or minors declare to be adults or the other way around according to what they want to benefit from. Stakeholders confirm that almost all female unaccompanied refugee minors arriving in Italy come from Nigeria, whereas boys from The Gambia (13, 14, s5, s10, s15). They arrive by the Central Mediterranean route

and the journey from their mother country to Italian coasts lasts an average one year (9, 15, 21, 46). After leaving Nigeria, usually the trajectory is crossing into Niger, then Libya (55, s8)

The reason why they leave their home countries is usually related to the fact the they flee from contexts of extreme poverty and human rights' violation with the dream of reaching Europe, making money and helping their families. There is an interesting point which is worth highlighting: families and friends of UMs who arrive in Italy do not believe to the stories of UMs about the fact that the process to get documents and job is long and slow. Therefore, the easiest way they have to make money and help them is getting involved in illegal working systems. This aspect has been also underlined by stakeholders as one of the main type of psychological pressure experienced by unaccompanied minor girls: families and friends in the mother country do not believe that before getting a job and making money in order to help their families later, they have to pass through a long and complex bureaucratic process they cannot work until they receive legal documents and are recognized as asylum-seekers. This is one of the reasons why refugee girls often become victims of trafficking, especially those who flee from Nigeria: speeding up the way to make money (42, 54, 59, s10, s12). It is also common that they are involved in the trafficking when they still are in their countries of origin and they are offered passage to Italy where they could find employment and in this case their traffickers are people close to the family or the family itself. Girls during the journey are exposed to several risk factors, from life-threatening conditions: walking through the Sahara Desert without water and food, being victim of violence, such as harassment, exploitation, abuse, rape (18, 19 20, 21, 23, 32, 34, 42, 44, 45, 46, 47, 48, 50, 51, 53, 55, s13).

Unaccompanied refugee girls are more likely to become victims of sexual violence than boys and more at risk to be engaged in survival sex during all the journey (10, 19, 20, 21, 32, 44, 45, 49, 50, 51, 52, 53, 55, s13). The most difficult time they have and are more exposed to risk factors is the detention in Libya (10, 54, s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s13, s14, s15). All forcibly displaced persons who flee from sub-Saharan Africa pass through Libya before arriving to Italy and everyone compares Libya to hell (10, s7, s14). Once they arrive in Libya, in fact, they are sold by smugglers in order to make money and pay back the debt of the journey until there (s10). They are not only sold and forced to work, but they also live in inhumane conditions, without water, food, basic sanitary services (6, 10, 15, 46, 47, 48, 50, 51, 56, s8, s10, s12, s15). They live in jails, when are enchained and forced to be witness of friends' maltreatment, murders and deaths (s15). Girls are repeatedly sexually abused during all the journey and especially at crossing (52). In addition to this, they are also exposed to psychological violence, meaning "scaring, terrorizing, threatening, exploiting, rejecting, isolating, ignoring, insulting, humiliating and ridiculing" (50).

Being a victim of physical, sexual and psychological violence has several negative health outcomes as reported by the scientific and grey literature and stakeholders. The main health problems are consequences of difficult living conditions they experienced during the previous years. It is common that symptoms they have are results of somatization process. The main symptoms are: musculoskeletal and gastrointestinal pain, and headache. Pain, bleeding or discharges in genitals, sexually transmitted infectious, amongst others, HIV, and unwanted pregnancy are the main consequences of sexual violence (12, 24, 28, 29, 33, 34, 35). A relevant issue is refugee girls' sexual and reproductive health: in fact, it has been reported that during their detention in Libyan camps, they are injected with contraceptive drugs in order to avoid unwanted pregnancy (59). It can be also true that the number of pregnancies is smaller in comparison to the frequency of sexual abuse they are exposed to because the health conditions are poor to let the body be ready for a pregnancy (s5, s6). It has to be also remarked that those refugee girls who arrive in Italy still pregnant or who delivered on the boat, usually do not want to continue or do not want a baby who is the result of abuse (s5, s6). It has to be remembered that their understanding of pregnancy is different from the Western one. In fact, refugee girls who get pregnant during the journey or in Libya and who arrive in Italy at the moment of delivery or few days or hour after the deliver often do not mind about the potential death of their babies, not because they are the consequence of abuse, but also because the death of a baby is culturally accepted (s5).

Results of the scientific and grey literature and stakeholders agree about the most common psychiatric diagnosis among refugee girls: PTSD (alone or in combination with depression), depression, and anxiety (18, 19, 20, 21, 28, 30, 32, 33, 38, 39, 41, 42, 43, 56, 59, s2, s3, s5, s7, s12). These negative mental health outcomes are consequences of several factors, such as female gender, young age, lacking social support (31, 32, 41, 56). An interesting point strengthened by some stakeholders is that all the experiences they pass through during the journey that usually are defined as traumatic could be instead defined as dramatic and not necessarily ending up in PTSD. From an ethno-psychiatric point of view, in fact, the journey they face could be understood as a new form of the rite of passage from childhood to adulthood that usually African adolescent experience in their home country. The journey could represent a new transition phase which is full of suffering, but not traumatic because experiencing violence is more common in African societies that in Western ones. What is defined as traumatic from a Western point of view could be a seen as a dramatic and hard passage from a life-time to another according to other cultures (61, s10, s14, s15). This perspective challenges the Western psychiatry: dramatic experiences cannot be, by default, classified as PTSD, because the experience of what is trauma is absolutely personal. As consequence, PTSD defines the trauma as an experience with an end, "post-traumatic", but as stated above, the post-migration phase also

exposures unaccompanied minors to risks to develop negative mental health outcomes, which is in contradiction with the Western approach to define as traumatic something that only happened before the resettlement. In addition, diagnosing PTSD implies attributing a Western disease to cultures that do not know what PTSD means and that understand psychological problems as results of magical or religious process (s14). Then, it is also controversial defining PTSD as an illness that can be cured after a treatment, because it is extremely personal going beyond dramatic experiences (61, s14).

These health problems demand that female unaccompanied refugee girls receive specific psychological support but it has to be highlighted that cultural plays a central role in understanding what health is. Health and psychological professionals who work in Italy have to be adequately trained in order to avoid imposing Western categories on what is reported by refugee girls. What in African countries may be understood as a result of witchcraft, is clearly not according to biomedicine, and it is essential that service providers are culturally sensitive in their response to different explanatory models. It is interesting for instance to report the case of Nigerian girls: the girls who are involved in sexual trafficking already before leaving the country, thinking they will find an employment in Italy, receive a juju or voodoo rite and swear they will pay back the debt with the money they will earn in Italy. When they arrive in Italy and are forced into prostitution they do not denounce their trafficker not only because of fear but also because of this promise they made and that is renewed in Italy (54). These cultural aspects cannot be underrated in order to understand dynamics and choice refugee girls take. Another example related to the area of witchcraft is given by their understanding of health: psychiatric disorders are not part of African world view and all the symptoms that do not have a physical origin are understood to be the result supernatural processes. Health issues have to be analyzed through a culturally appropriate explanation. Physical health needs have to be recognized and legitimated as real and independent from somatization process (s5). Through trusting relationships with health professional, particularly those who they recognize as someone who can treat them and let them feel better, they should have also to be informed and explained about the possibility to also meet psychologists (and psychiatrists in extreme case) who could help them to feel better in psychological terms (s2, s3, s4, s7, s9, s10, s14). It should be explained that psychological support is an opportunity they have to tell and share what they experienced so that they could feel better. It takes time to fully understand what symptoms they have and also the language they use to describe them is different (61, s5, s10, s15).

Unaccompanied minors as well as victims of trauma and SGBV are amongst the most vulnerable groups and this requires a special effort by professionals who work with them in recognizing their specific psychosocial needs (46). The framework inside that they should have to receive services and

support has to be gender-, age-, and cultural-appropriate. Before beginning to provide health, psychological and social support, it is important to listen to the needs and priorities unaccompanied refugee girls have, according to their individual and psychological age and their culture and background (s10, s15). It is culturally inappropriate to consider refugee girls as minors or as adult women only according to the age they declare. Regardless legal age, refugee girls are mostly adolescents and this implies they have specific health, psychological and social needs.

From a physical point of view, they are still in a transition phase from childhood to adulthood, but in several African cultures puberty is a sign of the transition to adulthood, and after the first menstruation they are considered already women (s10, s15). This physical change implies also a social change putting them more at risk to become victim of sexual violence. They are no longer considered to be children, but are viewed as women. This means that once they arrive in Italy, they are out of phase with their Italian age-mate, because of the different understanding of their individual and social role. In their cultures they are already adults, so once they arrive in Italy their main aim is to work in order to help their families left behind. The reason why they usually do not want to be involved in protection programs dedicated to minors is because they know this process will last longer than they can wait in order to help their families. This can be one the causes that they get involved in sexual trafficking once they arrive and this is a problem also inside the first level structures where they live before be resettled (s8, s15).

First reception structures, in fact, are not adequate: adult men, women and children live their together until they are transferred to second level structure. A risk in this case is that the specific needs of the most vulnerable ones are not often recognized (s4, s8, s9, s12). After the resettlement in second reception structures, they still face problems that can be considered potential psychological risk factors: they live in overcrowded structures where cultural, ethnical, and religious differences are not taken into account, with lack of educational and language services, and they are more involved in recreational than professional activities that they would prefer, because they have to wait to get legal documents (18, 20, 21, 29, 40, 51, s12).

The barriers they meet since they arrive in Italy until they complete the process of resettlement have been recognized as post-migration life difficulties that affect UMs well-being. International and national organizations dedicated to refugees' resettlement should have to be aware of those and being critical in recognizing if they are able to provide those services. First of all, needs and priorities of female unaccompanied refugee minors depend on the phase of their resettlement.

At the moment of arrival, it is important to identity refugee girls, provide them basic goods, such as water, food, shelter, and screening to diagnose potential severe health problems (s10). It is important that the first contact with Italian professional is not traumatic, because can happen that refugees believe that they have arrived back to Libya instead of having arrived in Italy. The moment of arrival is full of emotions and could be a traumatic moment and it is important that refugees have a first contact with culturally adequate trained professional in order to avoid retraumatization (s2, s3, s6, s10, s15). Their permanence in first reception structures should be short and refugee girls should be identified as potential victims of former or further exploitation and abuse. Structures should host a small number of people, trying to aggregate persons of same gender and age but at the same time not dividing families of groups of friends (56, s12)

In general, refugees should be hosted for short periods in first level structure and resettled in more adequate structures, that should also be a temporary solution. It is important not only that UMs are informed about everything that is done or said but also that everything is fully understood by refugee girls and this is the reason why cultural mediators are necessary (s12). It has to be taken into account that refugee girls just resettled do not know Italian and language services need to be provided (s2, s3, s12). Through cultural mediators and other culture- and trauma-sensitive trained professionals they should be informed about legal processes, local laws and services they could benefit from. They came from an unsafe journey characterized by lack of social support and trusting relationships. They need to re-build positive and trusting relationships (s8, s14). They need to be heard in order to understand their needs and priorities, they should be involved in educational and recreational, and professional networks, in order to re-build their individual and social identity (s4, s7, s9, s11).

All the components of psychosocial support listed above have to be provided inside a continuum of care, characterized by multidisciplinary, culturally appropriate trained and integrated professional networks (s,2, s3, s14).

Recommendations

Given that the female unaccompanied refugee minors are a small group among refugees with specific psychosocial needs, the recommendations stakeholders should have to follow are:

• identifying unaccompanied refugee girls at the arrivals to Italian costs, regardless legal definition of minors as those who are under 18 years. Female unaccompanied refugee minors should be identified as group of special concerns with specific gender- and age-related needs.

• knowing their demographic profile: country where they came from, journey from country of origin, exploring the reason why they fled, the route they used, for how long and how they travelled.

• resettling them in adequate first and second level structures where they can be cared for by culture- and trauma-sensitive trained professionals together with cultural mediators in order to receive health and psychological gender- and age specific services.

• listening to refugee girls' stories and believing them

• taking into consideration their health, psychological and social needs and priorities

• providing them health and psychological services by a multidisciplinary team where a cultural mediator has to be present

• explaining and informing them about everything is said and done and why

• providing them appropriate health care services, with specific attention to their sexual and reproductive health (assuming they have been potentially abused)

• providing them appropriate psychological, and psychiatric when is necessary, support

• giving them adequate time and space where they could tell and share their stories, without constriction

• involving them in daily life activities in the communities where they live, creating adequate and realistic projects

• providing language courses

• helping them with legal and bureaucratic procedures, asking to national authorities to shorten and fasten waiting time to get documents

• informing them about services they can benefit from

• helping them to create trusting and positive relationships and re-create their individual and social identity

• helping them to get into legal working network that help them to find a job who can let them make money to send to their families as reward for the journey they did

The recommendations provided would like to guide stakeholders who daily work with female unaccompanied refugee minors. They would like to be guidelines to follow to guarantee the best interest of refugee girls. It is wanted to emphasize that being aware of how to manage the Italian unaccompanied refugee minor' crisis is not a local issue rather a global issue. The increasing number of unaccompanied minors who every day arrive in Italy is a global concern. The global community is asked to care and solve this worldwide problem in order to address the Sustainable Development Goal number 16, "Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels", particularly target 16.2 "End abuse, exploitation, trafficking and all forms of violence against and torture of children".

References

1. Women's Refugee Commission. Refugee girls. The invisible face of war. 2009. Accessed at: https://www.womensrefugeecommission.org/populations/adolescent-girls/research-and-resources/373-refugee-girls-the-invisible-faces-of-war
2. UN WOMEN. Promoting the rights, needs and agency of women and girls in humanitarian action. 2015. Accessed at: http://www.unwomen.org/en/digital-library/publications/2016/5/women-and-girls-in-humanitarian-action
3. ANCI, Caritas Italiana, Cittalia, Fondazione Migrantes, Servizio Centrale dello SPRAR in collaborazione con UNHCR. Rapporto sulla protezione internazionale in Italia 2016. 2017. Accessed at: http://www.sprar.it/wp-content/uploads/2016/12/Rapporto-protezione-internazionale-in-Italia-2016-SINTESI.pdf
4. Women's Commission for refugee women & children. Displaced women and girls at risk: risk factors, protection solutions and resource tools. 2006, February. Accessed at: https://www.womensrefugeecommission.org/resources/239-refugee-protection/595-displaced-women-and-girls-at-risk-risk-factors-protection-solutions-and-resource-tools
5. Robinson D. Women and children refugee numbers crossing into Europe surge. 2016, January 20. Accessed at: https://www.ft.com/content/dff3b5ea-bf99-11e5-9fdb-87b8d15baec2
6. Save the Children. Putting children at the forefront. Save the Children's recommendations for a child-centred EU agenda on migration. 2016. Accessed at: http://images.savethechildren.it/IT/f/img_pubblicazioni/img310_b.pdf
7. Narang Sonia. Stranded in Greece, women refugees live with fear and hunger. 2017, March 16. Accessed at: https://www.newsdeeply.com/womenandgirls/articles/2017/03/16/stranded-greece-women-refugees-live-fear-hunger
8. Reuters. Women and child migrants raped, beaten and starved in Libyan 'hellholes' says Unicef report. 2017, February 28. Accessed at: http://www.telegraph.co.uk/news/2017/02/28/women-child-migrants-raped-beaten-detained-libyan-hellholes/
9. Digidiki V., Bhabha J. Harvard University. Emergency within an emergency. The growing epidemic of sexual exploitation and abuse of migrant children in Greece. 2017. Accessed at: https://cdn2.sph.harvard.edu/wp-content/uploads/sites/5/2017/04/Emergency-Within-an-Emergency-FXB.pdf
10. UNICEF – CHILD ALERT. Un viaggio fatale per i bambini. La rotta migratoria del Mediterraneo centrale. 2017, February. Accessed at: http://www.unicef.it/Allegati/Un_viaggio_fatale_per_i_bambini.pdf
11. Bradby H., Humphris R., Newall D., Phillimore J. Public health aspects of migrant health: a review of the evidence on health status for refugees and asylum seekers in the European Region. Copenhagen: WHO Regional Office for Europe; 2015 (Health Evidence Network synthesis report 44). Accessed at: http://www.euro.who.int/__data/assets/pdf_file/0004/289246/WHO-HEN-Report-A5-2-Refugees_FINAL.pdf
12. Priebe S., Giacco D., El-Nagib R. Public health aspects of mental health among migrants and refugees: a review of the evidence on mental health care for refugees, asylum seekers and irregular migrants in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2016 (Health Evidence Network (HEN) Synthesis Report 47). Accessed at: https://www.ncbi.nlm.nih.gov/books/NBK391045/pdf/Bookshelf_NBK391045.pdf

13. IOM. Mixed migration flows in the Mediterranean. Compilation of available data and information. 2017, April. Accessed at: http://migration.iom.int/docs/Monthly_Flows_Compilation_Report_No5_May_2017.pdf
14. UNHCR, UNICEF, IOM. Refugee and migrant children – including unaccompanied and separated children – in the EU. Overview of trends in 2016. Accessed at: https://data2.unhcr.org/en/documents/download/55971
15. UNICEF – CHILD ALERT. Danger every step of the way. A harrowing journey to Europe for refugee and migrant children. 2016, June. Accessed at: https://www.unicef.org/emergencies/childrenonthemove/files/Child_Alert_Final_PDF.pdf
16. Creswell. Chapter 1. Understanding mixed methods research. 2006, May. Accessed at: https://www.sagepub.com/sites/default/files/upm-binaries/10981_Chapter_1.pdf
17. Creswell. Chapter 4. Choosing a mixed methods design. 2006, May. Accessed at: http://www.sagepub.com/sites/default/files/upm-binaries/10982_Chapter_4.pdf
18. Vervliet M, Meyer Demott MA, Jakobsen M, Broekaert E, Heir T, Derluyn I. The mental health of unaccompanied refugee minors on arrival in the host country. Scand J Psychol. 2014 Feb;55(1):33-7. doi: 10.1111/sjop.12094.
19. Völkl-Kernstock S, Karnik N, Mitterer-Asadi M, Granditsch E, Steiner H, Friedrich MH, Huemer J. Responses to conflict, family loss and flight: posttraumatic stress disorder among unaccompanied refugee minors from Africa. Neuropsychiatr. 2014;28(1):6-11. doi: 10.1007/s40211-013-0094-2. Epub 2014 Feb 6.
20. Vervliet M, Lammertyn J, Broekaert E, Derluyn I. Longitudinal follow-up of the mental health of unaccompanied refugee minors. Eur Child Adolesc Psychiatry. 2014 May;23(5):337-46. doi: 10.1007/s00787-013-0463-1. Epub 2013 Aug 25.
21. Arsenijević J, Schillberg E, Ponthieu A, Malvisi L, Ahmed WAE, Argenziano S, Zamatto F, Burroughs S, Severy N, Hebting C, de Vingne B, Harries AD, Zachariah R. A crisis of protection and safe passage: violence experienced by migrants/refugees travelling along the Western Balkan corridor to Northern Europe. Confl Health. 2017 Apr 16; 11:6. doi: 10.1186/s13031-017-0107-z. eCollection 2017.
22. Mattenschlager A, Nahler S, Reisinger R. [Unseen Suffering - Therapy for Traumatized Refugee Children]. Prax Kinderpsychol Kinderpsychiatr. 2016 Dec;65(10):781-801
23. Zito D. [Child Soldiers as Refugees in Germany]. Prax Kinderpsychol Kinderpsychiatr. 2016 Dec;65(10):763-780.
24. Metzner F, Reher C, Kindler H, Pawils S. [Psychotherapeutic treatment of accompanied and unaccompanied minor refugees and asylum seekers with trauma-related disorders in Germany]. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2016 May;59(5):642-51. doi: 10.1007/s00103-016-2340-9.
25. Spallek J, Tempes J, Ricksgers H, Marquardt L, Prüfer-Krämer L, Krämer A. [The health situation and health care needs of unaccompanied minor refugees - an approximation based on qualitative and quantitative studies from Bielefeld, Germany]. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2016 May;59(5):636-41. doi: 10.1007/s00103-016-2339-2.
26. Rassenhofer M, Fegert JM, Plener PL, Witt A. [Validated Instruments for the Psychological Assessment of Unaccompanied Refugee Minors - a Systematic Review]. Prax Kinderpsychol Kinderpsychiatr. 2016;65(2):97-112. doi: 10.13109/prkk.2016.65.2.97. Review.
27. Schmeling A, Dettmeyer R, Rudolf E, Vieth V, Geserick G: Forensic age estimation—methods, certainty, and the law. Dtsch Arztebl Int 2016; 113: 44–50. DOI: 10.3238/arztebl.2016.004

28. Monpierre O, Baudino P, Rio-René P, Maurice S, Malvy D, Receveur MC. [Global health of unaccompanied refugee minors in Gironde (France) between 2011 and 2013]. Bull Soc Pathol Exot. 2016 May;109(2):99-106. doi: 10.1007/s13149-016-0476-3. Epub 2016 Feb 10.
29. Marquardt L, Krämer A, Fischer F, Prüfer-Krämer L. Health status and disease burden of unaccompanied asylum-seeking adolescents in Bielefeld, Germany: cross-sectional pilot study. Trop Med Int Health. 2016 Feb;21(2):210-8. doi: 10.1111/tmi.12649. Epub 2015 Dec 22.
30. Skårdalsmo Bjørgo, E. M., & Jensen, T.K. Unaccompanied refugee minors' early life narratives of physical abuse from caregivers and teachers in their home countries. Child Abuse & Neglect (2015), http://dx.doi.org/10.1016/j.chiabu.2015.08.003.
31. Oppedal B, Idsoe T. The role of social support in the acculturation and mental health of unaccompanied minor asylum seekers. Scand J Psychol. 2015 Apr;56(2):203-11. doi: 10.1111/sjop.12194. Epub 2015 Jan 22.
32. Eide K, Hjern A. Unaccompanied refugee children--vulnerability and agency. Acta Paediatr. 2013 Jul;102(7):666-8. doi: 10.1111/apa.12258. Epub 2013 Apr 22.
33. Williams B, Cassar C, Siggers G, et al. Medical and social issues of child refugees in Europe. Arch Dis Child 2016; 101:839–842.
34. Devi S. Unaccompanied migrant children at risk across Europe. Lancet. 2016 Jun 25;387(10038):2590. doi: 10.1016/S0140-6736(16)30891-1. No abstract available.
35. Mockenhaupt F, Barbre K, Jensenius M, Larsen C, Barnett E, Stauffer W, Rothe C, Asgeirsson H, Hamer D, Esposito D, Gautret P, Schlagenhauf P. Profile of illness in Syrian refugees: A GeoSentinel analysis, 2013 to 2015. Euro Surveill. 2016;21(10):pii=30160. DOI: http://dx.doi.org/10.2807/1560-7917.ES.2016.21.10.30160.
36. Hjern A, Ascher H. [Hard to accurately determine the age of children seeking asylum]. Lakartidningen. 2015 Oct 12;112. pii: DRFZ. Swedish.
37. Keles S, Friborg O, Idsøe T, Sirin S, Oppedal B. Depression among unaccompanied minor refugees: the relative contribution of general and acculturation-specific daily hassles. Ethn Health. 2016;21(3):300-17. doi: 10.1080/13557858.2015.1065310. Epub 2015 Jul 24.
38. Bronstein I, Montgomery P, Ott E. Emotional and behavioural problems amongst Afghan unaccompanied asylum-seeking children: results from a large-scale cross-sectional study. Eur Child Adolesc Psychiatry. 2013 May;22(5):285-94. doi: 10.1007/s00787-012-0344-z. Epub 2012 Nov 16.
39. Sanchez-Cao E, Kramer T, Hodes M. Psychological distress and mental health service contact of unaccompanied asylum-seeking children. Child Care Health Dev. 2013 Sep;39(5):651-9. doi: 10.1111/j.1365-2214.2012.01406.x. Epub 2012 Jun 7.
40. Chase E. Security and subjective wellbeing: the experiences of unaccompanied young people seeking asylum in the UK. Sociol Health Illn. 2013 Jul;35(6):858-72. doi: 10.1111/j.1467-9566.2012.01541.x. Epub 2013 Jan 10.
41. APA Presidential Task Force on Posttraumatic Stress Disorder and Trauma in Children and Adolescents. Children and trauma. Update for mental health professional. 2011, January*
42. Task Force on Trafficking of Women and Girls. (2014). Report of the Task Force on Trafficking of Women and Girls. Washington, DC: American Psychological Association.
43. Gillies D, Taylor F, Gray C, O'Brien L, D'Abrew N. Psychological therapies for the treatment of post-traumatic stress disorder in children and adolescents. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD006726. DOI: 10.1002/14651858.CD006726.pub2.

44. UNHCR. A framework for the protection of children. 2012. Accessed at: http://www.refworld.org/docid/4fe875682.html
45. International Rescue Committee, UNICEF. Caring for child survivors of sexual abuse. Guidelines for health and psychosocial service providers in humanitarian settings. Accessed at: https://www.unicef.org/pacificislands/IRC_CCSGuide_FullGuide_lowres.pdf
46. UNHCR. Regional refugee and migrant response plan for Europe. January to December 2017. 2016, December. Accessed at: https://www.unhcr.it/wp-content/uploads/2017/01/RRMRP-Europe-2017.compressed.pdf
47. UNHCR. Europe Refugee Emergency. Briefing note. Unaccompanied and separated children. 2015. Accessed at: http://reliefweb.int/sites/reliefweb.int/files/resources/Europerefugeecrisis-briefingnoteonunaccompaniedandseperatedchildren.pdf
48. UNICEF – Per ogni bambino. UNICEF Rapport sull'intervento umanitario 2017. Sintesi. 2017, January.
Accessed at: https://www.unicef.it/Allegati/Humanitarian_Action_for_Children_2017.pdf
49. UNICEF, Hidden in plain sight. A statistical analysis of violence against children. 2014.
Accessed at:
http://files.unicef.org/publications/files/Hidden_in_plain_sight_statistical_analysis_EN_3_Sept_2014.pdf
50. Interagency Working Group. Terminology guidelines for the protection of children from sexual exploitation and sexual abuse. 2016. Accessed at: http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/instructionalmaterial/wcms_490167.pdf
51. UNICEF. Uprooted. The growing crisis for refugee and migrant children. 2016, September. Accessed at: http://www.unicef.it/Allegati/Uprooted_report.pdf
52. Save the Children. Every last girl. Free to live free to learn, free from harm. 2016. Accessed at: http://www.savethechildren.org.uk/sites/default/files/images/Every_Last_Girl.pdf
53. Save the Children. Forced to flee. Inside the 21st largest country. Accessed at: http://reliefweb.int/sites/reliefweb.int/files/resources/FORCED_TO_FLEE.PDF
54. Save the Children Italia Onlus. Piccoli schiavi invisibili. I minori vittime di tratta e sfruttamento: chi sono, da dove vengono e chi lucra su di loro. 2016, July. Accessed at: https://www.savethechildren.it/sites/default/files/files/uploads/pubblicazioni/piccoli-schiavi-invisibili.pdf
55. Women's Refugee Commission. USAID. I'm here: adolescent girls in emergencies. Approach and tools for improved response. 2014, October. Accessed at: https://www.womensrefugeecommission.org/populations/adolescent-girls/research-and-resources/1078-i-m-here-report-final-pdf
56. MSF. Traumi ignorati. Richiedenti asilo in Italia: un'indagine sul disagio mentale e l'accesso ai servizi sanitari territoriali.
Accessed at: http://www.msf.org/sites/msf.org/files/neglected_trauma_report.pdf
57. UNHCR. Sexual and Gender-Based Violence against Refugees, Returnees and Internally Displaced Persons. Guidelines for Prevention and Response. 2003, May. Accessed at: http://www.unhcr.org/3f696bcc4.pdf
58. Derluyn I, Broekaert E. Unaccompanied refugee children and adolescent: the glaring contrast between a legal and a psychological perspective. International Journal of Law and Psychiatry 31 (2008) 319–330. doi:10.1016/j.ijlp.2008.06.006.
59. Centro Astalli. Quaderni del Sa.Mi.Fo. Centro di Salute per Migranti Forzati. Donne migranti. 2016. 75-84.

Accessed at: http://centroastalli.it/wp-content/uploads/2016/10/Quad_Samifo_1-impag-def.pdf
60. Nuzzolese E, Solarino B, Liuzzi C, Di Vella G. Assessing chronological age of unccompanied minors in Southern Italy. Am J Forensic Med Pathol. 2011.32 (3). 202-207. DOI: 10.1097/PAF.0b013e318221bc73
61. Tribe R, Summerfield D. Mental health of refugees and asylum-seekers. APT. 2002. 8. 240-248.

Annex 1: open- answer questionnaire (Italian)

- Che ruolo ricopre e presso quale struttura?
- Nella sua attività lavorativa/di volontariato ha a che fare con minori stranieri non accompagnati? Se sì, può specificare di quale età, sesso, provenienza geografica?

  (*per le tutte le domande successive, nel caso in cui abbia contatto anche con minori non accompagnate femmine, le chiediamo per favore di focalizzare le risposte su queste ultime o di rispondere confrontando il gruppo delle femmine con quello dei maschi)
- È a conoscenza del viaggio che hanno fatto? Se sì, quale rotta hanno percorso, quando e quanto è durato il viaggio? *
- Può definire che cosa è trauma?
- Nel gruppo di minori non accompagnati con cui è in contatto sono presenti fenomeni di stress psicologico? Se sì, di che tipo e con quali manifestazioni? *
- È a conoscenza o può ipotizzare quali siano state le cause di tali manifestazioni? *
- La struttura presso la quale lavora/è volontario, quali servizi offre a questo specifico gruppo (minori stranieri)? *
- Dal suo punto di vista, quali sono i principali bisogni psicosociali di cui questo gruppo necessita? *

Annex 1: open-answer questionnaire (English)

- Which and where is the structure where do you work? What is your role?
- In your position as professional or volunteer, do you have contacts with unaccompanied minors? If yes, could you please describe their demographic profile (age, gender, country of origin)?
- Do you know their journey? Which route did they use? How did they travel? How long did the journey last? *
- How would you define the word “trauma”?
- Among unaccompanied minors you are in contact with, are some of them affected by psychological distress? If yes, what type of psychological distress and what are signs and symptoms? *
- Do you know or could you imagine what are the causes of psychological distress? *
- What are the services provided by the structure where do work/volunteer? *
- In your opinion, what are their main psychosocial needs? *

(If in your professional/volunteering activity you are in contact with female unaccompanied refugee minors, please focus your answer on them for all the questions with this symbol *)

Annex 2: stakeholders

	NAME	PROFESSIONAL PROFILE	AFFILIATION
s1	Rosa Brancaloni	Psychologist and psychotherapist of minors	Caritas, Roma
s2	Francesco Camisotti	Referent of reception projects	Prima e seconda accoglienza per adulti e minori (first and second reception structures for adults and unaccompanied minors), Bologna and Imola.
s3	Antonella Ciccarelli	Case manager	SPRAR (Protection System for Asylum-Seeker and Refugees) e FAMI (Asylum, Migration, Integration Fund) MSNA (Unaccompanied Minors), Bologna
s4	Antonella Costantino	Case manager	Unità Operativa di Neuropsichiatria dell'Infanzia e dell'Adolescenza – UONPIA – della Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, (Neuropsychiatry Department), Milano
s5	Ornella Dino	Pediatrician, responsible of migrant population reception health services	Presidio Aiuto Materno: Servizio di Accoglienza per Cittadini Extracomunitari (Health care System for not-EU citizens), AUSL (Provincial Health Care System), Palermo
s6	Simona La Placa	Pediatrician	Azienda Ospedaliero-Universitaria Policlinico "P. Giaccone" (University Hospita), Palermo
s7	Giulia Magnani	Child neuropsychiatrist, psychologist and psychotherapist	Servizio di NPIA Territoriale AUSL (Local Department of Child Neuropsychiatry of the Provincial Health Services), Bologna
s8	Francesco Malavolta	Independent photo reporter	
s9	Rosa Mazzoni	Case manager	Unità Operativa di Neuropsichiatria dell'Infanzia e dell'Adolescenza – UONPIA – della Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, (Neuropsychiatry Department), Milano

s10	Maria Chiara Monti	Ethno-psychologist	Servizio di Etnopsicologia Unità Operativa Medicina delle Migrazioni, Azienda Ospedaliera Universitaria Policlinico "P. Giaccone" (Ethno-psychology Service of Health Care Service for Migrants, University Hospital), Palermo
s11	Alberto Mossino	Director	P.I.A.M Onlus (Service of Reception and Integration for Migrants), Asti
s12	Angela Natoli	Director	Unaccompanied Minors dedicated reception structure, Palermo
s13	Elena Perlino	Independent photo reporter	
s14	Giovanni Rovina	Social worker	C.I.S.S. (Integrated Management of Health and Social Services) CIAC-AUSL, Parma
s15	Sebastiano Vinci	Ethno-psychologist	Servizio di Etnopsicologia (Ethno-psychology Service), AUSL (Provincial Health Care System), Palermo

Annex 3: framework of analysis

DEMOGRAPHIC PROFILE	GENDER	AGE	COUNTRY OF ORIGIN	REASON TO FLEE	FORMER MENTAL HEALTH STATUS
JOURNEY	TRAJECTORY	HOW	HOW LONG		
RISKS	PRE-JOURNEY	DURING-JUORNEY	AFTER-JOURNEY	VIOLENCE	
MENTAL HEALTH OUTCOMES	GENDER	AGE	PSYCHIATRIC DIAGNOSIS	SIGNS AND SYMPTOMS	CULTURAL ASPECTS
PSYCHOSOCIAL NEEDS	GENDER	AGE	DISORDER-RELATED		

Annex 4: PubMed results

KEY WORDS	NUMBER OF RESULTS	RELEVANT ARTICLES	ARTICLES ALREADY FOUND	NEW ARTICLES
unaccompanied refugee minors AND Europe	21	15	/	**15**
unaccompanied refugee children AND Europe	28	22	14	**7**
unaccompanied refugee adolescents AND Europe	28	22	19	**1**
unaccompanied refugee minors AND Italy	1	1	1	/
unaccompanied refugee children AND Italy	1	1	1	/
unaccompanied refugee adolescents AND Italy	0	0	/	/
female unaccompanied refugee minors AND Europe	14	10	10	/
female unaccompanied refugee children AND Europe	19	15	15	/
female unaccompanied refugee adolescents AND Europe	21	17	17	/
female unaccompanied refugee minors AND Italy	0	0	/	/
female unaccompanied refugee children AND Italy	0	0	/	/
female unaccompanied refugee adolescents AND Italy	0	0	/	/
unaccompanied refugee minors AND mental health AND Europe	9	9	/	/
unaccompanied refugee children AND mental health AND Europe	15	13	13	/
unaccompanied refugee adolescents AND mental health AND Europe	14	13	13	/
female unaccompanied refugee minors AND mental health AND Europe	4	4	4	/
female unaccompanied refugee children AND mental health AND Europe	8	7	7	/
female unaccompanied refugee adolescents	9	9	9	/

AND mental health AND Europe				
unaccompanied refugee minors AND mental health AND Italy	1	1	1	/
unaccompanied refugee children AND mental health AND Italy	1	1	1	/
unaccompanied refugee adolescents AND mental health AND Italy	0	0	/	/
female unaccompanied refugee minors AND mental health AND Italy	0	0	/	/
unaccompanied refugee minors AND physical violence AND Europe	2	2	2	/
unaccompanied refugee minors AND sexual violence AND Europe	1	0	0	/
unaccompanied refugee minors AND psychological violence AND Europe	2	2	2	/
unaccompanied refugee minors AND psychological distress AND Europe	0	0	/	/
unaccompanied refugee minors AND psychosocial needs AND Europe	1	1	1	/
	204	166	11	**23**

Annex 5: PsycINFO results

TOPIC	NUMBER OF RESULTS	ARTICLES SELECTED	NEW ARTICLES
Children	18	1	**1***
Human rights	14	1	1
Immigration	4	0	0
Post-traumatic stress disorder	3	1	0
Sexual abuse	3	1	0
Teens	6	1	0
Trauma	3	1	0
Violence	6	1	0
	57	7	**2**

(*: the paper has been published before 2012, but has been considered relevant and as such, included)

Annex 6: Cochrane Library results

KEY WORDS	NUMBER OF RESULTS	ARTICLES SELECTED	RELEVANT ARTICLES
Child health AND mental health	97		
Child health AND mental health: anxiety disorders	11	5	1
Child health AND mental health: bipolar disorder	4	0	0
Child health AND mental health: depression	19	5	0
Child health AND mental health: eating disorders	2	0	0
Child health AND mental health: effective practice/health systems	5	0	0
Child health AND mental health: mental health in general	9	2	0
Child health AND mental health: mood disorders	2	1	0
Child health AND mental health: obsessive-compulsive disorder	1	0	0
Child health AND mental health: schizophrenia & psychosis	43	2	0
Child health AND mental health: somatoform disorders	1	0	0
	97	15	1

Annex 7: systematic review of scientific literature