

Community study of rural and semi-rural people living in severe domestic squalor in the Laurentian region of Québec

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290, rue De Montigny, Saint-Jérôme (Québec) J7Z 5T3

Conception et rédaction

Bruno Cossette, Direction de santé publique des Laurentides
Dre Marie-Claude Lacombe, Direction de santé publique des Laurentides

Correction et secrétariat

Marie-Pier Guimond, Direction de santé publique des Laurentides
Caroline Latour, Direction de santé publique des Laurentides

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Abstract

We examined 136 cases assessed by local health and social services centre homecare personnel. A review of these records allowed us to gather data on overcrowding, learn more about its causes and consequences in our territory and draw up a portrait of the population concerned. The Laurentian region of Québec covers a large territory characterized by a vast disparity between the regional county municipalities. The differences in cases of severe squalor in urban and rural environments lead to differences in terms of the incidence of reported cases, the presence of animals and various impacts.

What's known

- Severe domestic squalor including hoarding need to be treated with multidisciplinary services.
- Multidisciplinary services are needed in both rural and urban settings.
- Multiples causes can lead to severe domestic squalor condition.

What's this paper adds

- First community study on severe domestic squalor in rural and urban settings.
- Disparities of presentation in rural and urban settings.
- Causes leading to severe domestic squalor can vary with age.

Introduction

Accurately portraying the number of people living in overcrowded conditions and severe squalor is not an easy task. In this study, we examined 136 cases assessed by CLSC (local health and social services centre) homecare personnel. A review of these records allowed us to gather data on overcrowding, learn more about its causes and consequences in our territory and draw up a portrait of the population concerned. The Laurentian region of Québec covers a large territory characterized by a vast disparity between the regional county municipalities (RCMs) in the South and those in the North (Conseil des préfets et des élus régionaux des Laurentides, 2019; Statistics Canada, 2017). The South includes large suburban municipalities and the North, increasingly rural regions. This variance is also obvious with regard to the poverty and social exclusion index, thereby allowing us to verify the disparity between large and small municipalities with regard to hoarding and severe domestic squalor.

Definition of severe domestic squalor

Severe domestic squalor is a reflection of various behaviours, including the hoarding of objects or garbage and sometimes, neglect vis-à-vis the cleanliness of one's living environment. The resulting situation often constitutes a threat to the health and safety of the persons concerned.

According to Snowden et al., the profuse lack of cleanliness in situations of severe domestic squalor is not a diagnosis but rather, an observation of living conditions. Such housing conditions are often linked to medical conditions or specific issues such as dementia, alcoholism or schizophrenia (Snowdon & Halliday, 2009). Severe domestic squalor can also ensue if someone suffers from an anxiety disorder. Compulsive hoarding disorder, which was added to the DSM-V in 2013, is characterized by an ongoing difficulty throwing away or otherwise getting rid of various items, even if they have become useless. This disorder ultimately leads to the accumulation of a large number of objects that take up portions of a person's living space, effectively negating the latter's primary function. (American Psychiatric Association, 2013; Bratitotis & Woody, 2020)

While numerous studies address this behaviour among older persons in a geriatric setting or volunteers under psychiatric care, this study sought to investigate workers' experiences in the field. (Ayers, Iqbal, & Strickland 2014; Ayers, Najmi, Mayes, & Dozier 2015; Roane D. , Landers, Sherratt, & Wilson 2017)

Oftentimes without a clear diagnosis in hand, these workers must urgently intervene when people are facing possible eviction or municipal fines. The various therapeutic options available are increasingly limited by the denial or lack of cooperation of the people involved as well as the need for a speedy response. One of the objectives of the study was to explore whether the approach recommended for large cities should be adapted in the case of smaller municipalities (fewer than 25 000 inhabitants). This is, to our knowledge, the first study outside of major urban centres.

Study objectives

Basing ourselves on the experience of field workers, we attempted to describe the population of the Laurentian region of Québec impacted by overcrowding and provide answers to certain questions. What is this population's epidemiological profile and how does it differ from that seen in studies of compulsive hoarding disorder or clinical studies involving voluntary patients (self-selecting sampling study)? Do the characteristics observed vary depending on patient age or municipality size?

Methods

Region studied

Covering a total area of 21,587 km², the Laurentian region was in 2016 home to 7.23% of the province's population, i.e., 589,400 inhabitants living in 76 municipalities. The region's five primary municipalities (Saint-Jérôme, Blainville, Mirabel, Saint-Eustache and Boisbriand) are located in the Lower Laurentians and are home to just over 40% of the total population. The section of the territory further to the North is mainly comprised of smaller municipalities (fewer than 15,000 inhabitants).

Population studied

A collaborative agreement on hoarding disorders and overcrowding was set into motion in five of the Laurentian region's seven RCMs. These five RCMs, representing over 19,500 km² and 406,175 inhabitants in 33 villages or municipalities, were included in the study.

During the course of the study, CLSC social workers or nurses visited the population being studied on at least one occasion, after which they logged cases of severe domestic squalor in the applicable records. Québec's CLSCs are public institutions that offer front-line health services and support (e.g., homecare services for an elderly or handicapped clientele). The information system used is the iCLSC, a provincial database that gathers information on health and social services as well as on the health and social services environment of the users to whom these services are delivered, thereby helping to ensure the quality and effectiveness of the health and social services offered to the population. Two codes were created to convey housing conditions, namely severe domestic squalor with diagnoses and severe domestic squalor with no diagnoses. These codes, however, are not associated with any clear-cut definitions. As a result, assessing the extent of the squalor is not systematic for all cases, nor can all workers proceed in the exact same manner. However, as soon as the cooperative agreements were introduced, workers received both training and tools (including the Environmental Cleanliness and Clutter Scale [ECCS] and the Clutter Image Rating [CIR]) (Halliday & Snowden, 2009; International OCD foundation) to help them develop a joint definition of severe domestic squalor and hoarding.

In our study, unlike the majority of published studies, housing issues were rarely the main reason for the visits that were conducted. In fact, workers' observations generally occurred during a home visit carried out for one of a number of reasons.

These home workers (nurses and social workers) mainly intervene in three primary sectors: mental health, homecare for persons experiencing a loss of autonomy and family, child and youth services.

Review of institution records

Records from the health centres in all five RCMs of the territory's local health and social services network (Antoine-Labelle, Des Sommets, Pays-d'en-Haut, Rivière-du-Nord and Thérèse-De Blainville) were reviewed. During the study period (2013 to 2016), workers logged in 161 cases of severe domestic squalor in iCLSC. Severe domestic squalor was also confirmed by the research team, based on the record contents, which included descriptions of accumulated items or garbage, a general lack of cleanliness and deficient maintenance, all of which had negative impacts on occupants. 25 of these records were rejected, six of them because the lack of cleanliness was caused by someone who was not a patient and eight because they failed to include a note regarding a problem of severe domestic squalor at a patient's home. The 11 other records were rejected because they were unavailable to us at the time of the review. All of the other records were looked at, and the relevant information gathered in a chart (template) in the Access database software. Our search for relevant information was facilitated by the clinical assessment forms filled out during home visits. The vast majority of patients were known to the healthcare network, and already had a record that included a note regarding 'severe squalor'. On average, a mention regarding cleanliness appears in a given record approximately three years after it is first created by the CLSC.

Following a descriptive phase, we proceeded to analyze our results based on the size of the municipalities where people resided when they were first taken in charge. To make a determination of what constitutes "rurality" for the purpose of our study, we adopted Health Canada's definition (Institut national de santé publique du Québec, 2004), which uses the term "urban" to define a municipality of over 10,000 inhabitants. Municipalities with fewer than 10,000 inhabitants are dubbed "rural" by extension.

We also separated all of the patients into two age groups, after which we proceeded to analyze the data. Numerous studies have addressed hoarding among people aged 65 years or more (Reyes-Ortiz, Burnett, Flores, Halpen & Bitondo Dyer, 2014; Roane D. M., Landers, Sherratt & Wilson, 2017; National association of professional geriatric care managers, 2010). We decided to check whether the data thus gathered also applied to a younger population. A threshold was established at 65 years, which is the age at which Quebecers are considered to have retired. The statistical test results provided were obtained by performing the Z test at a threshold of 0.5 with an Excel-based tool.

Conflict of interest

The authors report no conflicts of interest. Both authors certify their responsibility for all aspects of this work and manuscript.

Results

Origin of requests

The origin of the requests for services received by the health and social services centre (CISSS) is interesting. In nearly 20% of cases, situations of severe overcrowding and squalor are inadvertently discovered by a CLSC worker responding to a request for services. Another 14% or so of cases are discovered by fire department personnel conducting prevention visits and 10%, by urban planning department representatives. Requests for assistance from the persons themselves or their loved ones account for 20% of cases. When the patients themselves reach out, it generally ensues from being pressured (e.g., risk of eviction or municipal fines).

Demographics

The average age of the people who were observed to have a problem such as the one in question was 61.7 (median of 61). This is higher than the average age of the territory's population (41.9 years). (Table 1) The age of the persons involved when a case of severe domestic squalor is identified by workers (in other words, when the lack of cleanliness, etc. is noted in a record), varies between 18 and 92 years of age.

Table 1 Percentage of the population studied (under 65 years and 65 years or more)

<i>Age Group</i>	<i>% of the population studied</i>	<i>% population in the Laurentian region (Statistics Canada, 2017)</i>
< 65 years	55	82
≥ 65 years	45	18

Among the persons concerned, there are nearly as many men (n =65, 48%) as there are women (n=71, 52%). Most of these people live alone (68%). Minor children were noted in the home in 8% of cases. 53% of the people involved were tenants (renters), while renters only represent 20% of the total population of the territory being studied. (Statistics Canada, 2017) A third (32.5%) of the cases involved poor personal hygiene.

Animals were present in 45% of the cases, with the total number of animals ranging from one to 60 or so (average of 7.4, median of 2). Cats and dogs respectively accounted for 43% and 19% of all animals. Women (37, 60%) tended to have more animals than did men (24, 40%).

Related diagnoses

The list of sought-out diagnoses is based on prior studies (Snowdon, Halliday & Banerjee, Severe domestic squalor, 2012). All of the diagnoses deemed to contribute to the phenomenon of severe domestic squalor were recorded if and when mentioned in a given record (Table 2).

Table 2 Contributory diagnoses mentioned in the record (n=135)

<i>Diagnosis</i>	<i>Number</i>	<i>% (out of 135)</i>
Addiction (alcohol, drugs)	31	22.79
Other psychiatric disorder (anxiety, bipolar disease, schizophrenia, autism, ADD)	25	18.38
Compulsive hoarding disorder	24	17.65
Mobility disorder (severe osteoarthritis, obesity, paralysis, amputation)	22	16.18
Depression	19	13.97
Dementia	15	11.03
Neurological disorder	9	6.62
OCD (obsessive-compulsive disorder)	8	5.88
Personality disorder	8	5.88
Intellectual disability	6	4.41
Other (advanced-stage cancer, COPD, etc.)	6	4.41
Loss of autonomy	4	2.94
Visual disorder	3	2.21
Incontinence	2	1.47

Because compulsive hoarding disorder (TAC) is a recently diagnosed disease (DSM-V, 2013), we believe that it may have been underestimated in the various records. Furthermore, certain diagnoses are sometimes a cause or consequence of an underlying issue such as addiction or depression, with the result being that no distinction is made. It is also interesting to note that the neurological disorders observed included frontal lobe disorders (following a stroke), frontal lobe epilepsy and severe post-traumatic head injuries. The literature reveals organic causes of accumulation, particularly in relation to brain damage involving the ventromedial cortex, the prefrontal cortex and the anterior cingulate cortex as well as the subcortical limbic structures. (Mataix-Cols, Pertusa & Snowdon, 2011) Mobility disorders observed included severe osteoarthritis, obesity, paralysis and amputation of a limb. Around 19% of all cases had no major diagnoses mentioned in their record 45% of the records only had one diagnosis noted.

Interventions

When the records were reviewed in 2016-2017, 51% of the interventions had been completed, with the average duration of these being 448 days. Some of the follow-up initiatives were very short (< 7 days: 11%), while others dragged on (> 2 years: 20%). Notably, fewer than 8% of the cases came to an end because the objectives regarding overcrowding (and more specifically, an improvement in the housing unit conditions) had been reached (Table 3)

Table 3 Reasons for the end of the interventions

<i>Reasons for the end of the interventions</i>	<i>Number</i>	<i>% (n=70)</i>
Relocation	29	11.43
User's refusal to continue	26	37.14
Death	8	41.43
Objectives reached	6	8.57
Other	1	1.43

* The relocation category includes those users who moved as well as those transferred to long-term care facilities.

Health impacts

Astonishingly enough, there are no notes regarding health impacts in over 72% of cases. Falls are notably the number one impact on the health of patients, and were observed in 24% of the persons involved. Other impacts, likely more insidious, are not recorded.

Impacts on housing

The main consequences associated with housing are severe overcrowding and squalor, the loss of the use of certain rooms, fire hazards and odours. Close to 6% of all cases involved legal consequences such as a possible eviction or monetary fines (Table 4). We noted between one and six impacts per person, with the average being 2.2 per person.

Table 4 Impacts of accumulation and hoarding on housing units

<i>Impacts on the housing unit</i>	<i>(n=135)</i>	<i>%</i>
Overcrowding/squalor	80	59
Loss of the use of rooms	50	37
Fire hazards	41	30
Odours	27	20
Loss of sanitary services	15	11
Loss of plumbing/water services	14	10
Loss of furniture/appliances	14	10
Structural (building) problems	11	8
Eviction/relocation/fines	8	6
Loss of heating	6	4
Vermin	5	4
Loss of electrical power	2	1
Others (insects, mould, water damage)	25	19

Social repercussions

The social repercussions observed included isolation and disputes with building owners, family and neighbours. Social repercussions, and more specifically financial difficulties, are likely highly underestimated in this study, for nothing in this realm was noted in the medical records. (Table 5)

Table 5 Social repercussions of hoarding

<i>Social repercussions</i>	<i>(N=135)</i>	<i>%</i>
None	52	38.52
Family conflicts	19	14.07
Disputes with municipal authorities	4	2.96
Disputes with building owners	28	20.74
Fights with neighbours	16	11.85
Youth protection	3	2.22
Financial difficulties	3	2.22
Eviction	5	3.70
Isolation	32	23.70
Others (curatorship, refusal of homecare services/treatment)	7	5.19

Analysis based on municipality size

We studied the 136 cases based on the size of their respective municipalities. The 33 municipalities identified were grouped into three categories based on number of inhabitants, i.e., < 10,000 inhabitants, between 10,000 and 25,000 inhabitants and $\geq 25,000$ inhabitants (Table 6). The incidence of reported cases is greater in the smaller municipalities ($p < 0.5$).

Table 6 Data by municipality size between municipalities with > 25,000 and those with < 10,000

	> 25,000	10,000- 25,000	< 10,000	Total
Total number of cases	64	35	37	136
Number of municipalities	5	8	20	33
Total population	238,420	109,276	58,479	406,175
Incidence (number of cases/1,000 population) *	0.26/1,000	0.32/1,000	0.63/1,000	3.3/1,000
% men/total	42%	45%	59%	47%
Average age	61.7	61.9	61	
Number of partners or workers	1 (35%)	1 (44%)	None (45%)	
% owners/total	40%	37%	44%	44%
% of animals/total *	57%	65%	78%	65%
Primary origin of requests	Police (19%)	Fire department (22%)	Inadvertent discovery (23%) Family/friends/neighbours (23%)	136
Social repercussions	Conflicts with owners (30.7%)	Conflicts with owners (29.4%)	Isolation (40%)	

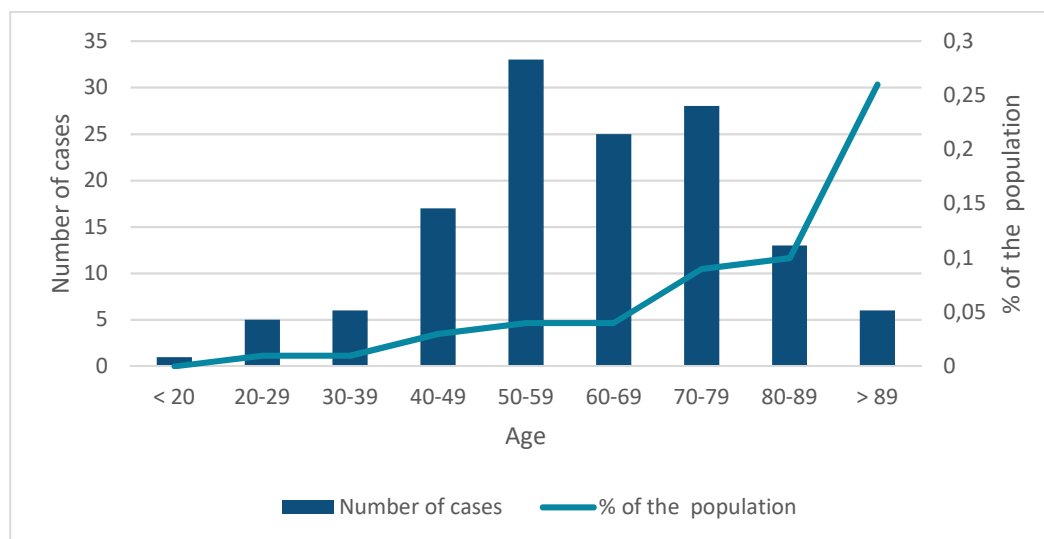
Also, there are a slightly larger number of women in urban environments and men in rural environments who find themselves in situations of severe domestic squalor. We also observed that the records for cases observed in smaller municipalities list very few partners. This could be due to one of two things: a lack of available municipal workers or other parties, or a stronger social fabric with an ensuing drop in the need for outside workers.

It was not overly surprising to observe that there were more animals in rural environments ($p < 0.05$). In larger cities, police officers or fire department representatives tasked with prevention visits are often the first ones to discover overcrowding/squalor situations. As for smaller municipalities, these types of situations are generally reported by friends, family members or neighbours. This reality meshes with the prevalence of larger social issues and conflicts in urban settings and the increased number of persons suffering from isolation in smaller municipalities.

Analysis based on age

In this analysis, the age of the person involved when severe domestic squalor was first noted in a record was used as a characteristic. Some people, in fact, had a record with the CLSC that dated back several years yet included no mention of severe domestic squalor. The age frequency curve specifically emphasizes two separate age groups, namely people aged 50 to 59 years and those aged 70 to 79 years. However, the percentage of persons studied compared to the total number of inhabitants of the region in 2016 (reference year) increased along with age, ranging from 0.01% among persons aged 20 to 29 to 0.26% among those over 90 years of age (Figure 1). (Statistics Canada, 2017)

Figure 1 Age at the time of the first visit, by number of cases and as a percentage of the total population



We proceeded to analyze several other elements that proved to be non-statistically significant, with the exception of the most frequent diagnosis (Table 7).

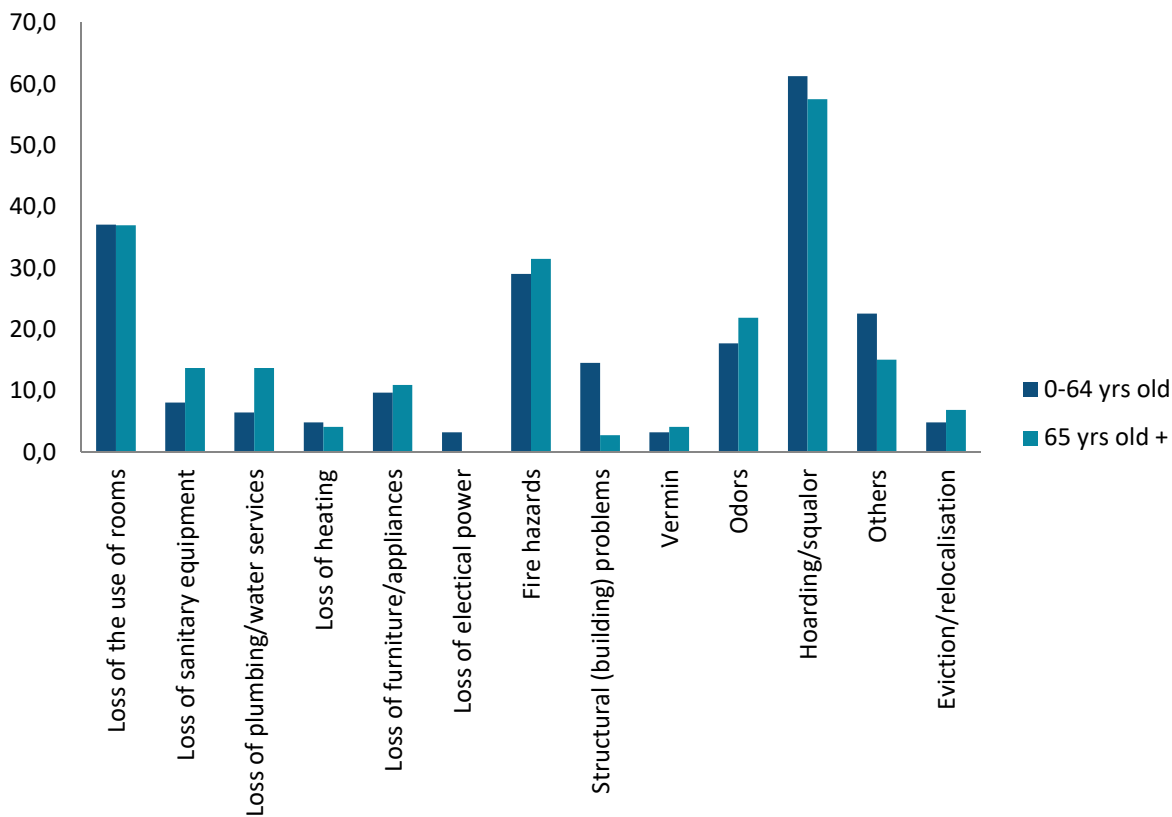
Table 7 Data analysis by age group

	<i>< 65 years old</i>	<i>≥ 65 years old</i>
Number of cases	74	60
Number of cases/10,000 h (2016)	1.52	5.84
Self-neglect	23 (31%)	20 (33%)
Most frequent diagnosis	Compulsive hoarding disorder (23.3%)*	Dementia (22.9%)*
Most frequent health impact	Falls (76%)	Falls (76%)
Fire hazards	29%	31.5%
Loss of sanitary services	8.1	13.7

*P < 0.05

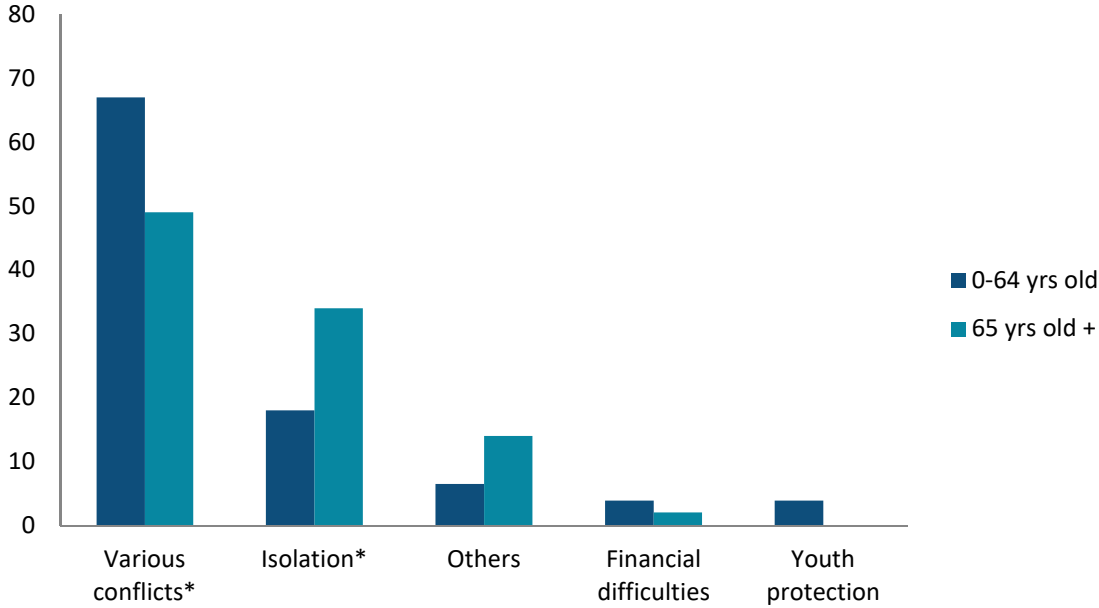
The impacts on housing are more significant among persons aged over 65 years. And despite a similar result for loss of the use of certain rooms for both groups, there are more sanitary and plumbing issues (Figure 2) ($P < 0.05$). It is reasonable to assume that those problems that last the longest will have the most significant impacts on housing units.

Figure 2 Impacts on the housing unit by age group compared to the total per age group (%)



There is also a difference in the social repercussions between the two age groups. Younger people will be involved in more conflicts or disputes, while those who are older will find themselves increasingly isolated ($p < 0.05$). (Figure 3)

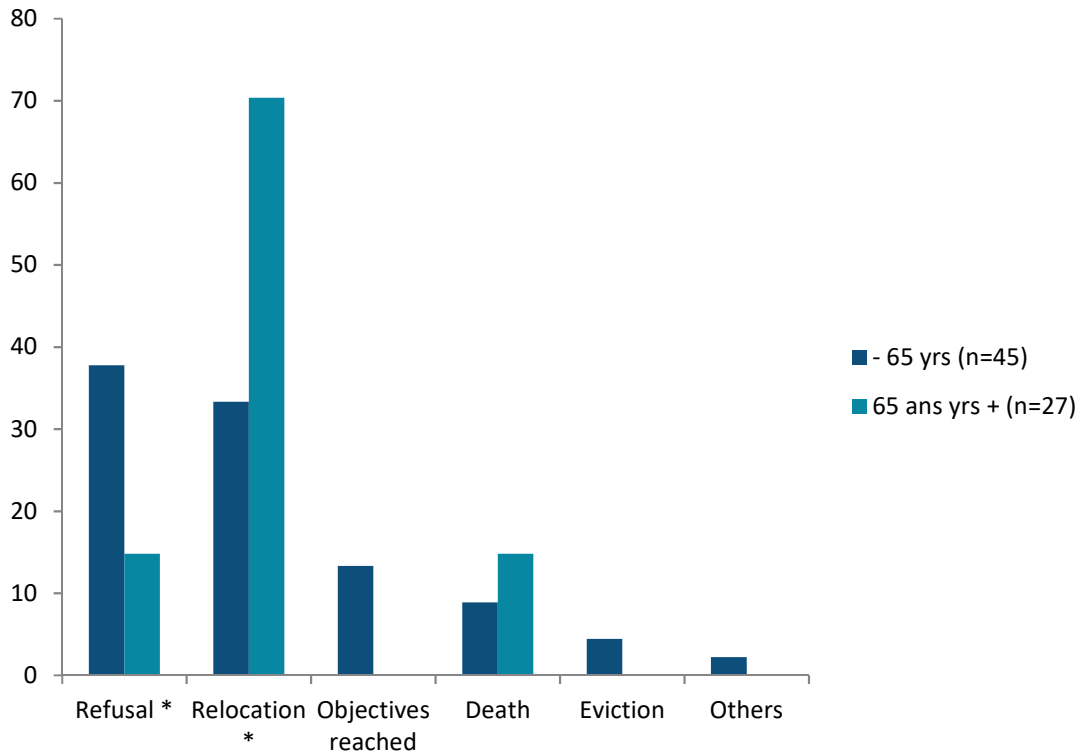
Figure 3 Social repercussions by age group (%) * $p < 0.05$



Younger people will be more likely to refuse any available or offered help, while those who are older will most often move or be transferred to another living environment. It also appears to be easier to resolve overcrowding issues with a younger clientele (Figure 4).

Figure 4 Reason for the end of follow-up according to age group/number of respondents (%)

* p < 0.05



Discussion

Our study includes all of the patients with a record describing a housing situation deemed to constitute hoarding/severe domestic squalor. Hence, all situations involving hoarding/squalor observed by field workers, regardless of whether or not there was a diagnosis. This is the same method as that adopted in other studies (Bodryzlova & O'Connor, 2018; Monfort, Devouche, Wong, Pean & Hugonot-Diener, 2017). This portrait of the population is distinct from those in other studies that solely address hoarding in a geriatric or psychiatric setting, or studies based on self-selecting sampling. (Roane D. , Landers, Sherratt & Wilson, 2017) The various diagnoses uncovered and the wide scope of age groups involved provided us with a better portrait of the overall situation with regard to lack of cleanliness/squalor.

We observed that lack of cleanliness can manifest itself at any age. The average age of 61.7 years for the first note of squalor in a record is consistent with the findings of prior studies, which illustrated that the symptoms emanating from hoarding behaviour usually intensified between the ages of 50 and 60 (Dozier, Porter & Ayers, 2016). We also noted a higher prevalence, i.e., 7.3%, among the over 65-year-old group, a finding that tallies with what Samuels et al. demonstrated among persons aged 55 to 94 years (prevalence of 6.2%). (Samuels et al., 2008)

The presence of children (8%) in these environments is especially of concern, as it can presage developmental issues as they grow older (Park, Lewin & Storch, 2014). Youth protection must often step in with the parents, as was the case for 2.2% of the persons studied.

The elevated percentage of tenants (renters) flagged in our study indicates that hoarding issues are more prevalent in this group than they are among homeowners, despite the fact that they only constitute 20% of the Laurentian region's population. This could very well be due to the simple fact that because they rent, these persons have 'close' neighbours who are more likely to file a complaint. In the region, owners usually live in single-family homes, whereas renters generally make their home in housing units with multiple apartments, in the larger cities.

Since our study included everyone identified as having an issue with hoarding/squalor, this could well explain our high addiction rate (alcohol and drugs). Among these groups, it is not unusual to observe accumulation and messiness, but in an environment characterized by a lack of hoarding, i.e., the desire to accumulate and the fear of having to give up various items. The cleaning required is thus much simpler. The study by Lee et al. discovered a significant difference in the incidence of problems associated with alcohol among people at grips with squalor and those in situations characterized by both hoarding and squalor (Lee, Lewis, Leighton, Harris, Long & Macfarlane, 2017). This difference was not apparent in all of the studies conducted. (Nordsletten et al., 2013). Numerous studies drew a link between hoarding and addiction. (Samuels et al., 2008) At present, circumstances do not allow us to establish a causal link between the two.

In most of the studies conducted, there are vast discrepancies between the percentages of diagnoses of depression associated with hoarding situations. Based on how information is sought out (provided by the patient, culled from questionnaires or obtained via formal diagnoses) and depending on whether prevalence is considered over one's lifetime or at the time of the assessment, the literature puts forth percentages of 11% to 63% as regards associated depression. (Frost & Steketee, 2014; Snowdon & Halliday, 2011; Metropolitan Boston housing partnership, 2015) While our study generated a rate of 14%, it bears noting that we only looked at the active diagnosis in a given record at the time of the initial assessment. A percentage that is nonetheless higher than that for Quebecers aged 15 years or more; 4.4% of people confirmed having experienced an episode of depression over the past 12 months. (Baraldi, Joubert & Bordeleau, 2015)

As is the case with many other studies, we found numerous instances of isolation and interpersonal conflicts in the various records.

Other studies revealed financial difficulties that were much wider in scope than those in our assessment (Nordsletten et al., 2013). The information was likely underestimated, as supported by the likelihood that moderate financial difficulties are rarely alluded to in Québec medical records.

Our data allude to an evolution in hoarding problems, much as suggested by various studies (Dozier, Porter & Ayers, 2016; Tolin, Meunier, Frost & Steketee, 2010). Persons aged less than 65 years have more conflicts or disputes, which may lead to their remaining isolated. In turn, the problems associated with housing, such as sanitary and plumbing issues, likely worsen over time and are thus more of an issue with the 65 and over age group.

The problem of severe domestic squalor is pretty much the same regardless of municipality size. This issue is thus not specific to the larger zones in our region; in fact, there are proportionally more cases in rural rather than in urban areas. Could this be because people seek to avoid conflict through isolation?

The needs of these persons are similar. Yet, it is easy to understand that smaller municipalities face particular challenges, such as a lack of staff and experience in these specific situations. The intervention protocols established and implemented in larger cities can thus serve as a reference for smaller municipalities, as long as they are adapted to available local resources.

But while their needs may be the same, the consequences vary. Generally speaking, inhabitants of the Laurentian region of Québec who live in smaller municipalities are mostly homeowner, which has the effect of exacerbating the degree to which they are isolated. In the territory's larger cities, however, the situation is inverted, with people tending to rent housing units, which can lead to exacerbated social tensions. A renter with such an issue who resides in an apartment building is more likely to go unnoticed than a homeowner who lives in a single-family house.

Strengths and limitations of the study

This study's primary strength is also its main weakness. In conducting this study, we included all instances of severe domestic squalor identified by social or healthcare workers who were visiting people in their homes. We were thus able to identify a range of manifestations and diagnoses. These data, however, do not provide us with information specific to a particular diagnosis such as hoarding. It nonetheless better illustrates what various workers, among them municipal employees, firemen and medical personnel, observe while in the field.

The criteria used by workers to identify cases of hoarding/squalor were not clearly defined, which led to a selection bias that is indicative of a real variability in the management of complaints by municipalities and workers. (Lauster, McKay, Kwok, Yip & Woody, 2016)

The diagnoses observed were not even necessarily made by doctors; various psychosocial workers wrote up diagnoses based on patient statements and their knowledge of a given case. We can easily surmise, among others, that some diagnoses (e.g., addiction and compulsive hoarding disorder) were recorded without a formal medical assessment. The low rate of compulsive hoarding disorder diagnoses (17.7%) could be due to this diagnosis' recent addition to the DSM-V as well as the fact that few patients confide in their doctor about their home situation. It is also important to note that not all people with a compulsive hoarding disorder live in a situation of severe squalor (Snowdon, Halliday & Banerjee, Severe domestic squalor, 2012).

Conclusion

The epidemiological profile of the population of the Laurentian region impacted by overcrowding is in line with that described elsewhere.

The differences in cases of severe squalor in urban and rural environments lead to differences in terms of the incidence of reported cases, the presence of animals and various impacts. The municipal management of these cases in rural settings often calls for services that are essentially unavailable. Handling cases by calling upon multiple disciplines, however, continues to be possible. Agreement templates conceived in large municipalities such as Ottawa and Boston (Metropolitan Boston housing partnership, 2015; The Ottawa Community Response to Hoarding Coalition, 2006) are still relevant and can be adapted based on the available resources in a given region. In such instances, agreements, much as they do in large municipalities, make it easier to identify available resources. This study also aptly illustrates the difference between the real-life circumstances of people aged 65 years or less and those over 65 years of age as regards diagnoses and their impacts. A longitudinal study would need to be carried out to discern whether or not there have been any changes or if the issue is due to having two separate age groups.

This work was conducted retrospectively from data obtained for clinical purposes. The protocol was approved by research ethics committee.

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