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**STIGMA, EXTREME POVERTY, AND RESIDENTIAL SITUATION:
RESIDENTIAL SEGREGATION, HOUSEHOLD CONDITIONS AND SOCIAL
RELATIONSHIPS SATISFACTION AMONG TRASH PICKERS IN LEÓN
(NICARAGUA).**

Running head: **Stigma, extreme poverty, and residential segregation.**

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Abstract

This study analyses the housing characteristics, residential situation, household conditions and satisfaction with social relations of the trash pickers (N = 99) in León (Nicaragua). Results show that the trash pickers in León lived in slum households. A large percentage of the trash pickers lived in a situation of residential segregation, although a substantial number of them were scattered across different neighbourhoods in the city. However, this does not seem to affect the widespread social rejection perceived by those interviewed. The trash pickers living in overcrowded conditions, despite reporting a high level of satisfaction with their relationships with their relatives.

Key words: poverty; social exclusion; trash pickers; residential segregation; Central America

Introduction

Extreme poverty in urban areas is one of the most pressing problems faced by countries in Latin America, where a third of the urban population lives in slum conditions (López Moreno, 2011). UN-HABITAT (2003) defines a slum household as a household that lacks any one of the following five items: a) Access to improved water; b) Access to improved sanitation; c) Security of tenure; d) Durability of housing; and e) Sufficient living area (no overcrowding). In Latin America, 2.8% of homes lack electricity, 26.3% have no flush toilet or outside latrine, 16.3% are built with precarious materials and 9.9% have no access to tap water (World Bank, 2013). The problem of urban insecurity is particularly acute in countries such as Haiti and Nicaragua, as more than 80% of the urban population in those countries lives in slums (Lopez Moreno, 2011).

According to Hardoy and Pandiella (2009), low-income groups in Latin America tend to live in neighbourhoods with high population densities, in housing generally built using inadequate materials, and in situations of overcrowding. Both objective overcrowding (measured by the number of people per room) and subjective overcrowding (defined as the perception of excessive social interactions and/or the lack of privacy) are closely related to problems with health and social relations (Evans, Lepore, and Allen, 2000; Gove, Hughes, and Galle, 1979;). Indeed, the Pan American Health Organization (OPS, 2000) notes that living in a situation of overcrowding has an impact on individuals' quality of life and overall health, as overcrowding in housing has a negative impact on physical and mental health (Gove, et al., 1979; Gray, 2001; Lund et al., 2010; Vázquez, 2017), has negative implications for personal and family life (e.g. lack of privacy, more arguments and more stress at home) (George, 2006), leads to inadequate care of children and the sick, and results in a poor quality of social relationships both inside and outside the home (Gove et al., 1979; Guillén, Panadero, Rivas and Vázquez, 2015). The United Nations (1992) also notes that overcrowding in housing is a factor related to issues such as domestic violence, incest, unwanted pregnancies among teenagers, prostitution, drug addiction and crime in general.

However, it must be remembered that overcrowding is largely a psychological response to the number of people living in the home, i.e. the perception of living with too many people, the lack of privacy, a large number of unsought interactions and psychological distress (Evans et al, 2000; Gove et al., 1979; Guillén et al., 2015). According to various authors (Barnett and Lowe, 1991; Gray, 2001), how decision-makers determine what constitutes overcrowding may involve cultural biases which do not necessarily represent the opinion of many population groups.

Residential segregation, deemed to be the physical separation of two or more groups into different neighbourhoods (Massey and Denton, 1988), and socioeconomic residential segregation in particular, is particularly marked in Latin America. Several authors have noted that socioeconomic residential segregation isolates the poor (Katzman, 2001), who due to only having poverty and poor neighbours as their everyday context, limit their horizon of possibilities, their contacts and their potential for exposure to codes, messages and behaviours useful for upward social mobility (Rodriguez and Arriagada, 2004). Some particularly stigmatised groups (e.g. trash

pickers) tend to live in heavily depressed segregated slum neighbourhoods, sometimes with scarce and poor quality contacts with the rest of the population (Vázquez and Panadero, 2016). Socioeconomic residential segregation appears to be a major handicap in the process of improving the situation of stigmatised groups (Suarez, Berrios, Bonilla, and Vázquez, 2018).

According to McCormick, Joseph, and Chaskin (2012) a political response to the stigmatisation of groups living in segregated environments has been to create neighbourhoods containing a mixture of people with different economic capabilities, in an attempt to decentralise poverty and integrate the poor into communities in which their residences are indistinguishable from those of their neighbours. However, these authors note that while this strategy improves the stigma associated with living in a segregated environment, the stigma appears to be intensified in other ways, as the negative reactions of higher-income residents, along with stringent screening and rule enforcement, increases these individuals' feeling of being different in these environments. It should also be noted that some patterns of residential segregation can have a positive impact on social relations, so that sometimes the urban disorder prevalent in many environments with poverty and inequality, and with very high levels of population density (Hardoy and Pandiella, 2009) may have a positive impact on social cohesion (Roberts, 2011).

Nicaragua, with an estimated population of 5.5 million inhabitants, is one of the countries in Latin America with the lowest levels of development (UNDP, 2016). 6.2% of Nicaragua's population lives on less than 1.9 dollars a day, and 29.6% live below the national poverty line (UNDP, 2016). In the context of poverty in Nicaragua, suffering from many stressful life events, including the loss of one's home or multiple changes of residence, is relatively common (Vazquez, Panadero, and Martin, 2015). Indeed, as highlighted by Vázquez (2017), there is a direct relationship between living in conditions of poverty and suffering from a wide variety and a large number of stressful life events. As such, people with more limited financial resources in Nicaragua experience greater quantitative and qualitative suffering from stressful situations, both, during childhood and adolescence (e.g. parents' physical and mental health problems, excessive drinking or drug use by parents, parents' divorce or separation, being raised by people other than their parents, suffering from physical and/or sexual abuse, leaving the family home, etc.) as well as throughout their lives (e.g. physical and mental health problems, accidents, excessive alcohol or drug consumption, divorce or separation, assaults by their partner, suicide attempts, etc.) (Vázquez, 2017). Inadequate housing conditions, and living in situations of overcrowding in particular, may be related to suffering from many of the aforementioned stressful life events (George, 2006; Gove et al., 1979; Gray, 2001; Guillén et al., 2015; Lund et al., 2010; OPS, 2000; United Nations, 1992, Vázquez, Panadero, and Rincón, 2007).

The weakness of the Nicaraguan productive system and the large number of people living in extreme poverty in the country in recent decades has forced relatively large groups of people to seek their livelihood in landfill dumps, with the serious health problems and the heavy social stigmatisation that this entails. While the trash pickers' work primarily consists of selecting and collecting items that can be sold for recycling -

mainly plastic, metal, glass, paper and cardboard - they usually also collect basic goods from the rubbish for their own direct consumption (e.g. food, clothing, footwear, household goods, etc.) and for construction and use in their homes (Vázquez, 2016; Vázquez and Panadero, 2016). Several projects have been implemented in Nicaragua under the auspices of international cooperation agencies, aimed at alleviating the trash pickers' situation, and the one carried out with those working in the dump in the capital city of Managua is particularly well-known (Zapata Campos and Zapata, 2013). That project has had positive social implications for both the trash pickers who lived next to the dump, for the neighbourhoods adjacent to the dump and for the rest of the city (Zapata and Zapata Campos, 2015; Zapata Campos and Zapata, 2014).

Until the development of the project, La Chureca was the open rubbish dump of Managua and home to about 300 families. Approximately 2000 waste collectors – women, men, and children – worked at La Chureca, exposed to toxins and contaminants. In addition, the conditions under which the rubbish was mismanaged at the dump caused heavy contamination of nearby Lake Xolotlán, affecting the health and environmental safety of the whole metropolitan region of Managua (Zapata and Zapata Campos, 2015; Zapata Campos and Zapata, 2014). From 2009 to 2013, the Barrio Acahualinca Integrated Development Programme, funded by the Spanish Agency for International Development Cooperation and coimplemented by Managua municipality, sealed the open dump, constructed a new sanitary landfill, constructed a recycling station where many former informal waste collectors now formally work for the municipality, and built new housing for slum resident (Zapata Campos and Zapata, 2014).

The city of León (Nicaragua) has a colonial architectural structure, a long-standing university tradition, and is an important industrial and business centre in the country, with a population of 185,000 inhabitants (Vazquez, Panadero, and Rivas, 2015). Estimates suggest that more than half of León's inhabitants live below the poverty line, and that there are major population groups living in extreme poverty (Vazquez and Panadero, 2016; Vázquez et al., 2015). The poorest groups in León include the city's trash pickers who are heavily stigmatised despite doing work that is socially useful, economically productive and environmentally beneficial (Vázquez, 2013; Vázquez, 2016). This stigma is perceived by the pickers themselves, who believe that the rest of the population has a very negative opinion of their group, sometimes with an indulgent image of them: with a difficult past, very bad luck, without financial resources, sick, malnourished, physically and psychologically worn out, etc. (Vazquez, 2016). The trash pickers in the city of León have grown up in poor families and have been poor throughout their lives (Vázquez and Panadero, 2016). However, despite the extreme poverty in which they live and the stigmatisation they suffer from, in general they say that they are happy and optimistic about their future (Vazquez, 2013).

The lack of research conducted to date on the lives of people who obtain their livelihood from the trash, one of the poorest groups in the least developed countries, has given rise to this study. Its objective is to obtain comparative information on housing conditions among the trash pickers, their residential situation, their household conditions and satisfaction with their social relationships, which have important

implications in their social inclusion processes. We hope that the conclusions that can be drawn from this study will prove useful for these heavily stigmatised people who are subjected to very difficult circumstances in life, to improve their quality of life, and prevent their children from being doomed to deal with the pseudoinheritance of extreme poverty and social exclusion suffered by their parents (Vazquez and Panadero, 2016).

Method

Participants

The participants in the research were 99 trash pickers in León (Nicaragua), a group that is difficult to access, heavily stigmatised, and lives in extreme poverty. When the study was undertaken, the number of trash pickers in León was well defined, meaning that it was possible to interview all of them: 92 worked mainly in the metropolitan landfill dump and 7 worked in the former city dump, which has become an illegal landfill. The main demographic characteristics of the trash pickers in León are shown in Table 1.

Table 1. Main socio-demographic characteristics of trash pickers in León (Nicaragua).

Characteristics	n	% / Mean (SD)
Sex		
Male	72	72.7%
Female	27	27.3%
Age (Mean (SD))		
14 to 19 years old	10	10.1%
20 to 29 years old	34	34.3%
30 to 39 years old	30	30.3%
Over 40 years old	25	25.3%
Marital status		
Single	27	27.3%
Married	20	20.2%
Stable de facto union	49	49.5%
Separated	2	2.0%
Widow/er	1	1.0%
Number of children - Mean (SD)-		
No children	13	13.1%
One child	23	23.2%
Two children	14	14.1%
Three children	17	17.2%
Four children	13	13.1%
Five children	9	9.1%
More than five children	10	10.1%
Monthly income		
Less than 25 dollars	11	12,5%
25 to 40 dollars	34	38.6%

Characteristics	n	% / Mean (SD)
40 to 65 dollars	14	15.9%
More than 65 dollars	29	33.0%

As shown in Table 1, 73% of the trash pickers in the city of León were male. Their average age was around 32 years old. Ten were aged between 14 and 19 years old, while three of them were under 16 years old. A quarter of the respondents were over forty years old. 69.7% of the trash pickers were in a relationship, which were mostly de facto unions. The vast majority (86.9%) had children. While the respondents had a mean of three children, 13% did not have any children, while 20% had five or more. More than half of the trash pickers had a monthly income of less than forty dollars, i.e. less than 1.5 dollars per day.

Procedure and data analysis

The work involved in approaching the sample began by holding separate meetings with both the trash pickers who worked in the landfill dump and the illegal dump, and with community leaders, which led to the production of a list that included all the trash pickers in the city. After the list was completed, the participants were located with the support of community leaders and the trash pickers' neighbours, relatives, colleagues and friends. After each interviewee had been located, the purpose of the research was explained to them and their informed consent to the interview was requested. When the person agreed to cooperate (which happened in all cases), an appointment was made with the interviewer in a community centre, at the dump, at the home of a community leader or in the interviewee's own home, where the interview was conducted.

The information was collected using a heteroapplied structured interview, which enabled the problems associated with the trash pickers difficulties with reading and understanding to be circumvented. The interviews lasted between 45 and 80 minutes. The structured interview collected information on various aspects related to individuals making their living from garbage in the city of León (Nicaragua): sociodemographic characteristics, home and cohabitation, education, employment situation and income, social support, health, victimisation, stereotypes and meta-stereotypes, interests and expectations, values and general happiness.

The database was developed and processed using the SPSS statistical analysis and data management system. The data obtained were used to perform a descriptive analysis that included the information about the trash pickers. When making comparisons, the Chi Square (χ^2) statistic was used for nominal variables, and the "Student t test" for independent samples was used for continuous variables.

Results

The 99 trash pickers in the city of León (Nicaragua) had homes at the time of the interview. 49.5% lived in a neighbourhood near the dump called "Reperto Hamburgo", 23.2% lived in the "Walter Ferreti" neighbourhood, and 10.1% in the "Ronald Sandino"

neighbourhood. The remaining 17.2% lived scattered across ten other districts in the city.

69.7% of the trash pickers believed that those working in the dump were socially rejected by the city's population, although there were significant differences in this respect depending on the neighbourhood in which they lived. When asked about their "overall satisfaction with their relations with the residents of the neighbourhood," 76.8% of the respondents said they were satisfied (35.4% "very satisfied", 23.2% "quite satisfied", 18.2% "somewhat satisfied"), while 14.1% were dissatisfied (6.1% "very dissatisfied", 4.0% "quite dissatisfied", 4.0% "somewhat dissatisfied") and 8.1% felt "neither satisfied nor dissatisfied" about this issue. No statistically significant differences were observed in terms of overall satisfaction with relations with the residents of the neighbourhood depending on which neighbourhood the trash pickers lived in.

As shown in Table 2, approximately one third of the respondents lived in homes with only one room and another third did so in houses with only two rooms. More than half of the trash pickers owned their own home, while 32.4% lived free of charge in houses given to them or shared.

Among the trash pickers living in the "Reparto Hamburgo" neighbourhood, 20.4% lived in homes with one room, 49.0% in homes with two rooms, and 30.6% in homes with three or more rooms. Meanwhile, of the respondents living in other neighbourhoods, 48.9% lived in homes with a single room, 24.4% in homes with two rooms and 26.7% in households with three or more rooms ($\chi^2= 12.848$; $p = .025$). No statistically significant differences were observed with regard to the trash pickers' ownership of their home depending on the neighbourhood in which they lived.

As shown in Table 2, the walls of the homes of more than half the trash pickers were built using precarious and inadequate materials (cardboard, plastic, rubble, zinc panels, etc.) and the floor was dirt packed down by use. For 40.4% of respondents, the main source of water consumption in the house was a well - either their own or communal - and more than 20% of the trash pickers had no toilet in their home, although 77.7% had a latrine or toilet. Although the vast majority of their homes had an electricity supply, and over 79% of the respondents had a television, none of the trash pickers' homes had a computer.

Table 2. Housing conditions of trash pickers in León (Nicaragua).

	n	%
Number of rooms in the home		
One room	32	32.3%
Two rooms	35	35.4%
More than two rooms	29	29.3%
The home in which he/she lives with his family is:		
Their own	55	55.6%
Shared free of charge	26	26.3%
Given free of charge	6	6.1%

	n	%
Rented	3	3.0%
Other	8	8.1%
Material used to build the walls of the home		
Cardboard/plastic/rubble/zinc panels	55	55.6%
Bricks/concrete	41	41.4%
Flooring material in the home		
Earth	54	54.5%
Tiled floor	31	31.3%
Cement or mud brick	12	12.1%
Main source of water consumption in the home		
Inside plumbing	34	34.3%
Own well	16	16.2%
Communal well	24	24.2%
Communal standpipe	4	4.0%
Other	19	19.2%
Type of toilet in the home		
Lavatory	13	13.1%
Latrine	64	64.6%
None	21	21.3%
Other facilities in the home		
Indoor electricity supply	90	90.9%
Television	72	72.7%
Computer	0	0%
Satisfaction with their housing conditions		
Very dissatisfied	15	15.2%
Not satisfied	38	38.3%
Neither satisfied nor dissatisfied	11	11.2%
Satisfied	32	32.3%
Very satisfied	2	2.0%

Among the trash pickers living in the "Reperto Hamburgo" neighbourhood, 67.3% lived in a house built with bricks and/or cement and 32.7% lived in a home built with precarious and inadequate materials (cardboard, plastic, rubble, zinc panels, etc.) while among the trash pickers living in other districts, 17.0% lived in homes built with bricks and/or cement and 83.0% in dwellings built with precarious and inadequate materials ($\chi^2= 24,831$; $p=.000$). 73.4% of the trash pickers who lived in the "Reperto Hamburgo" had a well (either their own or communal) as the main source of water in their home, and none (0.0%) had "outside plumbing" or tap water in their home. Meanwhile, among the trash pickers who lived in other neighbourhoods, 70.8% had "inside plumbing" and 8.4% had a well (either their own or communal) as their main source of water ($\chi^2= 64 884$; $p=.000$). Furthermore, among the trash pickers who lived in the "Reperto Hamburgo" 79.6% had a latrine, 12.2% had a toilet and 8.1% had neither a latrine nor a

toilet, while among the trash pickers who lived in other neighbourhoods in the city, 51.0% had a latrine, 14.3% had a toilet and 34.7% had neither a latrine nor a toilet ($\chi^2=11,206$; $p=.011$) No statistically significant differences were observed with regard to the electricity supply in the home depending on the neighbourhood in which the trash pickers lived.

As is apparent from Table 2, 53.5% of the trash pickers said they were dissatisfied or very dissatisfied with their housing conditions, while 34.3% of the respondents said they were satisfied (satisfied or very satisfied) in this regard.

45.7% of the respondents whose homes were constructed with brick and/or cement walls reported feeling dissatisfied or very dissatisfied with their housing conditions, while 70.6% of the trash pickers living in homes with walls built with precarious and inadequate materials: cardboard, plastic, rubble, zinc panels, etc. said they were dissatisfied or very dissatisfied ($\chi^2=5.372$; $p=.018$). No statistically significant differences were observed with regard to the trash pickers' satisfaction with their housing conditions according to the following variables: a) residence in the “Reparto Hamburgo” or elsewhere in the city; b) availability of indoor electricity supply; c) main source of water consumption; d) type of toilet in the home; e) number of people living in the home; f) number of rooms in the home and g) the number of people per room living in the homes.

Table 3. Number of rooms in the home and people living with trash pickers in León (Nicaragua)

	n	Mean (SD) / %
Number of people living in the home – M (SD)	99	7.55 (4.52)
Number of rooms in the home –M (SD)	94	2.14 (1.24)
Number of people per room in the home - M (SD)	95	4.27 (2.95)
People sharing the home with the trash pickers		
Children	76	75.8%
Number of children -M (SD)	76	2.49 (1.33)
Spouse or partner	67	67.6%
Brothers	30	30.3%
Number of siblings -M (SD)	30	3.47 (2.58)
In-laws	11	11.1%
Both parents	5	5.1%
Only the father	0	0%
Only the mother	20	20.2%
Grandparents	4	4.0%
Other relatives	50	50.5%
Number of other relatives -M (SD)	50	4.18 (3.46)
Other people	9	9.1%

As shown in Table 3, the trash pickers' homes had an average of around two rooms, and an average of 7.5 people, who were mostly family members - partner, children, parents, siblings or other relatives - lived in them. An average of more than four people per room in the dwelling lived in the trash pickers' homes.

The homes built with precarious and inadequate materials (cardboard, plastic, rubble, zinc panels, etc.) had on average 1.83 rooms ($SD = 1.061$), while those built with bricks and cement had an average of 2.56 rooms ($SD = 1.343$) ($t = 2.946$, $p = .004$). No statistically significant differences were observed with regard to the type of materials with which the walls of the homes were built in terms of the number of people per room living in the homes, or in relation to the belief that people working in the dump were socially rejected by the people of León. Furthermore, no statistically significant differences were observed in terms of the number of people living in each room in the home between those residing in the "Reparto Hamburgo" and those living elsewhere in the city.

When the trash pickers were asked about their "satisfaction with their relationship with their families," 80.8% said they were satisfied (24.2% "very satisfied" and 56.6% "quite satisfied"), while 17.1% expressed dissatisfaction (14.1% "not very satisfied" and 3.0% "not at all satisfied"). No statistically significant differences were observed with regard to the relationship with family members based on the number of people per room living in the homes.

Discussion and conclusions.

Trash pickers in the city of León live in extreme poverty (Vazquez, 2016; Vázquez, 2017; Vázquez and Panadero, 2016). However, this does not prevent them from having access to housing, as none of them are homeless. Apparently, the meagre income they obtain from collecting garbage has given the trash pickers access to a home where they live with their families, which they own in the vast majority of cases. Although this access to housing has sometimes occurred with support from international cooperation agencies, in most cases the trash pickers had built the house in which they lived using their own resources.

Half of the trash pickers in León lived in the "Reparto Hamburgo", a district in the vicinity of the former city dump created by international cooperation agencies in 1998, where a number of small houses made of brick and cement were built and ownership was transferred to their inhabitants. A third of the trash pickers lived in two neighbourhoods relatively close to the former dump ("Walter Ferreti" and "Ronald Sandino"), while the remaining 17% lived scattered across ten other different districts in the city. There therefore appear to be two patterns of residence among the trash pickers in the city of León: a) in situations of residential segregation (more than 70% were concentrated in two neighbourhoods: "Reparto Hamburgo" and "Walter Ferreti") or b) scattered across various outlying neighbourhoods in the city.

Despite doing work that is socially useful, economically productive and environmentally beneficial, the trash pickers are heavily stigmatised (Vázquez, 2016). This stigma was clearly perceived by the pickers themselves, two thirds of whom believed that the population of León rejected them because they work at the dump, with

no differences in this respect between the residents of neighbourhoods near the old dump, where they lived with many other trash pickers, and residents of neighbourhoods further away from the dump, where they were often the only residents working as trash pickers. However, despite this perceived rejection by the population, the trash pickers were mostly satisfied with their relationship with the residents of their communities, regardless of the neighbourhood in which they lived. As a result, in Leon, residentially segregating this heavily stigmatised group or distributing it across various neighbourhoods does not seem to have a major influence on the pickers' meta-stereotype or their satisfaction with their relationships with their neighbours.

In principle, the trash pickers' distribution across different neighbourhoods could facilitate their integration into the city's social fabric, by preventing their isolation (Katzman, 2001) and the serious problems associated with socioeconomic residential segregation (Rodríguez and Arriagada, 2004). However, in the case of trash pickers in León, this strategy does not appear to improve the stigma associated with working at the dump. As McCormick et al. (2012) point out, while mixing stigmatised people with the rest of the population may help improve the stigma associated with living in a segregated environment, it may enhance other forms of discomfort, by increasing these individuals' sensation of feeling different in these contexts. However, in the case of León's trash pickers, their distribution across various neighbourhoods does not result in lower levels of satisfaction in their relationships with their neighbours.

According to López Moreno (2011), 80% of Nicaragua's urban population lives in slums. Based on the UN-HABITAT criteria (2003), León's trash pickers live in slum households, in small homes (usually with one or two rooms) with major shortcomings in their construction and basic facilities. Due to the characteristics of the "Reparto Hamburgo" (where international cooperation agencies built a number of small homes), 67% of the trash pickers who lived in this neighbourhood did so in a home built with bricks and cement, with at least two rooms. However, outside the "Reparto Hamburgo", 83% of the trash pickers lived in homes built with precarious and inadequate materials (cardboard, plastic, rubble, zinc panels, etc.), which usually had a dirt floor and just one room. Since the trash pickers are unable to access homes built with adequate materials and equipped with appropriate facilities with equipment their own resources, support from international cooperation agencies and the country's government is essential in helping them to access housing with some minimum standards of quality. An example of an initiative that could be considered is the project implemented with the support of international cooperation agencies aimed at improving the situation of habitability and quality of life among trash pickers in Managua (Nicaragua) (Zapata Campos and Zapata, 2013). Despite enhancing the residential segregation of trash pickers, with the negative consequences that this may have (Rodríguez and Arriagada, 2004), this project has had positive effects for both the trash pickers themselves and for the neighbourhoods adjacent to the dump and elsewhere in the city (Zapata and Zapata Campos, 2015; Zapata Campos and Zapata, 2014).

In the Nicaraguan context, there is a very positive attitude towards the role of international cooperation, and cooperation organizations are considered reliable institutions that do very important work (Vazquez, 2011). However, the lack of

sustainability in some cooperation projects may lead to the emergence of difficulties for their beneficiaries. For example, most of the trash pickers who lived in the "Reperto Hamburgo" lacked drinking water in their homes, and mainly used untreated water from wells. This is because the drinking water system in this neighbourhood was developed by international cooperation agencies and was inaugurated in 2000. Shortly after its launch, the system began to experience technical problems (mainly with the batteries and water pump) and because of the lack of resources to maintain it, it soon stopped working. As a result, the population decided to dig hand-drawn wells, as water is available at relatively limited depths.

In addition to the poor construction quality of the homes where the trash pickers lived, there are major shortcomings in their basic facilities. Regardless of the area in which they live, the main source of water consumption for a significant number of respondents was a well, with the hygienic and health problems that may result from daily consumption of untreated water. In addition, outside the "Reperto Hamburgo", one in three pickers had no latrine or toilet.

The most common toilet facility in the trash pickers' homes was a latrine, used very widely in Nicaragua (UN-HABITAT, 2008). In this regard, the pickers' situation in terms of access to toilet facilities was not very different to that of a large percentage of the population of Nicaragua. We also observed that regardless of the neighbourhood in which they lived, more than 90% of the respondents had an electricity supply inside their home, which was mainly obtained by illegal connections to the grid. Having an electricity supply enabled the trash pickers to use appliances such as televisions, which 73% of the respondents owned, among other items. In addition to entertainment, access to television gave the pickers access to a relatively high level of news. However, none of the trash pickers had a computer in their home. The cost of a computer and an Internet connection, together with the literacy difficulties present among many members of this group (Vazquez, 2013) means that the pickers did not have access to devices of this type, thereby accentuating the "digital divide" that separates them from the rest of the population. This issue is a concern because access to new communication technologies has now become a very important factor in the process aimed at improving the situation of disadvantaged groups, as the increase in the "digital divide" negatively affects the quality of life of those concerned (Vazquez, Panadero, Martín and Diaz-Pescador, 2015).

Despite the major shortcomings in construction and facilities in their homes, the trash pickers appear to be quite satisfied with them, regardless of the neighbourhood in which they live. In fact, half of the respondents reported no dissatisfaction with their housing conditions, and while a larger percentage of the trash pickers with cement and brick homes said they were satisfied, one in three pickers with homes built using precarious and inadequate materials stated they were satisfied with its conditions. The continued efforts of the trash pickers to improve and equip their homes, and a comparison between them and the houses in which they lived in the past, may be behind the relatively widespread feeling of satisfaction with their homes they expressed. Indeed, this issue did not appear to be significantly influenced by aspects such as the

size of the dwelling, its facilities, the number of people living there, or overcrowding in it.

On average, more than four people per room lived in the trash pickers' homes. An average of 7.5 people lived in these small homes, who were mainly related to each other (partner, children, parents, siblings, parents-in-law, grandparents or other relatives). Most trash pickers undoubtedly lived in overcrowded conditions, regardless of the district where they lived or the type of materials with which their home had been built. The financial hardships that the pickers had to face, together with a cultural tradition in which living with members of the extended family is common, helps to explain the respondents' living conditions. Unfortunately, overcrowding is strongly related to problems with social and family relations, and with physical and mental health (George, 2006; Gove, et al., 1979; Gray, 2001; Guillén et al., 2015; Lund et al., 2010; OPS, 2000; Vázquez, 2017) and even with problems such as domestic violence, incest, unwanted pregnancies among teenagers, prostitution, drug addiction and crime in general (United Nations, 1992). Furthermore, the high level of overcrowding appears to be related to suffering from multiple stressful life events, both during childhood and adolescence and through adulthood (Vazquez et al., 2015).

However, overcrowding is largely a psychological response to the number of people living in a home, i.e. the subjective perception of living with too many people, of a lack of privacy, and a large number of unwanted interactions (Evans et al., 2000; Gove et al., 1979; Guillén et al., 2015). Furthermore, as some authors point out, determining what constitutes overcrowding may incorporate cultural prejudices, and may not represent the opinion of many population groups (Barnett and Lowe, 1991; Gray, 2001). In addition, in León, a city with an extremely warm climate, daily life largely takes place outside the home, especially in the poorest neighbourhoods on the outskirts of the city. Regardless of their size or the materials used in their construction, virtually all homes - including those of the trash pickers - have a courtyard or outdoor space, where the latrine is usually located, and the inhabitants cook, chat and even sleep in hammocks. This situation may mean that the subjective feeling of overcrowding among the trash pickers is not as acute as might be assumed from the large number of people per room living together in the home.

In the case of the trash pickers, the culturally accepted situation of many extended family members living in the same home may even have positive implications, given the great importance for personal welfare of social networks and reliable sources of support, with the family in a primary position. This issue is particularly important in situations of economic precariousness and social exclusion. In this regard, an indicator of the strength of social support networks among the pickers is the fact that a third of them lived free of charge in assigned or shared houses. As Roberts (2011) points out, the urban disorder that characterises many environments of poverty with very high population density levels (Hardoy and Pandiella, 2009) may have a positive impact on the residents' social cohesion and well-being. Indeed, the vast majority of the trash pickers said that they were very satisfied with their relationship with their relatives, regardless of whether they lived in overcrowded conditions with members of their extended family.

Despite their extreme poverty, the hardships they were forced to face every day, and the stigma they suffered from, most of the trash pickers in León generally felt happy and optimistic about their future (Vazquez, 2013). In this respect, general happiness appears to be based on the satisfaction that people find in different areas of their life (Vazquez et al., 2015), and the negative aspects in the pickers' lives appear to be offset by the well-being they obtain in other areas (Vazquez, 2013). An important source of satisfaction among the interviewees was aspects related to social ties (Vazquez, 2013), especially with relatives and members of their community, with whom most pickers said they had extremely satisfying relationships.

The current work aims to shed light on to the residential conditions of trash pickers in Nicaragua. This is a heavily stigmatized and socially excluded group, in a county with a collectivist culture and with a low level of social and economic development. Nevertheless, data obtained has allowed to verify the presence of significant strengths among the trash pickers interviewed. These strengths could serve as a foothold on the reduction of the discrimination suffered by them as long as appropriate institutional support is provided, thereby facilitating their social integration.

The pickers in the city of León grew up in poor families, and have been poor throughout their lives (Vázquez and Panadero, 2016). However, giving these heavily stigmatized people the opportunity to improve their quality of life, preventing their children from experiencing the process of pseudoinheritance of the extreme poverty and social exclusion suffered by their parents is an obligation for society. The provision by international cooperation organisations and governments of access to housing with adequate construction conditions and facilities, which provide opportunities for improved family and social relations, could be of considerable help in improving the trash pickers' quality of life and their processes of social inclusion.

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