



Sustainable Prevention and Work Environment

# Studies and Research Projects



REPORT R-881



## **Development of a Support Approach for 911 Call Centre Work with a View to Preventing Musculoskeletal Disorders and Psychological Health Problems**

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**PEER REVIEW**

In compliance with IRSST policy, the research results published in this document have been peer-reviewed.

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## ABSTRACT

This study is a continuation of previous research projects aimed at reducing the psychosocial risks associated with musculoskeletal disorders and psychological problems among 911 call centre agents. More specifically, it is based on the results of the previous study (Toulouse et al., 2011), which suggest that agents in difficult call situations require better support. The study found that call processing difficulties cause an increase in workload, as well as in cognitive or emotional strain, which in turn are correlated to an increase in neck and shoulder pain intensity, while lower back pain was found to escalate with an increase in negative emotions. Call handling difficulties stem from communication problems—inherent to the work of emergency call agents—that complicate the application of procedures used to determine whether to send first responders to the location. Support mechanisms are needed to help agents develop and maintain the skills that will enable them to do their jobs effectively while preserving their health. It is therefore essential to understand the practices currently in use in order to propose an approach aimed at improving them. To this end, interviews were held with managers, trainers and call agents in 10 emergency call centres. Interviewees were asked about the existing support system for dealing with situations such as arrogant callers, callers in crisis, callers with mental health issues or suicidal tendencies, calls where the degree of urgency is uncertain, calls where the agent has to serve as an intermediary between a citizen and the police during a crime, exposure to dramatic situations, and dispatching for major emergency events. They were also asked what improvements they would like to see in the support system.

The results are summarized in Appendix B. For each difficult call situation, a summary sheet describes the nature of the problem, the call processing instructions and strategies, the main observations and the improvements needed. The main problems stated by the agents were as follows:

- Difficulty taking control of the call and getting information from the caller;
- Difficulty determining a line of inquiry considering the state of the caller, which can be difficult to ascertain, and considering the wide range of possible caller reactions;
- The risk of failing to detect an urgent situation, or of mobilizing police officers for no good reason;
- The risk of conflict with a dissatisfied caller;
- The stress of holding a lengthy conversation with a caller who threatens to commit suicide;
- The stress of sustained attentiveness and uncertainty when the agent has to serve as an intermediary between a caller and the police during a criminal act;
- Difficulty controlling one's emotions when faced with a dramatic emergency situation or an arrogant caller.

To manage these difficulties, agents develop skills by relying on the procedures and practices implemented at their workplace. This is because the initial training for dealing with difficult call situations is minimal, often limited to listing off a few instructions. Some efforts have nevertheless been made in 911 call centres to offer employee support in the form of continuing professional education. Call agents are interested in these training sessions, especially when they

include information about intervention methods, such as those used by the police. However, the sessions often have content that is too general, that doesn't provide adequate solutions to problems, or that doesn't meet the specific needs of call centre agents. The call centre team leader seems to play a key role in facilitating support within the team. The support role is not always clearly defined, however, and team leaders are not trained in this area.

To improve support for difficult call situations, a cooperative approach is proposed whereby occupational expertise can be collaboratively compiled. The objective of this approach is to form a cooperative training network for 911 call centres. The approach consists of six steps, the first of which is to set up a network coordination committee. Interested centres would work together to develop and share training content on difficult call situations, including the support role played by team leaders. Each centre would establish a working group tasked with designing training content about a specific situation. The working group would be composed of a network coordinator and two or three experienced agents. If necessary, the group could seek the expertise of a specialist in the field. The training content would then be presented and discussed by the centre personnel, and then in the other participating centres so it could be adapted to each particular context. In addition to developing a training program with a curriculum that is relevant to the work of emergency call centre agents, this approach will lead to increased recognition of the professional skills needed for the job and of the human beings behind the job title. This recognition will translate into protective and preventive measures for employee health, as has been demonstrated in various studies in the field (Dejours, 2000, 2009; Vézina et al., 2011).



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## 1. INTRODUCTION

Our previous studies conducted in 911 emergency call centres enabled us to identify how psychosocial risks, and especially cognitive and emotional strain, contribute to musculoskeletal disorders and psychological health problems (Toulouse et al., 2006; Toulouse et al., 2011). These risks are particularly high in situations where agents are experiencing difficulties communicating and making decisions due to the dramatic intensity of an emergency call. To help 911 call centres mitigate these risks, we saw that it was necessary to take stock of the support tools available to agents dealing with difficult call situations. This report consists of a description of participating 911 call centres, a review of the previous research that led to this project, an overview of recent changes in the sector, our research goals, the methodology used, the results, our main findings, and an proposal for a cooperative approach aimed at co-construction of occupational expertise.

### 1.1 911 emergency call centres in Québec

In Québec and throughout North America, first responder services are generally accessible to citizens via a single number: 911. 911 emergency call centres are tasked with responding to calls from people in distress, determining the nature of reported emergencies and directing calls to the appropriate emergency service providers (police services, firefighters, paramedics, etc.). In Québec, responsibility for providing 911 services falls on the municipalities; the province has approximately 36 emergency call centres covering its inhabited areas. Most of these centres are administered by municipal police services, while the rest are run by regional not-for-profit organizations, regional county municipalities or private companies. Their workforces range in size from ten employees to over two hundred. According to the *Civil Protection Act*, “In order to respond to emergency calls in its territory, every local municipality, unless it is a northern village, must ensure the provision of services by a 9-1-1 emergency centre that has obtained a certificate of compliance,” and must provide funding for that centre. Previous studies have been conducted on 911 call centres under municipal police jurisdiction. In addition to taking 911 calls, they are also responsible for dispatching calls to the appropriate emergency services (police, firefighters, public works), conducting video surveillance, updating information records and providing reception services at police stations. Ambulance dispatching services are generally the responsibility of secondary centres—more specifically, of health communication centres governed by the *Act Respecting Pre-hospital Emergency Services*.

Dispatching entails relaying information about reported emergencies to the first responders concerned (mainly police and firefighters), including details about call priority and information required to ensure intervention efficacy and responder safety. Call handling and dispatching can be conducted at the same workstation or at different workstations, depending on the size of the call centre. When these tasks are carried out at separate workstations, call agents generally rotate between the workstations, which are equipped with computers and telecommunications systems on different screens and devices (telephone, radio) and using several software interfaces (telephone, mapping, databases, etc.).

Agents working at 911 call centres administered by municipal police services are civilian employees and municipal white-collar workers. Their immediate superior is also a civilian. The minimum job requirements are a secondary school diploma and knowledge of both French and

English. Qualified candidates must undergo a full medical exam to ensure that they are capable of doing the job—more specifically, they are examined for visual and aural acuity, psychological stability and tolerance to stress. While training is offered at two CEGEP vocational colleges, employees are generally trained onsite at the call centres. Training lasts from four to six weeks and is both theoretical and practical. Recent regulations require agents to spend at least two days per year in ongoing training.

## **1.2 Overview of previous studies**

The first study (Toulouse et al., 2006),<sup>1</sup> revealed a high prevalence of musculoskeletal disorders (MSDs), psychological distress, occupational burnout and physical and psychosocial risk factors (demand/decision latitude, effort/recognition, lack of support). More specifically, high levels of psychological distress and occupational burnout were associated with pain in the neck and the upper and lower back; psychological distress was also connected to shoulder pain. These results echoed the conclusions of various studies conducted in call centres (Baker et al., 2003; Chevalier et al., 2011; Ferreira, 2002; Hannan et al., 2005; Holte et al., 2002; Jensen, 2002; Kjellberg, 2010; Lin et al., 2009; Norman, 2004). As a result of this first study, office renovations in 911 call centres added sit-stand workstations and other modifications aiming to reduce physical risks. The psychosocial risks remained to be addressed.

The second study aimed to describe how these risks manifested in a workplace context, and to identify possible courses of action. It used a multidisciplinary approach combining physiological, ergonomic and psychodynamic work studies. The results showed that high stress in experienced call agents cause a major loss of heart rate variability (HRV), and that this variability loss is completely reversed after the work shift ends (Toulouse et al., 2011).<sup>2</sup> The stress produced by high levels of psychosocial risk was analyzed through the lens of workload (number of calls and of tasks to be completed in a given period), cognitive workload (the complexity of calls handled) and emotional and psychological workload. Higher perceived levels of workload and call complexity were correlated with increased intensity of pain in the neck and shoulders, while lower back pain was found to increase with an escalation in negative emotion. Increased workload, cognitive workload or emotional workload is closely linked to difficulties in handling dramatic calls in emergency situations. Call agents often deal with communication problems that make it difficult to apply standardized procedures for sending first responders to the location. These communication problems are inherent to the work requirements of call agents responding to the emergencies described in the study and validated with the follow-up committee. Support measures must be put into place to help agents develop and maintain skills that allow them to work effectively while safeguarding their health.

1. The first work requirement is related to sending responders quickly to the event location. Call agents report various obstacles to overcome:
  - a. Difficulties understanding and being understood in the case of callers in crisis, callers with mental health issues, or arrogant or drunk callers;
  - b. Geolocation difficulties with callers using cell phones;

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<sup>1</sup> <http://www.irsst.qc.ca/media/documents/PubIRSST/R-472.pdf>

<sup>2</sup> <http://www.irsst.qc.ca/media/documents/PubIRSST/R-720.pdf>

- c. Decision-making problems related to dispatching and assigning call priority due to the grey zone that exists between civil law and criminal law, or due to an uncertain level of urgency for sending first responders;
  - d. Difficulties getting pertinent information, given the wide variety of emergencies that require agents to have extensive knowledge of what questions to ask and what research to conduct.
2. The second work requirement is related to the effort agents must expend to control their emotions when provoked by caller behaviour or by the dramatic intensity of the situation:
    - a. Callers whose arrogance or rudeness may be indicative of a state of crisis caused by an emergency situation, a mental health problem, frustration or contempt;
    - b. Exposure to dramatic emergency situations that may affect the agent emotionally.
  3. The third work requirement is related to pressure associated with tasks outside the usual duties of handling and dispatching calls:
    - a. Maintaining communication with a suicidal caller, a victim, or a witness in a dramatic situation as they wait for first responders to arrive;
    - b. Serving as an intermediary between a caller and the police during a criminal act such as a barricaded person in crisis or a hostage-taking situation;
    - c. Dispatching for major emergencies, which are relatively rare but result in a surge of calls and require the mobilization of numerous first responders.

The work team was the most-cited means of support in the previous study, due to its ability to provide mutual aid. This type of informal support takes the form of colleagues listening to each other, sharing their experiences and using humour; in fact, humour plays an important role in agent support (St-Arnaud et al., 2010). However, this support depends on various conditions that influence work practices, including good relationships among team members, rates of incoming calls, and varying amounts of administrative work affecting the amount of time agents have to talk among themselves about managing difficult calls. Furthermore, while exchanges among colleagues are extremely important, they don't provide any external perspectives that would expose agents to other methods or opinions that may be more effective than those within the work team or call centre. Agents express a need for this type of perspective by requesting training to help them deal with difficult call situations that increase their cognitive and emotional workload. Having to maintain communication with a caller threatening to commit suicide or with a mental health problem is an example of a difficult call. With this in mind, some centres have taken the initiative to organize training sessions. However, these initiatives are isolated, and no information is collected to establish a clear picture that would help 911 call centres formulate specific support methods to facilitate difficult call management.

### **1.3 Recent changes to the 911 emergency call centre sector**

Recent changes made to the 911 emergency call centre sector have made it especially important right now to take stock of the support available to agents handling difficult calls. Recently adopted legislation and regulations are forcing the sector to restructure, and to take steps to meet new requirements. Two recently established organizations have contributed to this restructuring: the Municipal Finance and Development Agency for Emergency 9-1-1 Call Centres in Québec (called the Agency) and the 911 Team of the federal Department of Public Safety.

Created in 2009, the Agency is mainly responsible for collecting and administering revenues to finance the costs of 911 call centres. It also advises and informs the centres on standards of quality and best practices, conducts technological monitoring and finances various related activities and research. It has established a human resources sub-committee to address the issue of training agents to handle emergency calls.

The *Act to amend various legislative provisions regarding municipal affairs* and the *Regulation respecting standards*<sup>3</sup> both came into force in 2008. As a result, the 911 Team of the federal Department of Public Safety was given the mandate to implement legal provisions and regulations governing 911 emergency centres and certain secondary call centres, and to ensure their correct evolution and organization within the sector. Among these provisions is the requirement to train agents to handle difficult situations (O.C. 1042-2010, Chapter V, Division II – Training).

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<sup>3</sup> *Regulation respecting standards, specifications and quality criteria applicable to 9-1-1 emergency centres and to certain secondary emergency call centres.*

## **2. STUDY OBJECTIVES**

### **2.1 General objective**

To help develop a support approach for agents handling and dispatching difficult calls, with a view to preventing musculoskeletal disorders and psychological health problems.

### **2.2 Specific objectives**

1- To find out which existing practices are likely to support agents in their task of handling and dispatching difficult emergency calls and to identify necessary improvements.

2- To propose an approach to develop training that prepares and supports agents who handle and dispatch for difficult call situations.



### **3. METHODOLOGY**

Our methodology is based on an active research process through which main stakeholders are invited to participate as part of the follow-up committee.

#### **3.1 Composition and role of the follow-up committee**

The follow-up committee is composed of representatives from industry organizations and 911 call centres: an advisor from the Association paritaire pour la santé et la sécurité du travail secteur des affaires municipales (APSAM), the Director General of the Municipal Finance and Development Agency for Emergency 911 Call Centres, the supervisor and head of the 911 Team of the federal Department of Public Safety, a representative from the Association des centres d'urgence du Québec (ACUQ), a representative from the École nationale de police du Québec, call agent supervisors and representatives from five 911 call centres that participated in previous research, the research team, and a knowledge transfer advisor from the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST).

The present project was planned and carried out by the follow-up committee over the course of four meetings. The first two were held to design the project: using the results of the previous study (Toulouse et al., 2011), the committee determined which difficult call situations to focus on, which 911 call centres to recruit, whom to interview and what questions to ask in the interviews. The purpose of the third meeting was to report on the progress of the research, while the fourth meeting was held to read over and validate the present report. Between the third and fourth meetings, committee members held an additional meeting to review the study results with the participating call centres.

#### **3.2 Compiling current support practices for agents handling difficult call situations**

##### ***3.2.1 Selection of call centres and interview subjects***

Data was collected from 10 emergency centres: nine of the 36 functioning 911 call centres in Québec (one of which also acts as a secondary health communication centre), and one establishment acting exclusively as a health communication centre. The centres were selected for their reputations for providing active support to agents handling difficult call situations. They were identified from a list of 11 centres compiled by the 911 Team of the Department of Public Safety, who had visited all the centres to carry out accreditation audits. Two of the centres on the list declined to participate in the study due to difficulties making staff available for the interviews. The secondary health communication centre was included in the research because its manager, who is on the follow-up committee, wished to participate in the study. In addition, working with a secondary health communication centre allowed the researchers to determine whether the support mechanisms developed in the context of pre-hospital emergency services could be useful when transferred to 911 call centres.

In each of the call centres, interviews were held with the centre manager, the training manager and two volunteer call agents who had received training in the selected types of difficult calls. Volunteer recruitment was conducted so as to ensure that the interviewees were representative of

the centre in terms of gender and years of experience. We also made sure that some of the selected volunteers were team leaders.

### **3.2.2 Interviews and analysis**

In each of the centres, interviews were conducted with stakeholders involved in providing support to agents handling difficult calls. They included centre managers, trainers, team leaders and agents. Two members of the research team met with each interviewee individually, during work hours, in a closed room, to hold semi-structured interviews during the first half of 2013. The 90-minute interviews were recorded.

During the interviews, participants were first asked to introduce themselves and describe their career path. Researchers then asked them to talk about the means of support available to agents handling difficult calls, keeping in mind the interviewee's position and duties. The interviews addressed the themes of recruitment, new employee training, ongoing training, work procedures, operational management of difficult calls, follow-up procedures after difficult calls, co-worker support, the role of the team leader, and desired improvements. The interview chart, which was composed by the researchers and approved by the follow-up committee, is included in Appendix A.

The difficult calls addressed in the interviews fell into the following categories: arrogant callers, suicidal callers, callers in crisis, callers with mental health issues, calls where the degree of urgency is uncertain, calls where the agent has to serve as an intermediary between a citizen and the police, emergency situations that trigger major emotional strain, and dispatching for a rare major emergency event.

The interviews were recorded, and for each interview one of the researchers produced a summary based on topics related to support provided in each category of difficult call situations. Another team member then listened to the recorded interview and reviewed the summary. This review process aimed to ensure that the summary was an accurate representation of the recorded interview. The process revealed no particular difficulty in understanding the recorded dialogue. The data was validated in a meeting with the interviewees to review the interview outcomes. Results are presented as a compilation of the summary sheet contents, with the following themes: 1) Problems encountered, 2) Communication strategies or instructions, 3) Call handling strategies or instructions, 4) Main findings on the support currently available (with a focus on training), and 5) Desired improvements. As the role of team leader was mentioned many times, it was given a separate sheet (#9). These sheets are used to facilitate communication of results; they present the information gathered in the 10 emergency call centres from all of the interviewees. They do not distinguish between the formal instructions associated with a given task and the strategies used by call agents on their own initiative. In fact, instructions for managing difficult calls are rarely standardized, outside of the necessity to follow courtesy and politeness rules associated with customer service. Therefore, the strategies that call agents must develop to manage difficult calls don't necessarily contradict the stipulated instructions. They are the results of agent initiatives to find solutions to the problems they encounter when handling emergency calls. The need to support these initiatives is, in fact, the subject of this study.

All interview participants were invited to a meeting to review interview outcomes with the follow-up committee. The summary sheets were presented and discussed at this meeting, which was attended by interviewees from eight of the 10 emergency call centres.

The sheets were presented to and evaluated by everyone at the meeting. Municipal public safety call centre managers and agents were particularly helpful in confirming their relevance. Some differences existed among the centres, but generally, the participants found that the summary sheets were an accurate representation of their tasks and of the difficulties they face; no modification was requested.

### **3.3 Proposed approach to developing supportive training for difficult call situations**

Our approach to developing supportive training for difficult call situations is founded on three main points. Firstly, it draws on the main findings from the summary sheets, which were validated during the review meeting. Secondly, it is based on a knowledge-based process of intervention when psychological health problems at work are related to work practices, especially in field of emergency response. Thirdly, it is based on discussions with stakeholders during the review meeting, and subsequent discussions with the follow-up committee.

During the review meeting, participants discussed expertise co-construction, addressing its implementation as well as the follow-up to be conducted for the present study, which is the IRSST's final research on this theme. Due to general interest in the approach, the follow-up committee decided to continue holding meetings after the present report was written. These continued meetings would ensure that the approach was put into practice, as is encouraged by the new regulations increasing the training hours for call agents and the establishment of new provincial organizations such as the 911 Agency and the federal Department of Public Safety 911 Team.



## **4. RESULTS**

### **4.1 Study participants**

#### ***4.1.1 Emergency call centres***

Various sizes of emergency call centres participated in the study: the smallest employed 25 permanent call agents, while the largest employed over 100. The study did not include small emergency centres located in remote areas.

The employees work 12-hour shifts at two of the centres; at all the other participating centres, work shifts were eight or nine hours long.

Management structure varied from centre to centre. Four centres had managers who acted as department or unit heads and who supervised the work teams. In the other centres, a single manager, called the coordinator or director, was in charge of the entire centre. Management tasks were delegated to full-time or part-time agents exempted from other tasks, or to the team leader.

The status of the person in charge of training varied from one centre to the next. This person could be a manager, an employee or a call agent exempted from other tasks to take on training management either full-time or periodically. Similarly, quality control was conducted by a manager in some centres and by a call agent assigned to the task in others.

Team meetings were planned during periods of shift overlap, or every X weeks, depending on the centre. These meetings took place sometimes at every shift, sometimes at the end of a shift cycle. They varied in duration from 15 minutes to 1 hour and took place at either the beginning or the end of a shift.

#### ***4.1.2 Interviewees***

A total of 43 people were interviewed (Table 1). One of the centres had teams working in two different buildings, and therefore had two different managers, bringing the total number of managers interviewed to 11. Managers responsible for training or quality control at four centres were interviewed, as well as training officers from seven centres. In addition, six team leaders and 15 call agents participated in the interviews.

The interviews were conducted during work hours. The gender balance of the interviewees was fairly evenly divided, as in the previous studies. Most of the call agents interviewed were fairly experienced, with an average of 12 years of experience. Experience ranged from 2 to 24 years. It is important to mention that the department or unit heads and the training managers had all previously worked as call agents. The team leaders also performed call agent work to some extent, depending on the centre and the call frequency.

**Table 1: Distribution of interviewees according to function**

Interviewees <i>Function</i>	Sex			Years of experience		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
Call centre manager	6	5	11	7.5	1.5	20
Other management	1	3	4	3.5	2	10
Training manager	3	4	7	6.2	1	10
Team leader	3	3	6	6.3	1	10
Call agent	8	7	15	12.7	2	24
Total	21	22	43	-	-	-

## 4.2 Review of support currently available to agents handling difficult call situations

The support currently available to agents handling difficult call situations is examined from three perspectives: 1) during the call, 2) after the call and 3) support organization in general.

### 4.2.1 Support during a difficult call

The support available during a difficult call is examined in terms of the complexity of the communication, which is based on three types of situations: 1) obtaining information from the caller and handling call dispatching, 2) maintaining communication with the caller until first responders arrive and 3) serving as an intermediary between the citizen and the police.

#### 4.2.1.1 Obtaining information and dispatching calls

Agents report being confronted with two types of difficult situations when dispatching calls.

The first is related to relational or cognitive communication problems with the caller that impede the agent's ability to quickly determine the nature and priority of the emergency.

The second pertains to difficulties making dispatching decisions when the emergency request is in a grey area between civil law and criminal law.

##### 4.2.1.1.1 Relational or cognitive problems when handling 911 calls (summary sheets 1, 2 and 3)

#### Description of the problem

The main objectives of 911 emergency call centre agents are to determine as quickly as possible the address of the event and the nature and priority of the emergency, while simultaneously ensuring the safety of the caller and obtaining information to ensure the efficacy and safety of the first responders. This assumes complete cooperation with the caller—which is not always the case, depending on the caller's mental and emotional state. The caller may be in distress as the victim or witness of a dramatic event; in a state of confusion related to mental health problems, speech impediments, or psychoactive substance use; frustrated from having been in an accident or simply rude. These difficulties are expressed in various ways: yelling, crying, confusion, lack

of response to the agent's questions, excessive talking, incoherence, difficulty expressing their exact location, arrogance, aggressiveness, etc. Agents must know how to react to resolve these situations; they must develop skills that allow them to obtain the cooperation of the difficult caller as quickly as possible, to receive help if needed, and to make the best decision in light of the circumstances.

### **Developing skills to obtain cooperation from a difficult caller**

Communicating with difficult callers is rarely discussed during initial agent training. The subject is often limited to listing politeness rules based on customer service guidelines. Training is usually focused on questions to ask and dispatching procedures to follow, depending on the nature of the emergency. Agents in secondary call centres for medical emergencies report that they have a procedure guide with instructions on how to obtain cooperation from callers in crisis. During initial training, new employees may get practical chances to try out communication methods with difficult callers in the presence of a mentor, but this is not systematic: it depends on whether or not the trainee receives these types of calls.

The subject of difficult callers is not given much attention in continuing professional education either. In one 911 call centre, agents were given training on "letting go" when dealing with arrogant callers. Another call centre organized a training session to raise agent awareness about mental health problems. This training session was given by a police officer specialized in the field, and part of it took place in a psychiatric hospital. In other emergency centres, the subject of how to respond to difficult callers is combined with ongoing training on handling calls from suicidal callers. However, these training sessions, given by organizations specializing in the field, are not focused on giving call agents practical tools to deal with these situations in their work. Call agents do not have to diagnose a mental health problem; instead, they must communicate with people suffering from these problems and follow procedural instructions. While the instructions given during initial training are useful reference tools, it's only through practice that agents develop skills to obtain cooperation from difficult callers as quickly as possible. Study participants therefore listed the communication strategies they use with difficult callers (see summary sheets 1 and 2 on arrogant callers and callers in crisis). The ability to apply these instructions or communication strategies comes with experience; the choice of which strategy to use depends on the agent's success in getting a difficult caller to cooperate. In fact, a given strategy can be effective with some callers and not with others. It is not always easy to determine, during a phone call, if communication difficulties are the result of a caller in crisis, a speech impediment, a mental health problem or intoxication. The agent may also use available contextual information to aid in decision-making, such as call location (which may appear with the telephone number), the date, the time, audible background noise, etc.

In addition, the verbal tone that an agent uses during an emergency call, especially when dealing with a difficult caller, is not necessarily one the agent would spontaneously use in other circumstances. Agents must maintain a professional demeanour. With this in mind, agents learn both to control their emotions and to apply strategies to resolve communication difficulties. The instructions given during initial training and the experiences shared by colleagues are basic foundations. With time and practice, agents can acquire expertise that allows them to be as effective as possible. This evolution is based on a process of self-reflection. The information gathered from agents throughout this study indicates that this reflective process is caused by their

doubts or their failure to obtain information from callers. In these situations, agents reconsider their methods, questioning themselves on potential alternate outcomes if they had responded differently. This self-reflection takes place at work, if the agent has time to stop and think about it, but also at home, when agents think about call situations and consider possible alternatives to their handling methods. At work, new call agents say that they learn by listening to their colleagues. That is how they find out about different phrases and communication strategies to use.

### **Getting help from a team leader and from colleagues**

When faced with communication problems that an agent is not able to solve, the agent may request help from the team leader or from colleagues.

The kind of help that team leaders can provide to agents during a call depends on the technology at his or her disposal. In some call centres, the agent can have the team leader listen in on a call without having to transfer it; in other centres, the call must be transferred. Changing responders may have the effect of calming an arrogant caller down. However, agents say that they rarely use this option, reserving it for extreme situations when they are close to losing control. They feel that dealing with difficult calls is part of their work, and they are reluctant to get rid of a problem by handing it off to a colleague.

### **Desired improvements**

Proposed improvements are related to initial training and ongoing training.

The proposals related to initial training are meant to allow novices to gradually get used to communicating with difficult callers. These proposals are mainly related to situations with arrogant callers, but they can also apply to difficult callers in general. They mainly involve informing trainees about these situations, listening to recordings of arrogant callers, giving trainees tips to help them defuse situations and maintain control of the call and, finally, conducting arrogant caller simulations with the trainees.

With regard to ongoing training, agents expressed a need to conduct simulations and especially to share their experiences about problem cases. These exchanges could be combined with training to answer agent questions about specific problems, such as how to neutralize aggressiveness in a caller, how to detect a caller's mental health problem and, when speaking to callers with mental health problems, how to avoid making the situation worse.

#### **4.2.1.1.2 Calls in which the level of urgency is uncertain (summary sheet 4)**

##### **Description of the problem**

The level of urgency for some 911 calls is uncertain. These calls include, for example, citizens with some sort of problem, citizens who see an incident that seems suspicious (proowler, neighbourhood argument, conflict between owner and tenant). There is ambiguity about whether these calls require a police response. They may not be events related to criminal law, but rather non-events—emergencies that the caller cannot report directly, or events related to civil law. In these types of contexts, the agent must ask the caller to evaluate the situation and use his or her judgement. Responding to these calls places agents in a zone of uncertainty and discomfort: they must rapidly obtain particulars from the caller, decide on whether the call should be dispatched, and if so, establish the priority of the emergency. These call situations are rarely addressed in initial training. Agents report being trained mainly to respond to clearly identifiable emergencies.

An emergency that is not expressed clearly and directly may be an unfounded call; however, it may also be a call that seems non-urgent at first glance, but that turns out to be a high-priority emergency. This may be because the caller cannot speak freely about the situation or has wrongly assessed the danger involved. Unfounded calls that alert agents unnecessarily are fairly numerous, as citizens do not always understand the appropriate reasons for calling 911. Handling these calls is complicated: agents must be on their guard for emergencies, or they may get into conflicts with dissatisfied callers who feel they are not receiving the requested service. To avoid these types of conflicts and to avoid unnecessarily tying up 911 emergency lines, some agents respond to non-urgent requests. And yet with such a high rate of unfounded calls (estimated at over a third of all calls), agents are in danger of lowering their vigilance and failing to perceive an emergency simply because it was not clearly expressed.

Some emergency requests require knowledge and experience to judge if the situation is a matter of civil law or criminal law. There's a fine line between the two, and the consequences are not always easy to predict. While they often have clear procedures to follow, agents are not always given all the necessary information to make appropriate decisions. If they don't dispatch the call, there is a risk that the situation will turn into a criminal act; however, if they dispatch it to the police and it is not an emergency situation, they will have unnecessarily mobilized a patrol car. Agent opinion is mixed on how to respond to callers when the request stems uniquely from a civil law dispute. Some agents have stated that it is important not to respond to these calls, as it may undermine the overall purpose of the centre, which is to respond to emergencies. Others, to avoid conflict, choose to refer such callers to organizations that can help them.

##### **Acquiring skills to overcome uncertainty about whether or not to dispatch a call**

The skills needed to overcome uncertainty about whether or not to dispatch a call are largely acquired by practice. Some agents mentioned that in the beginning, they dispatched uncertain calls systematically to the police. Subsequently, as they gained experience, they were able to understand these requests better, giving them insight on whether or not to send the police. Also with experience, agents learn the criteria police use to determine whether or not intervention is necessary. They understand the purposes of police services better, as well as the reasons that justify an intervention. In some call centres, videos are produced and shown on-site to remind

agents about the factors that could affect caller requests, depending on the time of year (e.g., residential moving season); sometimes a cue sheet with examples is handed out. These types of problems may also be discussed in the emergency call centres that organize regular off-duty team meetings.

To respond to the problem of uncertainty about whether or not to dispatch a call, agents have developed various strategies, which are described in summary sheet 4.

### **Desired improvements**

Many of the interviewed agents would like to receive training on how to distinguish situations related to civil law from those related to criminal law.

#### **4.2.1.2 Maintaining communication with a caller waiting for assistance**

In some emergencies, the agent must stay on the line and maintain communication with a caller waiting for the police to arrive. These situations occur when the security of the caller is threatened by a third party, or to prevent the caller from feeling alone on the scene of a dramatic event, or to keep the police abreast of developments. The most difficult cases reported were related to maintaining communication with a suicidal caller, and calls in which the agent must serve as an intermediary between the caller and the police.

##### **4.2.1.2.1 Maintaining communication with suicidal callers (summary sheet 5)**

### **Description of the problem**

A caller who is threatening to commit suicide may in fact do so at any given moment, with the emergency call agent as a witness. The agent is the only person able to do anything about it before the first responders arrive—and all they can do is maintain contact and try to prevent the caller from engaging in self-harm. With their voice as their only tool, the agent is in a fairly powerless position to control this situation, which may have a dramatic end. Their emotional and cognitive strain is therefore very high. And yet support for handling these types of calls is minimal.

Initial training mainly deals with procedures for obtaining the information needed to evaluate call priority and dispatch first responders. In some emergency call centres, agents reported that they transfer suicidal callers to a health communication centre, and that they stay on the line until the police arrive. However, the health centre agent then ends up in the same situation as the emergency centre agent. After asking the required questions according to procedure, the health centre agent must then maintain conversation with the caller, staying on the line without necessarily having received specific training to do so. Furthermore, transferring these types of calls from the emergency call centre to a health communication centre is not possible if the caller does not consent to the transfer, or if there is a risk of the caller hanging up or engaging in self-harm.

Some emergency call centres organize ongoing training sessions, which are generally given by organizations specializing in the field and working in the same region as the call centre. These

training sessions raise the agents' awareness about the resources that exist in the region for this type of problem. While these training sessions are reported to be interesting, they do not help agents with the problem of maintaining contact with suicidal callers. For call agents, the problem is less about understanding the factors that may lead people to commit suicide or the signs that indicate a person may be suicidal, but rather to know how to talk to someone who is threatening to commit suicide. They sometimes have to stay on the line for extended periods of time, continually on the alert, trying to choose appropriate topics of conversation and avoiding those that may make the situation worse.

One agent reported that in one emergency call centre, a training session by the Sûreté du Québec instructed agents on how to negotiate with these callers, and what to say when the caller doesn't want to speak to anyone else. In another call centre, it was reported that staff from Suicide Action gave a training session to explain what leads people to become suicidal, and certain things that agents must avoid saying. However, the agent pointed out that during this type of call, if the caller is aggressive and claims to be armed, it is difficult to establish a relationship of trust.

For new agents, the first call of this kind is an unnerving event. If the agent is able to handle these types of situations emotionally, he or she eventually develops a certain expertise. However, uncertainty, doubt and risk of failure are always present.

### **Acquiring skills for maintaining communication with suicidal callers**

During the interviews, some communication and call handling strategies for suicidal callers were mentioned. These strategies mainly aim to gain the caller's trust, to determine if the caller is armed, to determine if the caller is a threat to the first responders, and to engage the caller's attention in order to gain time. The strategies that came up in the interviews are described in summary sheet 5.

### **Desired improvements**

Most of the agents interviewed expressed a need for training on the subject as related to the following questions:

Are there methods for keeping the caller on line that are more effective than the ones they have made up on their own?

How can an agent establish a relationship of trust with a suicidal caller?

Should agents make prevention pacts? If so, at what point in the call?

These training sessions should be developed jointly with specialists and call agents. They would give new agents a sense of security, while allowing experienced agents time to share their experience regarding communication strategies with suicidal callers.

Some agents mentioned that posting training sessions on the Internet would be a good idea.

#### **4.2.1.2.2 Serving as an intermediary between a caller and the police (summary sheet 6)**

### **Description of the problem**

In emergency calls involving hostage takings or barricaded persons, it's possible that the caller (victim, witness or suspect) wishes to stay on the line with the agent who first responded to the 911 call. The agent is therefore obligated to serve as an intermediary between the caller and the police. This situation may occur in spite of the procedures some call centres have put into place to transfer the call to specialized police investigators, or to send investigators to the agent's workstation. For this type of call, it is essential to prevent the caller from hanging up because his request to remain in contact with the agent was ignored. The agent can therefore be forced to stay on the line until the event is over, in communication with the police at the event location. This is a difficult task for the call agent, who must be extremely alert, asking questions in order to be able to describe the situation to the first responders, and simultaneously listening to the information needs and instructions of the first responders. It is made even more difficult and emotionally stressful when faced with the idea that giving wrong information—or failing to get the caller or the responders to understand the situation—increases the danger for the people involved. This kind of situation is fairly rare, which is why it is not addressed in initial training and not often discussed in ongoing training. One call centre reported having received training from a police negotiator about the intervention process in the event of a barricaded person, and about how to negotiate with that person. At another call centre, these types of situations are discussed during team meetings. Generally, emergency call centres rely on being able to transfer the call to a police investigator or a specialist in that type of situation. When this transfer is not possible, agents are instructed to gather as much information as possible. The agent is tasked with giving information to the police and buying time, but not trying to resolve the situation. In some call centres, agents are allowed to use their own judgement as to whether they need to stay on the line or not with lone barricaded persons.

### **Acquiring skills allowing agents to serve as intermediaries between callers and the police**

These skills are not acquired by experiencing these kinds of situations—they do not occur often enough in an agent's career—but rather by improving general communication skills with 911 callers, gaining experience dispatching calls to the police, and learning how to work as a team with colleagues, team leaders and the police. Teamwork is very important in these situations: while the agent is in contact with the caller, the team or unit leader can be in contact with the police on location.

### **Desired improvements**

While these situations do not occur frequently, agents want to be able to gain experience by conducting simulations.

#### **4.2.1.3 Taking calls and dispatching for major emergencies (summary sheet 7)**

### **Description of the problem**

Major emergencies are events in which numerous first responders are deployed to deal with phenomena that endanger the health and safety of the population or that may result in major

material damage. The principal major emergencies are caused by natural phenomena (earthquake, flooding, ice storm), major accidents (airliner accident, major fire, major industrial accident), and criminal acts (active shooter in a public space, terrorist act, hostage taking). Fortunately, these are rare phenomena. When they do occur, however, agents must be able to react quickly to meet the high rate of incoming calls, dispatch calls to multiple first responders and meet their information needs. The preceding study (Toulouse et al., 2011) revealed that agents were uncertain of their abilities to perform these tasks effectively in the face of strong negative emotions. This is because practice opportunities are rare compared with other, less complex types of emergencies. Furthermore, the study participants did not all agree on the need to train agents to respond to this type of emergency. The main reservations interviewees had about training agents specifically on major emergencies were as follows:

- Agents are already trained to respond to this type of emergency: the existing fire protocols are applicable in many major emergencies, with the only variable being the number of first responders to mobilize;
- The unpredictability of these situations means that it is difficult to train agents, as emergencies will never happen the same way twice. In addition, any major emergency training will probably not correspond to the emergency as it occurs in reality.
- It is difficult to offer this type of training in a realistic way, due to the impossibility of simulating the wave of incoming calls;
- Minimization of the role of the emergency call centre; it is seen as limited to taking and dispatching single incoming calls;
- The infrequency of major emergencies means that there may be a long time between the training session and the possible major emergency, so that agents will forget the training before the emergency happens.

In some emergency call centres, procedures are established for specific major emergencies, such as airplane accidents or factory explosions. One centre's simulation of an airplane accident in a regional airport ended up being useful in responding to an actual airplane accident a few weeks later. In another call centre, agents were able to attend a simulation of an active shooter in a school. The agents were informed beforehand of the simulation, which had been organized with the Police Intervention Service using actors. It was followed by a debriefing with the training organizers. The simulation allowed agents to take calls testing their ability to apply procedures in the context of a major emergency and then, during the debriefing, to discuss the various elements affecting teamwork and the application of procedures. The dispatching agent was given the opportunity to experience the role of information relay between agents taking incoming calls and police officers at the site, and to work with a team leader who was there to assist. The entire staff mentioned that this type of training was beneficial, allowing all participants to build confidence in the face of this type of emergency. However, in another call centre, a simulation was held where the agents were not told in advance. Without time to prepare, the staff was caught off guard and the simulation did not have the desired effect. This shows that simulations should be organized and prepared with the knowledge of personnel, and that everyone should be informed about the basic instructions and each person's role.

## **Acquiring skills related to taking calls and dispatching for major emergencies**

The skills for handling and dispatching calls in major emergencies are based on agent experience in responding to daily emergencies. Two types of situations allow agents to acquire experience that will help them in major emergencies: handling a sudden jump in incoming call rates, and handling emergencies that require agents to dispatch multiple first responders. Some practical strategies are used to manage sudden increases in rates of incoming calls (summary sheet 7).

The need to send several first responders to a location, to give them accurate information and to answer their questions adds to the dispatching complexity of an event. Agents must perform several tasks at the same time, using different communication methods (telephone, radio, computer) and communicating directly with colleagues. In this context, teamwork is vital, as was the case during a major fire reported by one of the centres. According to reports, the team leader played a crucial role, taking control of the department, deciding how the team would function throughout the event and assigning various tasks to the agents. It's important to make sure that people aren't doubling up on the same tasks, and to avoid missing other, unrelated emergency calls that may occur during the major event. One or more agents should be assigned to handle requests from concerned citizens and direct them toward the appropriate services, while another must take questions from the first responders and record them correctly on the calling card so no one wastes time duplicating work that has already been done. The role of the team leader is to supervise the work, making sure everything is getting done efficiently and providing help and advice so that each agent knows what to do and how to do it. This role is not easy to fill when there is a surplus of incoming calls, because sometimes agents do not understand why the team leader is not also answering calls.

### **Desired improvements**

While the variability of emergency situations is well known, most agents noted that regular practice would allow them to review their use of procedures, and would place agents in a context where they would have to handle these types of major events. A specific request was formulated for simulations of an active shooter in a school—a major source of worry in many emergency call centres. The request was specifically for a code white<sup>4</sup> simulation in a school, to make sure agents could carry out the instructions.

## ***4.2.2 Support after receiving a dramatic call triggering high emotional strain (summary sheet 8)***

### **Description of the problem**

Providing support during a difficult call aims to help the agent to perform his or her job as satisfactorily as possible, thereby reducing the emotional strain associated with communication difficulties or dispatching. The intensity of this emotional strain is related to the dramatic nature of the emergency situation. And yet the end of the call does not necessarily correspond to the end of the resulting effects: these will last for as long as the dramatic event resonates with the agent,

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<sup>4</sup> A code white is an emergency procedure triggered by a school administration that involves confining the school staff and students in a classroom due to the presence of an armed suspect.

which may be long after the call is over. Agents need support to manage their emotions after a difficult call. According to the agents, this support must take place immediately after the call and continue for as long as is necessary, depending on the impact of the dramatic call.

Immediate support is generally provided by the work team, as is shown in the previous study (Toulouse et al., 2011). However, agents do not automatically look for help. An agent will not necessarily manifest an immediate need for support, even after a dramatic, emotionally demanding call. This is true for several reasons:

- Agents do not always realize the psychological impact that the dramatic call may have in the medium and long term;
- A request for help may be seen as weakness;
- Asking someone for help requires the agent to have a certain level of trust in the person;
- Agents do not all have the same sensitivity to dramatic situations; therefore, they do not all react in the same way;
- Agents do not all have the same amount of experience (e.g., an experienced call agent working with novices);
- When an agent needs support, the colleague of choice (with whom they share a relationship of trust) may not be available.

However, keeping strong emotions to oneself after a dramatic and demanding call should be avoided, according to agents who have had this experience. It may take several years to gain perspective and control the emotions caused by this type of call.

### **Support available after a dramatic call resulting in high emotional strain**

To receive support immediately after a dramatic call causing high emotional strain, the strain has to be detected before support can be made available. In several centres, agents report that if they notice that a colleague has just handled a dramatic call, they speak to the agent directly to ask how he or she is doing, or they notify the team leader. In one call centre, the team leaders' tasks were reviewed to raise their awareness about the importance of being alert to this problem. In several emergency call centres, team leaders are asked to help agents who need support after experiencing strong emotions. However, certain team leaders feel helpless because they are not always free to leave their workstation, and also because they have not been trained to provide this kind of support and therefore do not know how to react.

In all emergency call centres, if incoming call rates allow, the affected agent is permitted to leave his or her workstation for a few minutes and to go speak to another agent, to the team leader, or to an available manager. One example was mentioned where a manager replaced an emotionally affected agent who could not finish the work shift. Sometimes, the agent and the team leader are asked to debrief with the police after a difficult call. Support can also be obtained through team meetings, or through colleagues talking with the agent after the shift.

The only long-term support mechanisms available in the call centres is the Employee Assistance Program (EAP). However, agents say that they do not use it. Wait times to get appointments are too long, particularly as the agents have an immediate need for support. To resolve this problem,

one 911 call centre made an agreement with an EAP that provides for a professional coming to the centre to meet with the agents at any time following a request from the team leader.

### **Desired improvements**

The interviewees expressed a desire for improved support organization: team leaders, for example, want a procedure indicating what to do and how and when to do it. Specifically, they need to watch for dramatic calls, and they need to be trained in both operational and emotional debriefing. They want to be able to meet with the agent after a difficult call.

The agents, too, want to be able to talk to someone after handling a difficult call. They want to be given the time and resources to talk to someone immediately after the call, to meet and discuss with other team members once per work cycle or as needed, and to call in professionals to help facilitate team discussions. Some agents think that meeting with a psychologist should be mandatory after an emotionally difficult call.

## **4.2.3 Support organization in general**

### **4.2.3.1 The role of the team leader in providing support to agents handling difficult call situations**

Supervisory personnel in 911 call centres varies according to the size of the centre. In the larger centres, management is generally made up of a call centre manager, day staff responsible for training and quality control, a unit or department head and a team leader for each work team. Smaller centres usually have only a centre manager and team leaders, with training and quality control being conducted by the manager or by an experienced agent who is allotted time to perform these tasks. In some larger centres, these tasks are given to one or two agents who are responsible for training and quality control full time.

The interviews revealed the team leader to be particularly important in terms of organizing the work team and supporting agents in difficult call situations. In fact, all participating centres had team leaders working on the call centre floor with the agents. In addition, while all the teams of any given centre apply the same procedures, the agents pointed out that the team leader has a big impact on the specific work style of his or her team. Here, we examine the various support tasks performed by the team leader—although they may also be performed by the unit or department head.

#### **Team leader selection process and main tasks**

Team leaders are selected from among the more experienced agents. They begin by acting as substitute team leaders. If they show aptitude for the position, they can apply to be a team leader when a position becomes vacant. They are not usually given specific training. The tasks of a team leader can be separated into three categories: administrative tasks, tasks requiring communication with first responders, and tasks related to the work team. In smaller centres, these tasks are performed in addition to the work of taking and dispatching calls, while in larger centres, the team leader does not take calls. In mid-sized centres, this can vary according to the centre or the situation; for example, the team leader may take calls when there is a high rate of incoming calls.

Administrative tasks consist of day-to-day staff management, such as signing absence forms and finding replacements. The team leader also meets with the agent involved after a caller complaint is lodged and evaluates new employees during their probation period. The tasks requiring communication with first responders involve ensuring effective relaying of information to the agents, based on the specific needs of the first responders (such as a change in the available firefighting equipment). The team leader also manages disputes that may arise between agents and first responders. Tasks related to the work team consist in ensuring the smooth functioning of operations. This means that the team leader must stay aware of the current situation in the call centre by listening to agents, checking calling cards, answering agent questions and meeting with agents if there is a quality problem. Providing agent support falls into this last category.

### **Main team leader support activities for agents handling difficult call situations**

The team leader support activities mentioned in the interviews are related to managing operations, managing emotional strain and maintaining a healthy work atmosphere. These activities vary according to the call centre and the team leader.

Operational support aims to anticipate and help manage problems encountered by the agents, checking and correcting calling cards and advising and training new agents. This entails the following duties:

- Obtaining necessary information from the previous shift to inform the next shift (e.g., a radio frequency that isn't working);
- Supervising and assisting an agent having difficulties applying a protocol;
- Helping to manage a difficult caller or staying on the line;
- Checking and correcting calling cards;
- Advising agents, determining areas for improvement, giving out tips;
- Participating as an instructor in agent training;
- Identifying particularly successful calls for the team to listen to and analyze.

Providing support for calls associated with high emotional strain involves being alert and detecting if an agent is confronting this type of situation. To do so, the team leader must be constantly watching the call centre floor, which is not always possible when taking and dispatching calls or performing other tasks. In such a case, several agents indicated that they notify the team leader when they see that a colleague is dealing with a dramatic call. The support activities cited by team leaders in these situations include:

- Listening to and observing the agent's reactions and, if necessary, physically approaching the agent and talking to him or her;
- Permitting the agent to leave the workstation for a few minutes, if incoming call rates allow;
- Replacing the agent, in extreme situations where the agent is too shaken by the event to continue working;
- Meeting with the agent at the end of the shift, if the latter so wishes, to talk about the call and find out how the agent is doing;
- Organizing team discussions during calmer periods or at off-duty meetings, if the entire team has been affected by a dramatic event;
- Inviting an EAP psychologist to the call centre at short notice, if required.

The team leader also has a responsibility to maintain a positive work atmosphere, which sometimes requires active management due to the problems that may occur from so many people spending so much time at close quarters. The team leader also ensures that interactions between agents are respectful. Some participating team leaders stated that, upon noticing problematic agent behaviour towards a caller, they do not criticize the agent's response, but instead try to understand why the agent reacted in that way, and how the agent feels. Sometimes, team leaders will get agents to listen to their own calls, which is often sufficient to make an agent realize that his or her response was less than ideal.

To deal with problems within the team, the team leader organizes meetings to discuss the issues.

### **Limitations of the support provided by the team leader**

While the team leader's functions allow him or her to support agents dealing with difficult call situations, there are limitations as to what team leaders can do, depending on the circumstances at hand.

The first limitation stems from the centre's technology, which may not allow the team leader to listen to agent calls. When this option is not available, the team leader must resort to reading agent behaviour and the length of the call to detect a difficult situation. Furthermore, if a call is not audible, it is more difficult for the team leader to help the agent during the call.

The second limitation stems from the division of tasks between a team leader and an agent. The team leader may prioritize his or her regular or mandatory tasks over less tangible tasks such as team-building and providing support. This is particularly the case as the team leader is not trained to carry out these less tangible tasks, which are not necessarily recognized. Team leaders pointed out that some agents don't understand the role of team leader: they expect the team leader to perform the same work as them, especially when incoming call rates are high. And yet it is during the periods when the agents are busiest that it becomes all the more important for the team leader to be supervising team operations, checking calling cards to avoid errors, and ensuring good communication with counterparts in the field.

A third limitation mentioned by some team leaders is the lack of clear guidelines and training to support agents in difficult call situations: they mentioned that they don't know what to do.

A fourth limitation was brought up by agents concerning the poor timing of team leader interventions. Agents said that sometimes the team leader intervenes too quickly, instructing the agent to ask a caller certain questions when the agent had already intended to ask them, but not necessarily in the same order.

A fifth limitation is related to the support that team leaders themselves need to do their job. Team leaders receive very little training on how to perform their work, how the different tasks are distributed, or how they themselves should handle situations of high emotional strain.

### **Desired improvements**

Desired improvements concerning the support role of team leaders mostly involve receiving training on interpersonal communication skills and teamwork, as well as learning good intervention methods for reacting to and helping colleagues. This training could be based on the experience of certain team leaders, as it was mentioned that some team leaders have a better approach than others. It was also mentioned that the support role of team leaders should be better defined and explained.

### **4.3 Main findings on support available to call agents handling difficult call situations**

The results of this study examining support for 911 emergency call agents who handle and dispatch difficult calls confirm the importance of training that was already evident in the findings of the second study (Toulouse et al., 2011). In fact, the desired improvements stated in seven out of the eight difficult call situations had mainly to do with training needs. It was only for calls causing high emotional strain that needs other than training were also expressed: namely, immediate and long-term support. Support requests are generally oriented towards receiving more training because the problems agents are dealing with stem from agent-caller communications: they cannot be resolved by more or better technology. The centres are already well-equipped with technology to help call agents; for example, they have a system that automatically displays the addresses of landline callers—and, in the near future, the GPS coordinates of cell phone callers—as well as various software platforms that provide agents with important information, such as geomatics software, police databases and fire services dispatching. While the difficulties of using this technology are not negligible, the main problem remains that of human communication with a difficult caller. The agents need support to help them develop the skills for dealing with this problem.

In addition, it seems important to establish a better definition of the role and the duties of the team leader. This clarification has been undertaken in several 911 call centres. Means for supporting agents after a call causing high emotional strain are being implemented in some call centres; they mostly consist in establishing agreements with organizations to intervene immediately after the call, assigning team leaders the task of staying alert to this type of situation, and using post-shift team meetings to debrief.

Participant comments about the training available at 911 call centres on subjects related to difficult call situations point to certain obstacles. Interviews with call centre managers and training managers revealed that training on difficult call situations was particularly hard to find, due to the specific nature of 911 call centre work. When questioned on the relevance of the available training on handling difficult calls, several agents stated that the training they received was not sufficiently adapted to their work reality and did not meet their practical needs. Some of the training content was considered to be interesting, but too theoretical and therefore not helpful in terms of actual call situations. Consequently, many agents had the impression that most of the training sessions did not allow them to acquire new skills, and that the content of these sessions did not measure up to the expertise of experienced colleagues. The agents stated that some training was found to be more relevant, but that it was not given often enough, which undermines their ability to retain the information and share it with new agents.

Developing procedures to guide agents through the process of handling difficult calls is another strategy used by 911 call centres. According to the interviewees, these procedures are most helpful when they are for certain types of calls that occur less frequently. In such cases, agents tend to refer to procedures to help them remember the steps for handling the call, as well as actions to be taken and information to be obtained. However, according to several agents, procedures do not ensure a perfect response to all types of calls or to all situations that occur at a 911 call centre. The incongruity between prescribed work and real work that occurs at a

workplace was first examined by ergonomics pioneer Alain Wisner (1995). Achieving the goals of the prescribed tasks requires workers to develop strategies that deviate from the prescribed procedures—in real call centre conditions with real unpredictable constraints. In ergonomics, the need to perform real work is inextricably linked, for Wisner, with worker intelligence. This intelligence must be recognized, and the worker must be given a fundamental role in the understanding of work situations (Sznclwar and Le Doaré, 2006). With time, many agents develop expertise and skills that are unique to them, but it appears that there are no formal mechanisms for recognizing and transmitting this expertise in the majority of the 911 call centres participating in the study.

In order to promote the construction, recognition and transmission of professional expertise related to handling difficult calls or other similar themes, the following section presents an approach that was developed in light of the information gathered from the interviews conducted with various 911 call centre actors. This approach aims to meet certain needs expressed by the agents, specifically, the need to be better supported as they develop the skills to handle certain types of more difficult calls, the need for recognition of the expertise they have acquired, and finally, the need expressed by some agents to feel more involved in the organization. Before presenting the practical steps of this collaborative approach for constructing and transmitting professional expertise, the underlying principles of the approach must be stated. The approach is based on 1) the importance of the work collective and of cooperating to develop professional expertise; 2) the co-construction of dynamic, relevant training content; 3) the transfer and sharing of knowledge between centres; and 4) worker recognition as a side effect of the approach.

## **4.4 Cooperative approach for co-construction of professional expertise with 911 emergency call centre agents**

The goal of this approach is to promote the development and sharing of knowledge and skills related to handling difficult 911 calls.

### **4.4.1 Basis of the approach for co-construction and development of professional expertise**

In a study on the psychological health of full-time firefighters, Douesnard (2011) revealed that professional expertise was developed and transmitted through communal on-the-job experiences that were then discussed by the work collective. The author states that implementing cooperative practices to ensure the sharing and development of professional expertise is particularly important for people working in the field of emergency management, who are often confronted with danger, suffering and the urgent need to act. Professional expertise guides workers who are subjected to high emotional strain during their work and supports them in their decisions about how to respond in situations that involve unpredictability, fear and suffering (Douesnard and St-Arnaud, 2011). Like firefighters and police officers, 911 call agents are subjected to high emotional strain and regularly come into contact with the suffering of others (Toulouse et al., 2011). However, contrary to the first responders on the ground, 911 call agents must react to these situations remotely from their workstations. The only way they can deal with the tension of a situation, including the physical tension it may cause, is by talking and listening (St-Arnaud et al., 2010). Providing a time and place for agents to talk to each other about their work is beneficial for reasons beyond the development of professional expertise: it also gives agents a means to relieve their emotional tension. According to Clot (2002), the work collective is a key factor in preventing health problems at work because it acts as a healthcare provider.

This proposal of an approach for the co-construction and development of professional expertise among 911 emergency call centre agents is based on theoretical foundations that encourage cooperation between members of a work collective in order to promote the development and sharing of professional expertise. Work collectives develop through working together and through the collective experience of specific situations (Dejours, 2000). More than a simple working group, work collectives draft their own rules and develop their own professional expertise (Molinier, 2006). In other words, it is *an entity structured by rules that the members have established together* (Dejours, 2009). For a work collective to exist, its members must share the same profession and have time and space to discuss, share experiences and talk about their work methods, their workplace rules and their professional expertise.

Professional expertise consists of the techniques, knowledge and skills that a worker develops in order to do his or her job. Doing a job is not simply a question of executing tasks, but also of understanding and designing the way the tasks are executed. Workers generally gain expertise when they are confronted with situations for which their usual methods are insufficient. Faced with this discrepancy between the prescribed tasks and the work reality, the only way for a worker to move forward is by discovering new techniques, methods, skills and knowledge (Molinier, 2006). This know-how becomes professional expertise when it is cooperatively discussed, debated and recognized by the members of the collective (Dejours, 2009).

Cooperation is a social exchange that takes place when the members of a work collective talk about their work, debate ideas and discuss work methods. It allows the collective to pool each member's work methods, to make them more coherent and to make sure the tasks are properly carried out. However, cooperation cannot be imposed, or even defined; no one can dictate in advance what cooperation should look like. Cooperation stems primarily from each member's freedom, and from a collective desire to cooperate. Then comes the work of building trusting relationships, not only between collective members, but also among the organization's various actors (Dejours, 2000, 2009). Cooperation allows each member to contribute their own tips and methods to the communal pool of expertise, resulting in more coherent collective work methods. Cooperation is characterized by the drafting of rules in a space designated for communication and debate among collective members who share their knowledge and their professional expertise. By allowing free expression about the issues associated with the work, these discussion spaces contribute to the improvement of each member's body of experience, and of the communal pool of expertise. According to Davezies et al. (2014), building discussion skills allowing workers to talk about their work has an impact on both worker health and on organizational vitality. These discussion spaces promote both the individual and the collective development of the workers, giving them new perspectives on professional expertise by exposing each individual to the work and experience of others (Davezies, 2012).

#### ***4.4.2 Co-construction of training content adapted to real work situations***

The results of this research emphasize the importance of developing training content that is adapted to the real work of call centre agents. For content to be relevant, it must be based on actual work experiences that have been shared, discussed and debated by call centre agents. The proposed approach aims to establish a cooperative training network of 911 emergency call centres, founded on the willing participation of centres and agents interested in helping develop and share training content about 911 emergency call centre work.

Experienced agents must be the primary actors in developing the training content. According to St-Arnaud et al. (2010), a call agent must have around seven years of experience to develop a sophisticated and diversified know-how and build an extensive repertoire of emergency call situations, enabling the agent to have a more complete view of the cases and to develop solid professional expertise. The proposed approach would involve each participating centre creating a group of two or three agents with at least seven years of experience in the profession, along with one person who manages training at the centre. Each group would choose a training topic to work on, based on group member interest and expertise. Practical training content would be developed through a series of discussions among the members, based on the various individual and collective experiences of emergency call centre work. The training manager, or someone else who is willing and able to perform this work, would then help structure the elements into a training module. Depending on the training topic, the group may need to consult with an external expert in order to gather information on various aspects of the issue that would improve the training or clarify certain theoretical elements. The training modules developed by the groups would then be presented to the other agents at the centre, who would be invited to discuss the content. These discussions would be taken into account by the members of the working group, who would enrich the training content by incorporating the points expressed in the work collective discussions.

Once training modules have been developed by working groups at participating centres, each group will be responsible for presenting the training module to the other 911 call centres. This step will gradually result in the formation of an ongoing training network among 911 call centres in Quebec. Each training module will be presented to the other centres in an effort to improve the content, but also to increase the level of cooperation among work collectives, as well as more generally in the emergency call agent profession. This process will result in the creation of a forum in each centre: a place for sharing, discussion and debate among call agents. These forums will reinforce each centre's work collective and encourage call agents to share professional knowledge and expertise. The structure of this approach allows centres to offer dynamic and relevant training that is constantly being enriched by new expertise from discussions about real work in each of the work collectives.

#### ***4.4.3 Cooperative approach process: an example***

The approach described in the previous section may take various forms: it can be adapted to the call agents' needs, and to the reality and the resources of each centre. However, an example of how the approach could actually look will help make it more tangible. The following is therefore a practical example of each step of the process.

##### **Step 1: Creating a training network coordination committee, or appointing a network coordinator**

Before the collaborative training approach starts in the participating centres, it is important to assign one or more people to be responsible for coordinating the training network. This person or committee is given the initial job of identifying centres interested in participating in the training network; subsequent coordination work would mainly consist in ensuring inter-centre communication, informing the network of the training modules developed by participating centres, and coordinating the training schedule with representatives from each call centre.

##### **Step 2: Creating working groups at each centre to develop training modules**

This step involves creating a group at each participating centre to design a training module, after discussing the topic with the network coordinator or coordination committee. This group would consist of around two or three experienced call agents (with at least seven years of experience as an emergency call agent) along with the centre's training manager.

##### **Step 3: Developing the initial training content**

The working groups at each call centre are responsible for designing the first version of their training module. Over the course of several meetings, the group members would discuss the topic, listen to recordings of calls related to the topic and gradually develop the training content. It may be necessary to consult an expert to complete or enrich the module. The training manager will be in charge of developing training tools (participant handbooks, PowerPoint presentations, exercises, etc.).

##### **Step 4: Validating and enriching training content through discussion within the centre**

Once a working group develops the initial version of a module, it is presented to the agents at the centre. One goal of this process is to establish a work discussion space for the agents. The training content would be put to the test for the first time, with call centre agents sharing and debating their expertise and rules of the trade while a member of the working group takes notes. The working group would subsequently meet to enrich the training module using the notes from the discussion meeting with the other agents.

### **Step 5: Presenting the training module to other centres**

Once the content of a training module is validated by the agents of the working group's centre, the module is ready to be presented to employees of other centres. This step can take various forms, to be determined by the centre or the network coordinator or coordination committee. A member of the working group may be delegated to go and present the training module to the other centres; alternatively, the training material can be made available to the training managers of the other centres, who would offer the training in their own centres. Whatever form this step takes, it is important to prioritize a format that establishes a space for talking about work in general, and the topic of the training module in particular. Each time a training module is offered in a new centre, it is important that someone is assigned to take notes on the exchanges and discussions that come up during the training session. These notes will be sent back to the group that designed the module and will be integrated into it to enrich the training content.

### **Step 6: Continually improving the training content**

As they will be subjected to discussion and debate among the call agents of all participating centres—each of which has its own reality that may or may not be similar to the others—the training modules will be continually revised in an ongoing improvement process.

The main goal of this proposed approach is to promote cooperation and the co-construction of professional expertise and rules among the agents of a given 911 call centre, and among the centres. It also creates a 911 call centre ongoing training network, with training content that is designed to be relevant to the centres' real working contexts. This network will meet the needs of centres that are finding it hard to obtain training specialized in and adapted to the specific work of 911 call centre agents. The approach is also likely to have a positive impact on occupational health by encouraging professional recognition.

#### **4.4.4 Recognition at work: a positive side effect of the approach**

The first study that we conducted in 911 call centres showed that a large percentage of agents feel that they are not given recognition for their commitment to their work (Toulouse et al., 2006). Recognition at work is known to be an important factor in the work environment, with real effects on worker health (Siegrist, 1996). According to Siegrist (1996), performing work that requires a high level of effort without receiving sufficient recognition in return—resulting in an effort/recognition imbalance—increases the risk of depression by 81% in a few years. In a recent Québec study on working, employment and OHS conditions (*Enquête québécoise sur des conditions de travail, d'emploi et de santé et de sécurité du travail*, EQCOTESST) (Vézina et al., 2011), employment in which workers perceived an effort/recognition imbalance was associated with increased incidence of high psychological distress for 35.8% of respondents. Other work

organization pressures were equally likely to affect 911 call centre agents due to the nature of their work. The EQCOTESST revealed a higher prevalence of psychological distress among workers frequently exposed to situations of tension with the public and among workers whose tasks are emotionally demanding (Vézina et al., 2011). However, the study also showed that the prevalence of high psychological distress returns to average rates when exposure to situations of tension with the public or emotionally demanding work is accompanied by high recognition.

If the absence of recognition is considered to be a risk factor for worker health, its presence can be a real factor in prevention and protection. Recognition at work can be seen as a source of health and an armature for good psychological health (Dejours, 2000; 2009). Recognition at work is always associated with the effort expended in doing the work: the greater a worker's effort, the more the worker expects to be recognized for it. It is linked to the tasks accomplished, not to the job position. It can be understood through two types of judgements by others: the external judgement of the work's beauty, and the external judgement of its utility (Dejours, 1993). The perception of utility, as held by others in the reporting line, can be related to the economic, social or technological usefulness of the work, while the perception of beauty is held by peers who perform the same work (the work collective). It is associated with professional ethics and following the rules of the trade, but can also highlight the individual style of the worker and the uniqueness of his or her work.

The proposed approach promotes call agent recognition in the workplace in two ways. Firstly, it presents opportunities for more experienced agents to get involved in training activities. For agents with a sophisticated knowledge of the work, this recognition can be taken as an acknowledgment by the centre's senior management of the value and usefulness of the professional experience they have developed over the years. Secondly, the approach promotes recognition of the entire group of call agents who participate in the training. The cooperative structure of the training, which will take place among agents sharing the same work reality, encourages the recognition of each worker's unique know-how. This recognition by colleagues and by agents from other 911 call centres is made possible through the creation of forums which will allow each agent to share the tips and methods that he or she has found to meet the requirements of the job.

These forums will promote conditions that lead to forming relationships of trust among the agents, who will have a space where they can talk freely about their work, but also between the agents and the centre management. By recognizing agent expertise and know-how, the management establishes conditions that encourage trust from the call agents.

## 5. SCOPE, LIMITATIONS AND CONCLUSION

The present study is the conclusion of a long process that, over the course of several projects, enabled us to identify occupational problems in order to take action to reduce psychosocial risks by working closely with both the managers and the call agents at 911 call centres. This research revealed a need for support for agents exposed to difficult call situations—a need that, up to now, has not been taken into account in the prescribed work and training. At the request of a member of the follow-up committee, we have included one secondary health communication centre in this study tasked with dispatching ambulances. However, these study results are mainly from 911 emergency call centres under the jurisdiction of municipal public safety. While similarities exist between the difficult calls received by secondary health communication centres and calls handled by 911 call centres (arrogant callers, suicidal callers, calls resulting in high emotional strain), the work contexts of these two types of organizations are different, and so are some of the work tasks. 911 call centre agents are on the front lines, responding to a wider variety of calls: it is the 911 call centre agent who transfers a caller with a health problem to the secondary health communication centre agent.

The study used only a small sample, with four participants per 911 call centre (the centre manager, the training manager and two agents) for centres with over 25 employees. However, the methodology—in line with the study objectives—was not designed to function with a representative sample. Instead, it was designed to provide a general idea of the existing support practices available to call centre agents, as well as the improvements that should be made, with the participation of key actors from centres recognized as being the most dynamic, in an effort to propose and set in motion a training approach that had been revealed, in a previous study, to be the best solution. The study was not about determining what kind of support to provide, but rather to allot time for reflection and to propose training attuned to real work conditions and agents' real needs. This type of training is not to be seen as a unidirectional transmission of knowledge or expertise, but rather a venue for sharing possible strategies to help agents deal with difficult call situations. Given the wide variety of situations observed, there are no magical solutions; nevertheless, agents need to have access to a response repertoire that equips them better for handling difficult cases. With this in mind, the contributions of more experienced agents are essential. During training sessions, they can share their knowledge with less experienced agents, giving them practical examples of how to incorporate these strategies into their work. Furthermore, when exposed to difficult calls that may have dramatic outcomes, even the most experienced call agents need to be able to talk to other agents, to enrich or simply maintain their repertoire of strategies.

A cooperative approach is proposed to develop this training content, involving the co-construction of professional expertise. This approach aims to create a cooperative training network among 911 call centres. Interested centres will contribute to the development and sharing of this training content, which will be focused on various difficult call situations, as well as the support tasks of team leaders. Each 911 call centre will be responsible for developing training content about a particular type of difficult call situation. The summary sheets in Appendix B can serve as a good starting point for developing training content based on real cases. This training content will then be presented and discussed with other participating centres, in order to adapt it to the specific context of each centre. In addition to developing training

content that meets the practical work needs of 911 call centre agents, this approach will lead to increased recognition of the professional skills needed for the job—and of the human beings behind the job title. This recognition is a factor in employee health, as has been demonstrated in various studies in the field (Dejours, 2000, 2009; Vézina et al., 2011).

## BIBLIOGRAPHY

Baker, N. A., Jacobs, K., Tickle-Degnen, L. (2003). The association between the meaning of working and musculoskeletal discomfort. *International Journal of Industrial Ergonomics*, vol. 31, no. 4, pp. 235-247.

Chevalier, A., Dessery, M., Boursier, M.F., Grizon, M.-C., Jayet, C. et al. (2011). Working conditions and psychosocial risk factors of employees in French electricity and gas company customer support +

Civil Protection Act, CQLR, c. S-2.3, sections 52.1 to 52.20: Regulation respecting standards, specifications and quality criteria applicable to 9-1-1 emergency centres and to certain secondary emergency call centres, CQLR, c. S-2.3, r. 2.

Clot, Y. (2002). *La fonction psychologique du travail*. Third extended version. Paris: PUF.

Davezies, P., Dugue, B., Flottes, A. et al. (2014). Libérer la parole sur le travail. *Santé et travail*, 4 (86), 25-40.

Davezies, P. (2012). Enjeux, difficultés et modalités de l'expression sur le travail: point de vue de la clinique médicale du travail. *PISTES*, 14-2.

Dejours, C. (2009). *Travail vivant. Tome 2 : Travail et émancipation*, Payot, Paris,

Dejours, C. (2000). *Travail, usure mentale. Essai de psychopathologie du travail*. New edition. Paris: Bayard.

Douesnard, J. (2011). Les impacts psychologiques des métiers dangereux: Portrait de situation de la santé psychologique des pompiers permanents québécois. *Revue Organisations et territoires*, 20 (2).

Douesnard, J. and St-Arnaud, L. (2011). Le travail des pompiers: un métier au service de l'autre. *Travailler*, 2 (26), 35-53.

Ferreira M, Saldiva P. (2002). Computer-telephone interactive tasks: predictors of musculoskeletal disorders according to work analysis and workers' perception. *Applied Ergonomics*, vol. 33, pp. 147-53.

Hannan, L. M., Monteilh, C. P., Gerr, F., et al. (2005). Job strain and risk of musculoskeletal symptoms among a prospective cohort of occupational computer users. *Scandinavian Journal of Work, Environment and Health*, Vol. 31, pp.375-386.

Holte, K. A., Westgaard, R. H. (2002). Further studies of shoulder and neck pain and exposures in customer service work with low biomechanical demands. *Ergonomics*, vol. 45, pp. 887-909.

Jensen, C., Finsen, L., Sogaard, K., Christensen, H. (2002). Musculoskeletal symptoms and duration of computer and mouse use. *International Journal of Industrial Ergonomics*, vol. 30, no. 4-5, pp. 265-275.

Kjellberg, A., Toomingas, A., Norman, K., Hagman, M., Herlin, R.-M. et al. (2010) Stress, energy and psychosocial conditions in different types of call centres *Work* 36 (2010) 9–25.

Molinier, P. (2006). *Les enjeux psychiques du travail*, Payot & Rivages, Paris.

Norman, K., Nilsson, T., Hagberg, M., Tornqvist, E. W., Toomingas, A. (2004). Working conditions and health among female and male employees at a call center in Sweden. *American Journal of Industrial Medicine*, vol. 46, no. 1, pp. 55-62.

Richard, D. (2012). Management des risques psychosociaux : une perspective en termes de bien-être au travail et de valorisation des espaces de discussion. Doctoral thesis, Université de Grenoble.

Siegrist, J. (2008). Chronic psychosocial stress at work and risk of depression: evidence from prospective studies. *European Archives of Psychiatry and Clinical Neuroscience*, (Suppl 5), 115-119.

Siegrist, J. (1996). Adverse health effects of high effort low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27-41.

Sznelwar L. I., Le Doaré H. (2006). Alain Wisner: Le développement de l'ergonomie et de la pensée sur le « travailler ». *Travailler*, 1(15), 39-54.

St-Arnaud, L., Marché-Paillé, A., Toulouse, G., Moore, M. (2010). Le travail des préposés aux appels d'urgence 9-1-1, *Travailler*, 1 (23), 9-25.

Toulouse, G., St-Arnaud, L., Delisle, A., Duhalde, D., Lévesque, J., Marché-Paillé, A., et al. (2011). Étude pour intervenir sur la réduction des troubles musculo-squelettiques et de santé psychologique dans les centres d'appels d'urgence 9-1-1: Études et recherche, Rapport R-720, IRSST, 119 p.

Toulouse, G., St-Arnaud, L., Bourbonnais, R., Damasse, J., Chicoine, D. (2006). Étude de la prévalence des troubles musculo-squelettiques et psychologiques, des facteurs de risques physiques et psychosociaux chez les préposés des centres d'urgence 9-1-1. Institut de recherche Robert-Sauvé en santé et sécurité du travail: Études et recherche, Rapport R-472, 75 p.

Vézina, M., Cloutier, E., Stock, S., Lippel, K., Fortin, É. et al. (2011). *Enquête québécoise sur des conditions de travail, d'emploi, et de santé et de sécurité du travail (EQCOTESST)*, Québec, Institut de recherche Robert-Sauvé en santé et en sécurité du travail - Institut national de santé publique du Québec et Institut de la statistique du Québec.

Wisner A. (1995). *Réflexions sur l'ergonomie (1962-1995)*. Toulouse: Octarès.

## APPENDIX A: INTERVIEW CHART

### I- Interviewee

- Name:
- Job title:
- Male/Female:
- Position held:
- Years of experience:
- Prerequisite training:
- Initial training when hired:
- Ongoing training:

### II- Handling 911 calls

- Before discussing the support currently available for difficult calls, can you describe the instructions call agents receive for communicating with 911 callers? (call handling scripts, attitude during a call, etc.)

### III- Difficult call situations

Difficult call situations: arrogant callers, callers in crisis, callers with mental health issues or threatening suicide, calls where the degree of urgency is uncertain, calls where the agent must serve as an intermediary between the caller and the police during a crime, exposure to emergency situations causing high levels of emotional strain, dispatching for infrequent major emergency events

For each difficult call situation, the subjects addressed include:

- Description of the agent's methods
- Instructions and procedures to follow
- Difficulties encountered and the resulting problems
- Support from colleagues, team leader
- Initial training or ongoing training received
- Training satisfaction
- Support unrelated to training (e.g., support during or after a difficult call)
- Desired improvements

### VI – Other

- Are there other subjects that have not been included that you wish to address?

Thank you for your participation



## **APPENDIX B: SUMMARY SHEETS**



## SUMMARY SHEET 1

### Arrogant caller

---

#### PROBLEM DESCRIPTION

- Difficulty taking control of the communication, resulting in increased response times
- Difficulty developing a line of questioning that will clarify the request of an uncooperative caller
- Controlling one's emotions when faced with a rude caller

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Avoid raising your voice
- Let the caller speak first, ask your questions after
- Ask the caller to lower his or her voice, to be polite and respectful, to stay calm
- Do not give an order unless you can state a reason
- Put the call on hold for a short time:
  - Without telling the caller, to surprise the caller, then ask your questions
  - While indicating to the caller that another emergency call is coming in, to lower the tension, although this may also increase caller frustration

#### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Allow your supervisor to listen in and intervene on the call
- Transfer the call to the supervisor or another colleague, if you can no longer deal with it
- Transfer the call to the police constable or refer the caller to the Police Ethics Committee when the rudeness is related to police work
- Tell the caller that if he or she continues to insult you, you will hang up
- Hang up if the caller is extremely arrogant, and then call him or her back immediately, in the case of an emergency
- Give authorization to hang up, if the police are on their way

#### MAIN FINDINGS

- Initial training is limited in 911 call centres
- Lack of ongoing training
- Communication strategies to deal with arrogant callers vary according to situation, agent and call centre

#### DESIRED IMPROVEMENTS

- Integrate arrogant caller management strategies into initial training and conduct practical simulations to give agents tips on how to defuse the situation and maintain control
- Offer ongoing training with group discussions about problem cases



## SUMMARY SHEET 2

### Caller in crisis

---

#### PROBLEM DESCRIPTION

- Difficulty taking control of the situation, resulting in increased response times
- Difficulty developing a line of questioning with an uncooperative caller, which could prevent you from obtaining information pertinent to dispatching of first responders
- Effort exerted to maintain control and avoid emotional contagion

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Maintaining caller attention:
  - Try shouting *stop* to grab the person's attention
  - Speak firmly and deliberately
- Lower your voice to calm the caller
- Whisper or stop talking
- Vary your tone, depending on caller response
- Ask the caller to pass the phone to someone else

#### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Try to obtain essential information:
  - First of all, where to send first responders
  - The existence of potential danger for the caller and the first responders
- Pay attention to what is left unsaid
- Ask for help from a colleague or team leader (limited benefit if they cannot listen to the conversation)
- Inform dispatcher of the caller's state with a flashing message so that police are aware of difficulty obtaining information from the caller

#### MAIN FINDINGS

- Initial training is limited in 911 call centres
- Lack of ongoing training
- Experience using different communication strategies is important
- Limited help available if technology does not allow a third party to listen to the call
- Interest in having a system allowing agents to inform police responders of difficulty obtaining information

#### DESIRED IMPROVEMENTS

- Integrate call handling with individuals in crisis into initial training
- Offer ongoing training with group discussions about problem cases



## SUMMARY SHEET 3

### Caller with mental health problems

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#### PROBLEM DESCRIPTION

- Difficulty taking control of the situation, resulting in increased response times
- Ambiguity of the situation due to caller behaviour and remarks
- Difficulty developing a line of questioning to get information quickly from a caller in a state of confusion

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- There are no instructions to help an agent maintain communication with a mentally unstable caller—even in the procedure manual used in health communication centres
- Agents with practical experience communicating with individuals with mental health problems have different approaches
- If a caller's unstable behaviour is suspected to be a result of intoxication, the agent should ask the caller if he or she has consumed drugs or alcohol, and if so, what substance(s) and how much

#### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Refer to procedure on first responders to contact
- Dispatch to the police if the caller appears to have a mental health problem (in such a case, the police call a specialized organization; if the organization staff is unable to calm the individual and the individual refuses the proposed care, police may have to take him or her to a hospital)
- Dispatch the call to specialized police officers
- Consult the team leader, who will make a decision or consult with the police constable, or dispatch the call to the police if in doubt
- Handle the call like any other call, and note on the calling card the suspicion that the caller has a mental health problem

#### MAIN FINDINGS

- Initial training, instructions and strategies focus on call handling, with little information about this type of caller and the possible communication methods to be used
- Limited specific training; this type of training is not given systematically
  - Training on the subject, paired with suicidal caller management training, was offered only once at some 911 call centres
  - Training in one 911 call centre to raise awareness about mental health problems; the training was given by a police officer specialized in the field

#### DESIRED IMPROVEMENTS

- Training on communication strategies for callers with psychological problems
- How to detect a caller's mental health problem without having to diagnose it?
- Improve relational skills with these people:
  - How to respond without making the situation worse
  - Learning professional tips, what attitudes to use and to avoid



## SUMMARY SHEET 4

### Calls where the degree of urgency is uncertain

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#### PROBLEM DESCRIPTION

- Uncertainty about whether to dispatch the call to the police and what priority to assign the emergency
- Ambiguity about grey zones between civil law and criminal law
- Difficulty developing a line of questioning and making a rapid decision about call context
- Risk of not detecting an emergency situation
- Risk of mobilizing police resources too often for no good reason
- Risk of conflict with a caller who is not satisfied with the agent's response

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Develop a line of questioning based on database contents
- Try to reason with the caller to defuse a conflict between citizens
- Refer the caller to an organization able to handle the problem before dispatching the call to the police
- Avoid giving legal advice
- Explain to the caller that it is not a high-priority call, and that it will be processed by the police when they have time to do so
- If the request is not urgent, explain the role of 911 call services, so that the caller will stop calling without good cause
- Respond to the caller's non-urgent request in order to end the call quickly, avoid a conflict situation and free up the emergency line

#### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Work procedures specify the situations in which the agent must request police intervention, but they do not specify when *not* to request police intervention
- Look at the call location to see if it is coming from an area that is generally known to be calm, or an area that often requires police intervention
- Look at the call history to see if the caller address has a record of emergency requests and police interventions, and if so, the reasons for the requests
- Consult a supervisor or a police officer, if they are available
- Ask a colleague or supervisor; dispatch police if in doubt
- Refer to police services practices, learned through experience (the cases in which police consider intervention necessary or unnecessary)
- Learn to ask questions, check caller history, refer the caller to organizations
- If possible, try to neutralize situations and refrain from giving legal advice
- Referring to police officers on the call centre floor is a way of obtaining a quick response when there is doubt concerning the need to dispatch a patrol car
- Consult a police officer in the building to clarify questions about certain calls
- Dispatch the call to the police without hesitation for certain situations, such as domestic quarrels or callers expressing fear

- Provide videos on relevant topics (e.g., questions about conflicts between landlord and tenant during moving season), prepared with the assistance of a lawyer

### MAIN FINDINGS

- Initial training is insufficient and there is a lack of ongoing training
- Expertise in this field comes with experience
- Colleagues, supervisors and police officers can help agents handle these types of calls, if they are available and have the requisite expertise
- If in doubt, the agent should request police intervention; however, the agent must determine call priority
- Information can be conveyed through videos on topics that are relevant to the time of year

### DESIRED IMPROVEMENTS

- Training to be able to distinguish situations related to civil law from those related to criminal law

## SUMMARY SHEET 5

### Caller threatening to commit suicide

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#### PROBLEM DESCRIPTION

- Trying to prevent the caller from hanging up
- Talking to the caller who is threatening to commit suicide, maintaining communication while waiting for the police to arrive
  - Apprehension about bringing up a topic or saying a word too many, resulting in the caller taking action
  - Difficulty finding conversation topics when trying to stretch the conversation to keep the caller on the line

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Gain the caller's confidence with certain attitudes and verbal behaviours such as staying calm, stating your neutrality, asking the caller's name, using the name when you talk, identifying yourself (even with a fake name), telling the caller that even if he or she does not agree, the police are required to respond
- Get the caller to talk by trying to find subjects that interest the caller, such as: does the caller have children? How old are they? What are the caller's life goals? Does the caller have close family or friends? etc.
- Avoid certain subjects, such as talking about an ex-spouse
- Ask about things directly and clearly, to allow the caller to pull him or herself back together
- Talk about suicide. While it's a common belief that you shouldn't talk about suicide with the caller, agents who have taken training report that it should be discussed, and that it's good to determine if the caller has a plan

#### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Transfer the call to a health centre or a more experienced colleague, unless the caller states a desire to stay on the line with you and threatens to hang up if the call is transferred
- Depending on the emergency priority, you are not obliged to stay on the line with the caller until the first responders arrive; making a decision about this requires experience and good judgement

#### MAIN FINDINGS

- Initial training limited to call handling, which is useful only if trainees perform simulations of these types of calls with a mentor
- A few training modules exist, but:
  - Difficult to find training content adapted to the work
  - Training is not systematic

## DESIRED IMPROVEMENTS

- Significant training needs:
  - Training on how to communicate, how to gain the caller's trust, how to determine when to make a prevention pact, how to stay on the line for long periods
  - Simulation training
  - Training collaboratively designed by agents and specialists
  - Initial training to give new agents confidence
  - Training for experienced agents on how to apply communication strategies
  - Online training by a CEGEP

## SUMMARY SHEET 6

# Serving as intermediary between a caller and the police

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### PROBLEM DESCRIPTION

- Lack of practical experience, as it is an infrequent situation
- Situation is generally dramatic, with high stakes
- High attention requirements from the agent, who must try to understand the caller's statements—which may or may not be clear—and relay police instructions to the caller, making sure they are understood
- Agent's uncertainty about the information received and his or her understanding of police intervention methods

### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Get as much information as possible from the caller

### CALL HANDLING INSTRUCTIONS & STRATEGIES

- Transfer the call to the police (if possible)
- Ask if an investigator is present in the call centre building
- Maintain communication
  - Team leader or department head, who is in contact with the police, helps the agent
- The agent is given the freedom to decide if staying on the line is necessary
- Define the agent's task in these situations: the agent is there to give information to the police and to buy time, but not to resolve the situation

### MAIN FINDINGS

- Lack of information in initial training about communication strategies for this type of situation
- Ongoing training offered in only one centre
- A procedure exists to obtain assistance from a police investigator present in the building
- A procedure exists to transfer the call to a specialized police officer, but it is not always easy to apply, as there is a risk that the caller will hang up
- The need for debriefing with police is rarely addressed

### DESIRED IMPROVEMENTS

- Need to conduct simulations to prepare for this type of event



## SUMMARY SHEET 7

# Taking calls and dispatching for a major emergency

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### PROBLEM DESCRIPTION

- Lack of practice to prepare for a large-scale emergency, which makes agents nervous about their ability to deal with this type of event
- Importance of teamwork to ensure the quality and effectiveness of 911 services for this type of event, which requires:
  - Distributing tasks among agents (responding to calls related to the major emergency vs. calls related to other situations)
  - Planning responses for callers with questions
  - Supporting the agent dispatching for the major emergency

### COMMUNICATION INSTRUCTIONS & STRATEGIES

Strategies to deal with high rates of incoming calls:

- Agents modify their communication methods with callers to reduce call duration
- The incoming calls may all be due to the same emergency event such as a car accident), in which case the agents can modify the call-handling order, prioritizing those coming from other places so as to respond to new emergencies faster

### CALL HANDLING INSTRUCTIONS & STRATEGIES

- In some centres, an operations guide covers emergencies such as airplane accidents, factory explosions, active shooters
- Put together a team that can be on call to mobilize quickly in a call centre
- Designate a specific person (such as the department head) to provide support to the agent dispatching calls during a major emergency event
- Apply procedures (such as fire procedures) for major emergencies, the only difference being the number of responders to dispatch
- Team leader distributes tasks to agents, to avoid doubling up on tasks and to ensure continuity of service for the other calls

### MAIN FINDINGS

- There are major differences between 911 call centres regarding how to address the problem:
  - Training is not a priority for a variety of reasons (procedures in place, unpredictability and infrequency of these types of situations, difficult to simulate reality, etc.)
  - 911 call centres are not often involved in major emergency simulations, as they are usually aimed at first responder teams (call centres receive a single call or engage in passive participation)
  - Major emergency simulations in some 911 call centres (e.g., airplane accident, active shooter in a school) allow agents to put procedures into practice, experience teamwork and discuss the experience after a debriefing session to adjust work methods. Agents see it as useful and motivating

- The advantages of conducting simulations depend on the quality of simulation preparation:
  - Having an established procedure to handle the major emergency
  - Informing agents beforehand of the simulation
  - Designing simulations and establishing procedure that reflect the variability of situations that may occur
- If simulations are too difficult to organize, agents need information about how to apply procedures during specific major emergency events (e.g., code white in a school)

### DESIRED IMPROVEMENTS

- Participate in a code white simulation at a school: student containment, how to follow instructions, etc.
- Occasional practical simulations, updating procedures to consider agent experiences related to the variability of situations

## SUMMARY SHEET 8

### Support after a call resulting in high emotional strain

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#### PROBLEM DESCRIPTION

- Some emergency calls result in high emotional strain for agents, causing symptoms of post-traumatic stress disorder, especially flashbacks
- Agents don't always ask for help, for different reasons:
  - They aren't always aware of the long-term psychological impact of the call resulting in high emotional strain
  - Asking for help is seen as a sign of weakness
  - Asking for help requires the agent to have a trust relationship with the other person

Other obstacles include:

- Different people having different levels of sensitivity to dramatic situations
- Differences in agent experience
  - A colleague close to the agent experiencing emotional strain may not be available
- Some agents don't always accept help from colleagues and can tolerate the problem for long periods

#### COMMUNICATION INSTRUCTIONS & STRATEGIES

- Permission from the team leader to take a break if the agent requires, and if incoming call rates allow
- Help from colleagues to handle the call or talk about it
- If an agent sees that a colleague has handled a dramatic call resulting in high emotional strain, let the team leader know
- Team leaders must be alert to these situations and follow up
- Debrief immediately after the call, if team leader is available
- Team discussion while continuing regular work
- Team leader calls in a replacement if the agent is experiencing very high emotional strain that prevents him or her from finishing the shift
- Pay close attention to new agents, especially when receiving a first dramatic call (first suicide, etc.)
- Debrief dramatic calls at team meetings at the end of a shift or beginning of the following shift
- Ask the agent and team leader to the police debriefing
- Improve the Employee Assistance Program (EAP) to allow the team leader to call in professional psychological support immediately after a dramatic emergency at any time of the day

#### MAIN FINDINGS

- Difficulty recognizing when agents are dealing with emotionally difficult calls for various reasons:
  - Agent's reluctance to appear weak
  - Agent's inability to determine if he or she needs help

- Agent is not psychologically close to colleagues due to differences in sensitivity, experience, etc.
- If the agent needs help, sometimes it is impossible to take a break, depending on:
  - The number of agents on the floor
  - The level of incoming calls
  - A lack of clear procedure
- If the agent needs help, it is not always possible to talk about the call:
  - Immediately after the call, depending on the availability and the psychological proximity of the team leader, other supervisors or colleagues
  - As a group during a calmer period or at an off-duty team meeting before or after a shift
  - Access to police debriefing is not systematic
- Participants mentioned the role of the team leader in staying alert to these calls and discussing them with agents, also pointed out the lack of training in this area
- Some agents expressed a need for stress management training. However, training on this subject is based on cases related to customer service, which is not necessarily relevant to the problems encountered by 911 call centre agents
- Agents should be required to visit a psychologist after an emotionally difficult call
- EAP procedures don't seem appropriate; however, one centre has negotiated an EAP procedure that is adapted to the work context

## DESIRED IMPROVEMENTS

- Give teams time to meet as needed, or once per work cycle
- Get an external professional to open and facilitate discussion among agents
- Establish a clear procedure indicating what to do, how and when
- Give access to a resource person to talk to if needed
- Ask team leaders to be alert to difficult calls; train team leaders in operational and emotional debriefing
- Allow team leaders to meet with agents after an emotionally difficult call
- Make a psychological consultation mandatory after an emotionally difficult call

## SUMMARY SHEET 9

### Team leader support role

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#### MAIN FINDINGS RELATED TO THE TEAM LEADER'S SUPPORT ROLE

- The team leader is a resource that can be used by agents in difficult call situations, for example:
  - Taking over calls from arrogant citizens before the agent loses patience
  - Giving advice when agents are in doubt of the caller's mental health
  - Helping in situations where an agent must act as an intermediary between a caller and the police
  - Leading group discussions after a difficult call situation
  - Responding when an agent indicates that a colleague has just handled a high emotional strain call
  - Giving advice to agents who are uncertain if a call should be dispatched
- Limitations to providing support as a team leader:
  - Workplace technology that doesn't allow team leader to hear calls
  - Team leader is not specifically trained to provide support for difficult calls, to respond to agents dealing with high emotional strain or to lead group discussions about difficult call situations
  - Team leader performs the same work as his or her colleagues *and* manages team administration, especially in the smaller call centres. Team leader is therefore not always available to provide support
  - In some 911 call centres, team leaders are implicated in staff evaluation, which may be an obstacle to agents asking for help

#### DESIRED IMPROVEMENTS

- Define the role of team leader, stipulating that the team leader play an active role in supporting agents when possible
- Train the team leader to provide support for difficult calls, especially:
  - How to take action when an agent is affected
  - How to lead group discussions about difficult calls