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Improvisation and Learning in an Emergency Response Agency

Hyun Hee Park*, Dong Chul Shim**

School of Public Administration and Policy, Kookmin University,
77 Jeongneung-ro, Seongbuk-gu, Seoul 02707, Korea
Department of Public Administration, Korea University,
145 Anam-ro, Seongbuk-gu, Seoul 02841, Korea

Abstract

A qualitative study was conducted to investigate the relationship between improvisation and organizational learning for a case of the Mobile Crisis Team (MCT), a mental health emergency response agency. It is found that two types of improvisation in MCT, such as interactional and role improvisation, require continuous interpretation of subtle signals and redefinition of the roles related to those of other participants at the scene. The analysis also identifies key antecedents such as unpredictability, urgency, flexible role structures, minimal procedures, and available resources. Finally, lessons learned from improvisational activities are integrated into the system through three types of learning: learning by doing, learning by sharing, and learning by collaborating. Based on these findings, this paper suggests that improvisation in emergency response, for which the nature of the work inherently involves high risk and unpredictability, is inseparable from organizational practice. Improvisational action in this organization should be understood as an active sense-making and role-making process by organizational members in the moment. This active engagement of participants postulates that there is shared understanding of role structures within the community of practice.

Key words: improvisation, organizational learning, emergency response, role structure

* The 1st author: Tel. +82-2-910-5481. Fax. +82-2-910-4429. E-mail. hhpark@kookmin.ac.kr
** Corresponding author: Tel: +82-2-3290-2276. E-mail. dcshim@korea.ac.kr

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국문초록

이 연구는 정신건강(mental health) 관련 응급 상황 대처 조직(Mobile Crisis Team)에서 조직학습과 임기응변(improvisation)의 관계를 고찰한 질적 사례연구이다. 연구 결과에 의하면 두 가지 임기응변 유형, 즉, 상호작용적 임기응변 및 역할 임기응변을 발견할 수 있었다. 각각의 임기응변 유형은 위기 상황에서 주변 상황과 주어진 역할에 대한 끊임없는 해석을 요구한다. 이러한 임기응변을 통해 얻어진 교훈은 조직 내에서 다양한 경로를 통해 다른 조직 구성원들과 함께 공유, 학습되며, 시스템의 일부로 내재화된다. 따라서 높은 위험도와 낮은 예측가능성을 수반하는 응급 상황 대응 조직에서는 이러한 임기응변에 의한 학습은 조직 구성원들로 하여금 상황에 대한 판단을 높여주고, 자신의 역할에 대한 정확한 인지를 가능하게 해주는 기능을 수행한다.

주제어: 임기응변, 조직학습, 위기관리, 역할 구조

I. Introduction

Improvisational activities inherently exist throughout organizations with dynamic and complex environments. Extemporaneous organizational action is more commonly observed in front-line work of “high reliability organizations” such as fire departments, emergency medical services, or the police(Weick & Sutcliffe, 2001), since emergency response essentially involves unpredictability. Regardless of the level of detail contained within work manuals, there are always unpredictability in this type of work.

Recently, there has been a growing interest in improvisation in organizational research. Berliner(1994) tried to explain improvised behavior using a jazz metaphor, and Weick(1998) shed light on the potential value of studying organizational improvisation. Beginning with these studies, a number of scholars have studied organizational improvisation. Although it is a common phenomenon in organizational life, research on improvisation in organizations is still in its infancy.

The present study focuses on examining the relationship between improvisation and organizational learning in an emergency response organization in a Northeastern state in the U.S. To understand the integration process of improvisation into an organizational routine in more detail, we conducted an ethnographic study of a mobile crisis team(MCT) in a northeast state. Within this MCT, social workers respond to mental health emergencies and come to the aid of mentally or emotionally disturbed people. We expected that the dynamic of improvisation would be observed more clearly in an MCT, since this type of organization’s work processes are relatively simple, and its structure is more organic than those of traditional large production companies. Thus, the integration of improvisation is more likely to be observed clearly in this context.

This study attempts to answer three following questions: What is the nature of improvisation in responding to an emergency situation? What are the conditions that shape improvisation in this organization? What is the role of improvisation in learning at individual and organizational levels? In order to answer these questions, the nature of improvisation among local government frontline workers was examined, to understand its contribution to organizational-level learning. To our limited knowledge, few studies have examined these dynamics in detail.

The first section reviews previous literature. The second section introduces the method, data collection procedures, and background information about the MCT. The third section presents the major findings of the study, and the fourth section discusses these findings and their implications.

II. THEORY AND RESEARCH QUESTIONS

1. Improvisation in Organizational Studies

Organizational studies traditionally have focused on plans and control over their execution. For this reason, previous literature has paid little attention to organizational improvisation, and considered it to be less important or inferior action that does not require specific skills or knowledge(Crossan & Sorrenti, 2002). Recent studies, however, argue that improvisational action is an essential means to deal with unpredictable events in organizational life(Miner, et. al., 2001; Moorman & Miner, 1998).

Previous literature provides various definitions of improvisation such as “intuition guiding action in a spontaneous way”(Crossan & Sorrenti, 2002: 29), “the degree to which the composition and execution of an action converge in time”(Moorman & Miner, 1998: 698), “practice without prior planning” (Embrey, Gutherie, White, & Dietz, 1996: 22), or “to be highly respectful of form even as it reworks its previous instantiations” (Lichtenstein, 1993: 229). The definitions universally identify three critical dimensions of improvisation: spontaneity, intuition(Crossan & Sorrenti, 2002; Weick, 1998), and novelty(Moorman & Miner, 1998; Weick, 1998). That is, improvisational activity usually occurs in an unforeseen and time-constrained situation that requires an actor to respond spontaneously in imaginative and intuitive ways without prior analysis.

Contrary to common misperception, however, improvised behavior in an unfamiliar or unpredicted setting tends to be more effective when improvisers have rich expertise and

experience(e.g., Borko & Livingston, 1989; Gu, Mendonca, & Dezhi, 2003; Weick, 1993; Weick, 1998; Weick & Sutcliffe, 2001). This statement is particularly true for "high reliability organizations"(Weick & Sutcliffe, 2001), for which mistakes are not normally acceptable, such as fire departments, emergency response organizations, or air traffic control centers. The situations that these organizations encounter often involve high unpredictability and risk. Expertise and past experience not only reduce risk(Weick, 1993; Weick, 1998) but also, more importantly, provide a repertoire of potential improvisational activities.

In organizations for which the nature of work entails risk and uncertainty, improvisation often seems inseparable from practice and routines(Barrett, 1998; Weick, 1998). Instead, improvisation in such organizations requires reinterpretation and sensemaking of task environments in the moment(see Weick, 1993). For instance, in Weick's(1993) study of a wildfire, one firefighter's improvisation that eventually saved his life was based on his accurate and quick judgment of the circumstances, such as the direction of the wind, topography, and other conditions, even though his tactic to escape from the fire was contrary to regular routines.

2. Organizational Learning

Levitt & March(1988: 320) defined organizational learning as "encoding inferences from history into routines that guide behavior". Organizational learning is a field of study that views an organization as an adaptive process in which goals and routines are continuously modified. In an effort to meet new goals, the organization often experiences challenges in maintaining their beliefs and meaning system. Accordingly, it modifies its system to adjust it to the surrounding environment. An underlying assumption of organizational learning research is that a social entity can store and retrieve knowledge even after an individual with the necessary skills and knowledge leaves the organization. That is, an organization can absorb and manage the knowledge held by its members.

This "taxonomic"(Tsoukas, 1996: 13) approach(e.g., Cohen & Levinthal, 1990; Levitt & March, 1988; March, 1991) of organizational learning research, however, has been criticized by social-practice perspectives of learning(e.g., Brown & Duguid, 1991; Brown & Duguid, 2001; Lave & Wenger, 1990; Orlikowski, 1996; Wenger, 1999; Wenger, 2000). The latter argues that knowledge is inseparable from the practice of an organization(Orlikowski, 2002; Tsoukas, 1996). Knowledge is socially constructed, which means that its meaning is continuously negotiated by the members of

a social entity, and, accordingly, it is fundamentally relational(Lave & Wenger, 1990). From this perspective, knowledge is inseparable from the practice of an organization. It also cannot be distinctively categorized—such as into tacit and explicit knowledge—and transferred(Brown & Duguid, 1991).

Knowledge in practice, therefore, is constructed by the members of occupational communities(Orlikowski, 2002). For this reason, this line of study essentially assumes human agents' active engagement in the practice and creation of meaning systems within organizations. In this sense, learning is eventually the process of "becoming an insider" rather than learning what to do(Lave & Wenger, 1990), and it must integrate an organization's meaning system, practice, communities, and identity into a system(Wenger, 1999). The present study largely follows the tradition of the social-practice perspective of organizational learning.

3. Organizational Improvisation and Learning

The relationship between organizational learning and improvisation has been discussed in the literature for the last decade by a small number of organizational scientists(e.g., Barrett, 1998; Chelariu, Johnston, & Young, 2002; Crossan & Sorrenti, 2002; Moorman & Miner, 1998; Orlikowski, 1996; Tsoukas & Chia, 2002). The discussion proposes the three following insights. First, improvisation can cause organizational learning when it changes cognitive structures within an organization(Crossan & Sorrenti, 2002). "Experimental learning" by improvisation(Crossan & Sorrenti, 2002) is learning in which behavioral changes precede changes in cognitive structures. Normally, in the context of organizational learning, it is assumed that behavior will change if cognitive structures are modified. In contrast, this argument suggests that improvisation encompasses continuous modification of action based on evaluation of past activities, which enables an organization to accumulate knowledge and modify assumptions about the nature of its business(Chelariu, *et. al*, 2002).

Second, learned insights from improvised action are stored within organizational memory and can be retrieved when needed(Moorman & Miner, 1998). Moorman & Miner (1998) particularly propose that procedural memory provides an enlarged repertoire for improvisational activities, while declarative memory enables an improviser to make sense of a situation. In their later study, Miner, Bassoff, & Moorman(2001) expand this argument to organizational learning, by suggesting that organizational improvisation is a distinct type of real-time, short-term learning that affects

long-term learning.

Third, while previous discussions view learning as the outcome of improvisation, a few studies regard improvisation as the result of learning(e.g., Barrett, 1998; Gu, *et. al.*, 2003; Weick, 1993; Weick, 1998). For instance, Gu, *et. al.*'s(2003) study of improvisation in an emergency suggests that experts and novices search for similar patterns of information in an emergency situation. However, experts find necessary information more effectively and efficiently than do novices. Experts also come up with better and more feasible action plans to respond to emergencies than do others. These findings imply that experts have a better ability to analyze and integrate pieces of segmented information and that previous learning and experience clearly play a role in improvisation.

4. Research Questions

This paper examines the role of improvisation in the response of a Mobile Crisis Team(MCT) to an emergency situation. In the previous literature, research and development departments were typically examined. Thus, the nature of improvisation might have been different from that of the organization studied in this paper. For instance, in the present study, distinctive types of learning may not be identified, such as improvisational learning, experimental learning, and trial-and-error learning as suggested by Miner *et. al.*(2001), since it may be hard to differentiate the nature of the tasks into those three types of activities. Moreover, considering that improvised action is greatly influenced by the organizational context and problems that the organization faces, it is valuable to explore the conditions that shape improvisation in emergency response. For this reason, this paper attempts to answer the following research questions with the core theoretical concepts discussed previously as a starting point:

RQ1: What is the nature of improvisation in responding to an emergency situation?

RQ2: What are the conditions that shape improvisation in this organization?

RQ3: What is the role of improvisation in learning at individual and organizational levels?

II. Methods

An ethnographic study was conducted in the present research. A mobile crisis team(MCT), or an emergency response agency was specifically selected as a sample organization to examine the role of improvisation in organizational learning and the effectiveness of emergency response. The data collection included interviews, observations, and archival data of an MCT from a county in a state in the Northeastern U.S. The organization consisted of eleven staff members: five on the day shift, five on night shift, and one on evening shift. We conducted interviews with nine of these staff members—four on day shift and five on night shift—and the coordinator of the agency. The nine participants were our key informants for the preliminary findings presented here. One informant had worked for three months in the agency, three for about one year, two for more than ten years, and the other two for about twenty years. The coordinator of the program had five years of experience.

We interviewed each participant at least once; one was interviewed three times, and most other participants were interviewed twice. Each open-ended interview lasted 60 to 90 minutes at the office of the participant. We generally started by asking them 1) to explain what they normally do, 2) to describe their work process in detail, and 3) to give examples of their most memorable cases in detail. With this broad structure, the authors gathered information about cases and general information about the history of the MCT. To prevent interviewees from being influenced by our research purpose, we did not use the word "improvisation" when we asked questions and focused on asking about their work practice.

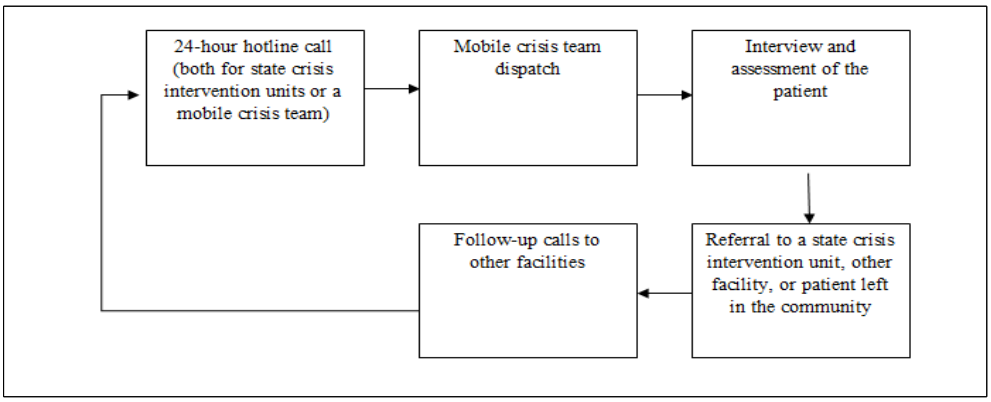
The observations analyzed in the present study are restricted to work behavior in the office, and do not include observations from the field. Although we could not directly observe their emergency response behavior, we could observe how they followed up with patients, how they shared their knowledge or experience, and other aspects of their work life at the office. Archival data included the history of the organization, internal documents such as mental status examination forms, risk assessment tools, follow-up forms, mission statements, and other types of report forms.

For the analysis of our data, we used grounded theory approach(Strauss & Corbin, 1998). We transcribed interview transcripts as verbatim as possible and used an "open-coding" scheme for our analysis. Two authors coded all transcripts separately and later discussed each other's findings to avoid researcher bias.

III. Background Information

A mobile crisis team was formed in June 1975 by the Department of Mental Health. In 1975, an emotionally disturbed person(EDP) was acting out in the community in the form of schizophrenia. The county police tried to persuade him but could not communicate with him because of little support from clinical staff on the scene. The situation escalated when the police thought that the person was armed with a fire gun and was threatening the police. Finally, the police shot him. After he died, the police found a small toy in his hand instead of a gun. There were many outcries from the community. Subsequently, the Department of Health found that there were no guidelines for mental health emergencies, and that the police did not have the capacity to deal with EDPs. Out of this crisis, the county formulated the Mobile Crisis Team(hereafter MCT) to help police in mental health emergency situations.

<Figure >1 shows the general process of mental health crisis intervention. Although the MCT operates under a local government, the MCT's office is located in, and majorly collaborates with, the state crisis intervention unit. They share a communication line and transfer calls to each other according to the request and situation of the patient. When there is a dispatch call from the police, a patient's family, or directly from a patient, selected MCT staff members go to the site. Two staff participate as a team in the field, and the role of each person is decided in the field according to the situation. One of the staff members usually interviews the patient to determine the problem, and the other team member communicates with family members or other involved individuals. Thus, the role of the dispatch team is flexible depending on given circumstances and previous rapport with the particular patient.



<Figure 1> The Service Process of the MCT

At the scene of a mental health crisis such as a suicide attempt, a hostage situation, or a drug-related situation, the main role of the MCT is to assess the mental status of the patient. Symptoms and behavioral patterns are assessed with the aim of determining what is best for the patient and the community, that is, whether the patient is safe to stay in the community or needs to be institutionalized. Each MCT dispatch team examines a patient based on the Mental Status Exam(MSE), which is a psychiatric measure developed for such situations that is used nationally and includes 11 domains of psychiatric symptoms.

Since MCTs do not have the authority to make a final decision about whether patients should be institutionalized, they advise the police about the status of clients. In most cases, police officers agree with the opinion of the MCT. If there is a strong disagreement between police officers and MCT staff, the coordinator of the MCT might issue a "pick-up order" that forces patients to return to the crisis intervention unit. Through this process, patients may be left in the community, brought back to the crisis unit, or referred to other appropriate facilities. The MCT examined in the present study had eleven members and three shifts. Five staff members were assigned to the day and evening shift, and one was assigned to the night shift.

<Table 1> MCT Routines and Improvisation Issues for Each Routine

Routine	Improvisation Issue	Example
24/7 hotline call	• What resources does the MCT currently have when they get a call? • Who can attend the call? • Which patients are more at risk among incoming calls?	"We need to be able to listen to multiple things at the same tim e… So what you are trying to do is, of course, you are trying to be attentive when you are on the phone, but be aware that your partner or a teammate, or other individuals are on the phone, and now you know that the other teams are out there… So you don't tell your patient, "Oh, yeah, we will be right out." Because they may decide that this person is experiencing stress about some of their symptoms, and is feeling anxious, but does not have symptoms of being suicidal. So, that person is not the person to whom we are going to respond. And this person has a different level of symptoms. So you have to attend to all of that."
Mobile crisis team dispatch	• Who will participate in the current crisis situation? • Regarding the collaboration with other agencies such as police officers, EMS, and fire fighters, who will take the lead at the scene? • What will be the MCT's role in the current crisis situation?	"So, they [police] are going to be there quicker than we are, since for most of the agencies in this area, we work with seven different law enforcement agencies, 7 or 10, maybe more than that. And in this county, they have learned a certain amount of skills from us about how to approach someone, you know if we are not there. So, they have gained a certain amount of comfort in having watched us, and they feel if we are not immediately there, they can start to talk to someone. And they won't wait. And actually we will let them know on the phone. I really think, "Don't wait for us, go in, and do it." And they take the direction from us."
Interview and assessment of patients	• What is the patient's problem? • How do MCT staff members adjust their tone and tactics to communicate with patients?	"It is a very delicate process… How am I gonna adjust my tone? What tactics am I going to use? How am I going to get the police to agree with me? It is a very quick learning process. Most people say it takes about a year to be really solid…. You have to really be on your game. You should be always aware. You should take everything in and change if you need to. So, it is a very fast phase."

<Table 1> MCT Routines and Improvisation Issues for Each Routine (Continued)

Routine	Improvisation Issue	Example
Referral to a state crisis intervention unit, other facility, or patient left in the community	• Which place is most appropriate for the patient? • Which institutes have enough resources to accept incoming patients?	"Last week… it was very busy. When I say busy, I mean, the number of patients coming through was very high…The crisis unit in which we are based, they usually can hold about… I would say 10-15 patients comfortably. But, they had at one time 23-24 patients… They actually went on partial diversion, meaning that they accepted no referrals from the city medical center. And that is the main referring outside facility… Occasionally, other emergency rooms, especially CITY Med, went on diversion, meaning that they were not accepting any further cases in their emergency rooms. Then, you have to go to other hospitals. But we actually for the first time said, 'No, we do not accept any referrals.'"
Follow-up calls to other facilities	• Who will do the paperwork? • Is it possible to change the process of regular checkups for clients who are currently acting out?	"We will call the doctor, 'Hey Doctor Smith, we saw your patient Jane Do last night, and these were the concerns so she is remaining in the community, so we are hoping that you expedite the appointment so that you can see her more quickly. Or, we actually brought her into the crisis unit or she had suicide attempts so we want to know whether she took an overdose of her mediations etc…'"

<Table 1> shows the MCT's work process from receiving a call to documentation. In the product or research development processes of private companies, organizational improvisation may be easily distinguished from routine practices(Miner *et. al*., 2001). However, in mental health crisis interventions, improvisation has been found to be highly integrated into organizational routine. While the basic MCT process depicted in Figure 1 may be present for every MCT routine, several improvisation issues can be identified for each process. For example, in dispatching MCT to a scene, staff must decide which MCT staff member should participate, with whom they should collaborate, and who should lead the scene. In interviewing patients, they need to adjust their tone and tactics based on the reactions of patients. Thus, the entire work process is complete when MCT staff members adopt appropriate improvisations.

IV. IMPROVISATION IN MOBILE CRISIS TEAM

1. Forms of Improvisation

1) Interactional Improvisation

Improvisational action in this setting requires very close and continuous interaction with patients and is shaped by interpretation and observation of the signals and cues gained from the

interaction. A typical emergency case that MCT deals with takes about two hours, while a high profile case takes three to four hours to be resolved. During this period, the team of social workers has to assess the mental status of the patient and judge whether the person must be institutionalized. While the social worker interprets the information and cues, s/he simultaneously improvises new ways to communicate with the patient. Feedback from the patient immediately informs the social worker whether his/her new idea works or not. Therefore, improvisation in this setting requires continuous modification of assumptions that the MCT members have about the patient. In this sense, improvisation in this setting is very interactional.

Improvisation at a crisis scene is at the heart of work done by MCTs, due to the high level of unpredictability. Until team members of an MCT arrive at the scene after they have received an emergency call, they do not know the patient's problem or the level of danger in the situation. In most cases, patients under emotional distress refuse to talk to anyone. In order to ensure safety under certain dangerous circumstances, the first hurdle for any staff member of an MCT is to get the patient to talk and build immediate rapport. Staff should have negotiation skills and be flexible to use various tactics and styles depending on the patient. For instance, substance abusers in domestic violence situations would be handled differently than troubled high school students. More importantly, MCT staff should be able to interpret subtle cues and contextualize their knowledge for each case, just as jazz musicians improvise their repertories based on given chords and rhythms interacting with other performers(Berliner, 1994; Weick, 1998). If the social worker is rigid and persistent with a certain style of interview, the patient might refuse to communicate from the beginning. For this reason, the respondents of this study emphasized that they should be ready to improvise and know what they can do with the patient to resolve the situation:

> I think it [improvising at the scene] is a combination of the right type of flexibility and personality. Because, if you are very rigid, and if you want just A, B, C, D, this is not the job for you. Sometimes it is X, A, B, J. You know, although we are doing the same thing over and over again, suicidal, homicidal, psychotic, it is always different because the people are very variable. So flexibility should be there.

> We [MCT] do the bargaining. "What is it going to take? We want you [the patients] to tell us a story. We want to listen to that. What is it going to take to get you down?" "I want to talk with my mother." "All right, we will talk to your mother. If you want to talk with your mom though, you have to come down to

> this part of the roof." You don't want to give them everything because it might be enough for them to say, "Now, I am ready to jump or shoot myself." So… it requires being a very good negotiator and being very subtle.

Once the dispatched team succeeds in the initial communication, the team needs to examine the mental status of the patient, which involves continuous improvisation. The Department of Mental Health provides the MCT with three assessment tools including the Mental Status Exam(MSE), an alert predictors form, and a risk assessment tool. The informants stated that a couple of inexperienced social workers in the MCT tended to ask evaluation questions as they were written on the assessment form and that this was not desirable. A mentally ill or emotionally disturbed person under these circumstances is very vulnerable and extremely upset and does not want to be treated as "[a] crazy junkie." This person wants to be heard by someone in the way that s/he wants. Therefore, the social worker needs to decide how to obtain necessary information from agitated patients, guided by the three tools. Essentially, MCT staff need to understand which information and cues are important or not, to maintain the conversation. Staff needs to pay very careful attention to all contextual cues and signals to secure communication channels and eventually assess their mental status. Common tactics for interactional improvisation include adjustment of tone, vocabulary, interpretation of subtle cues, and so on:

> We should have a good sense of what is working with this [emotionally disturbed] person and what is not. Some people can be very agitated if you talk like a clinician. So, "[softly] What is going on today? Tell me more about your problem," and sometimes, I should say using more street words, "What's up? What's going on? You look like shit today." I even use some curse words, to kind of say, "Hey, I am at your level."… Sometimes, this will work, but sometimes, it does not. So, you have to switch very quickly… like hot and cold. "So, how is your wife?" Then, if suddenly he says, "That Bitch! Blah! Blah! Blah!" Then, bad! Bad! Bad! Get away from it! Switch! ... If you cannot pick up on those subtle cues, then it gets more complicated to talk with him cooperatively, when you sit there and talk and point out the kinds of things that are agitating him and irritating him... It is not something you would learn from a teacher at school.

We view spontaneous adjustments as improvisational activities, since they entail novel applications of existing practices based on continuous reinterpretation of situations. Weick(1998)

classified improvisational action into *interpretation, embellishment, variation,* and *improvisation* depending on the degree to which an improviser uses imagination and concentration. While minor interpretation and application of extant skills(embellishment) are commonly found in an MCT, improvisation as a full transformation of normal work routines is less likely to happen in this work environment. This is not a surprising finding, when we consider the nature of the work done by an MCT. Unlike a jazz performance, extemporaneous action in a mental health emergency is necessarily more conservative and risk avoidant, since it could put one's life in danger. At the same time, improvisation is an essential part of the highly unpredictable nature of the work done by MCTs. Ironically, the more risk a case involves; the more impromptu actions are required to resolve the crisis. That is, the patterns of low profile cases are quite well known and members of the MCT have experience with them; in contrast, those of high profile cases are not.

In a highly uncertain situation, human beings tend to make decisions based on their own experiences to avoid taking risks(Weick, 1993; Weick, 1998). Improvisation is also bound by the individual's retrospective memory, as suggested by Weick's(1993) case study. On the other hand, Miner, *et al.*(2001) found that organizational improvisation is influenced by prospective as well as retrospective memory. The results of our study suggest that retrospective memory plays a critical role in improvisation, whereas we could not find any use of prospective memory. Due to the risks and uncertainties of each case, MCT staff members believe that their field experience is the only source for building their expertise. They view their improvised behavior as a continuation or application of their experience, rather than a completely innovative idea.

This demonstrates the link between organizational memory and improvisation. Although MCT staff members greatly depend on each individual's field experiences in resolving a crisis situation, they also use collective memory. In this way, they use ideas from other members' experiences during improvisation and keep track of patients' documents in case of potential incidents in the future. Organizational memories such as stories—whether successful or not—and the history of patients serves to enlarge the repertoire of MCT staff.

> I think we always say that the best predictor of future behavior is past behavior for everything. That has to do with the violence. It has to do with the symptoms. It has to do with the medical issues. So, it's a nice idea that…if we know the patient historically, it is a good predictor. It is not an absolute fact that someone who was assaultive is always going to be assaultive, or someone who was not assaulted in history will not assault others today. So, nothing can categorize people as absolute, but the history helps us… So, what we do is that we pay attention to specific

medical conditions that could affect medical status and family domestic issues that could cause stress again and affect their symptoms, and we categorize them and keep their records with us.

We expected that keeping histories of patients minimizes risk and uncertainty, and, as a result, reduces improvisational action in emergency response. On the contrary, improvised actions are more frequently used by experienced staff members than by novice members. In an effort to understand this discrepancy, we found that an individual's perception of improvised action could be different from that of an observer. The more cases a social worker experiences and observes, the more improvisational activities are perceived as daily routines rather than creative and spontaneous reactions. At the same time, this behavior is perceived as very improvisational to other members or observers. Perceptions of high profile cases reflect this idea. For instance, a staff member with 22 years of experience stated that she had only 1 or 2 high profile cases a year, whereas a staff member with five years of experience responded that he had already had several high profile cases in the last month. This finding tells us that improvisational activities can be defined differently by actors and by observers. In addition, having a large repertoire alleviates emotional tension of the improviser.

2) Role Improvisation

The main actors in a mental health emergency include the police, emergency medical services (EMS), and a dispatch team from the MCT. Sometimes, the scope of collaboration is expanded to include psychiatrists, other agencies, or even the patient's family members and friends. The field manual describes each actor's role and operation protocols in detail. Among the roles at a crisis scene, the MCT is officially in charge of mental status examination, referrals, and assisting the police with negotiations. MCT members also share responsibility for receiving emergency calls, collecting information from family members or neighbors, and completing documentation with the police(<Table 2>).

<Table 2> Agencies' Formal Responsibilities and Actual Roles at a Crisis Scene

Role	Police		Mobile Crisis Team (MCT)		Emergency Medical Services (EMS)	
	Official Role	Observed Role	Official Role	Observed Role	Official Role	Observed Role
Emergency Call Reception	C	C, S	S	S, C		
Organization of a Dispatch Team	C	C, S		S		
Safety Clearance	C	C				
Command of the Operation	C	S, A		A, S, C		
Information Collection	S	S	S	S		
Negotiation	C	C, A	A	A, C		
Mental Status Examination		A	C	C		
Medical Assistance					C	C
Referral	C	C	A	A		
Closing a case	C	C			A	A
Transportation	C	C, S		A, S		A
Documentation	C	C, S	S	S		

※ Note: C: In charge of, A: Assistance, S: Shared responsibility

However, the findings of this study illustrate that actors are engaged in more active and broader roles than those dictated by official routines. In the process of responding to an emergency, role improvisation constantly occurs among actors, especially when the information provided by the phone call is insufficient to judge and prepare for the situation. Instead of following official routines, they follow their intuition and let the situation lead their action. For instance, the MCT often receives phone calls regarding domestic violence that may involve drug or substance abuse, ADHD, ODD, or other types of mental health issues that require MCT's engagement. The nature of the case is often ambiguous, in terms of whether it is a mental health issue, since the caller may be in immediate danger or too agitated to provide enough information over the phone. Sometimes, it is clear that the case is probably not suited to the MCT. In this case, the MCT can simply transfer the call to the police and let them take care of the issue, if the agency follows the formal routine. However, the MCT often sends a team to the scene immediately in case the police needs help. In addition, unless someone has a weapon, MCT staff normally lead the situation. If the patient is holding a gun and is considered an immediate danger to others including members of the MCT, then the police would lead the situation. Sometimes, if the patient asks for a female officer and one is not readily available, then a member of the MCT replaces the role of the female officer.

<Table 2> compares the main actors' formally assigned roles and those actually performed and

improvised. The table demonstrates two findings about the role improvisation in this organization. First, the improvised roles are not a random combination of activities. As Johnson & Johnson(1988) suggest, the role is improvised within the scope of roles that they are actually able to handle. Although the police and MCT have different expertise in dealing with crisis situations, they share some parts of their expertise. On the other hand, EMS is unique in having medical expertise that other players do not have. For this reason, role improvisation only occurs between the police and the members of the MCT.

Second, instead of following official routines, role behavior during a crisis tends to be determined by three grand criteria at the scene: 1) safety comes always first; 2) save patients first and report later; and 3) use any available resources at the scene. All other issues are subordinate to these grand rules. In an effort to resolve crises, role incumbents are actively engaged in reinterpretation and restructuring of roles(Powers, 1981). The following excerpt shows this mechanism:

> It is true partnership. When they go out to a scene, the roles are decided. We don't micro manage. We do a lot more, you know,…so people say, "Why don't I do an interview with the patient and why don't you work with the family or police" or whatever. Or, we start with the initial info gathering together, they get a report for an individual, and then move on to the patients. So, it is very depending on what the needs of patients are. It is dictated by patients' needs. They take all the information, and determine the appropriate outcome, which means that we bring the individual back here. Sometimes, we transport the patients. That decision is always made keeping safety in mind. As you operate as a team, the standards and practice of the team are…if one person does not feel comfortable, we do not transport. It does not matter whom, it does not matter the reason. If that individual says, "you know I am hesitant to transport this individual." It's done. We don't transport. The police will transport this individual or an ambulance will do it, or their cars, whatever. So, safety is most important. We hope it has a rational basis, but it doesn't have to be rationalized to the other person. That person comes back to work and does the paperwork. And the paperwork is basically decided upon… There is clinical assessment paperwork and there are other kinds of logging and tracking information, statistical sorts of information, follow-up information. It has to go on in separate places.

The data imply that role improvisation in the MCT is facilitated by its organizational members' strong professional identity as social workers. They truly believe that they bring benefits to society by helping mentally disturbed people. Most social workers in the MCT must have one or two additional jobs to keep their job, since they cannot make enough of a living from this job. Instead of leaving the organization for a better job, staff members hope to stay there because they believe that the job is "extremely rewarding" and brings them "personal growth." They do not hesitate to receive an emergency call in the middle of night when they are at home with their family. They are proud of saving people's lives and listening to people who have emotional or mental problems. Due to the existence of such a strong professional identity, MCT staff can put "saving people's lives" as a first priority above bureaucratic procedures such as documentation or jurisdiction issues.

2. Antecedents of Improvisation in Emergency Response

Based on our data analysis, we can extract key contextual and organizational conditions that are necessary for the emergence of improvisation in responding to an emergency. The work of the MCT is greatly bound by the situation itself. For this reason, contextual conditions including unpredictability and urgency give the MCT the legitimacy to improvise actions to deal with crisis situations. These are not sufficient conditions; improvisation also assumes organizational conditions such as flexible role structures, minimal procedures, and available resources.

1) Contextual Conditions

(1) Unpredictability

The MCT's work involves great risk and unpredictability. A response team normally does not have complete information about the patient and the situation. Even after the team arrives, it takes time to identify the issue of the patient and the team cannot be sure what is going to happen in the next moment. The only way the team can get information is through communication with patients who are usually uncooperative. MCT staff members make sense of the situation with limited information about patients and determine solutions both for patients and the community. Due to such highly uncertain situations, work plans evolve as MCT staff members interact with patients, considering various factors as risks and resources available at the

scene. The following quote demonstrates this uncertainty at a scene:

> In the MCT, you really don't know what will happen. You can get a hostage, or suicidal situation. Or, you can just have a regular ordinary day. You never know what is going to come out when you are on a call…Once we talked to this guy for over an hour, and usually maintaining a conversation for that long of a time is a good sign. But the next moment, he turned around and jumped…So, every day, we have a story, and you will never get bored, and you cannot have a perfect plan before you go out there either.

(2) Urgency

At the same time, the urgency of a situation gives this agency legitimacy to improvise an action(Crossan & Sorrenti, 2002; Weick, 1993). Responding to a mental health emergency requires immediate action to save one or more people's lives. This justifies behavior beyond the routines of the organization. The following example illustrates the urgency of the situations that the MCT deals with:

> An individual called and indicated that he had hurt somebody. That he was not necessarily the individual, but at the end, he did not identify himself, and he did not identify the location, but specifically said that he hurt somebody. It was really an urgent situation, "Well…who did you hurt? Is that person still alive?" and there was some stress in that person's voice and my staff asked this person, "Are they alive, or are they not? Where are they? What are they doing right now? Are they conscious?" "Yes." It grew to "We do offer mental health services, we can come out, and we can help this situation. You can talk about it. We can give you support." The person declined that. We told him to call back. He still would not identify himself and would not give his phone number, would not give his address. He did call back. And with agreement, we pushed this individual to identify himself and to get the address.

2) Organizational Conditions

(1) Flexible Role Structure

Our data analysis revealed that a flexible role structure is a critical condition for this organization's improvisational action. As described previously, actors are able to stay engaged in

finding their necessary role in the moment, since they keep the three grand rules in their mind instead of simply following the order from top to bottom. In an effort to find their roles, they continuously reinterpret and restructure their roles within the context and within the relationships with other actors who are involved(Powers, 1981). As a result of this sensemaking process, the actors extend their roles to what is needed in the moment.

This condition is particularly important in the MCT's work context. If the police and the MCT try to maintain boundaries for their work, or if they fight for jurisdiction issues, they might be unable to save patients and eventually put the community in danger. In particular, the MCT does not have legal authority to send a patient to a mental institution. The police or the psychiatrist from a mental hospital has the authority. In the situation, if one of the actors does not trust others' judgment and is persistent with his or her own opinion, the crisis cannot be resolved effectively.

(2) Minimal Structure of Procedures

Similarly, minimal structure of procedures facilitates the MCT's improvisation. Public organizations are often bounded by very detailed and strict procedures mandated by law. However, the MCT gives field social workers more discretion about their activities owing to their highly unpredictable work environment. There is a tacit agreement that "we [MCT] do not micromanage our people." Protocol provides a general guideline, but the individual staff's discretion runs the actual implementation of the process. They consider this discretion the "individual's style" for handling cases.

(3) Available Resources

The necessity of the MCT's improvisation is largely determined by available resources at the moment of the crisis. For instance, the day shift has more resources than the night shift of the MCT. While the day shift functions more as a directory service connecting organizations and acting as case managers, the night shift functions mostly as an emergency response team. When staff members receive an emergency call during the daytime, they can simply transfer it to other appropriate agencies rather than going out into the field by themselves, since there are a number of other agencies or organizations that can handle the situation. They avoid taking risks by dealing with the situation and avoid breaking rules and routines in handling the cases. On the other hand, the MCT is the only organization open 24/7 in the area; the night shift staff members have to dispatch a team to the scene as soon as they get a call, since there is no available

organization except them. The night shift is more actively engaged in crisis situations and ruthless to take risks to save people. As a result, improvisational behavior occurs more frequently in the night shift's activities.

3. Improvisation and Organizational Learning

The following section describes how improvisation affects organizational learning in this study. In Miner et al.'s (2001) field study, improvisational learning, or short-term learning, develops into long-term learning through trial-and-error. Similarly, improvisational learning in our study is largely real-time learning, which is similar to the findings of Miner et al. (2001). On the other hand, the lessons from improvisational learning are integrated and institutionalized into the system by: 1) learning by doing, 2) learning by sharing, and 3) learning by collaboration.

1) Learning by Doing

Learning by doing is a major means of socialization for the MCT's newcomers. They need to learn how to communicate, assess, and choose the best solution for both mentally and emotionally disturbed patients and the community. When newcomers enter the MCT, they receive a two-day official training program that teaches them diagnosis skills for specific mental illnesses and symptoms and basic guidelines about paperwork. After the training, new social workers shadow and observe more experienced staff for a couple of weeks, and then are allowed or ordered to participate in fieldwork directly. Considering the enormous responsibilities that they need to take on, which might cost a person his or her life, this is an insufficient amount of training. However, MCT staff members truly believe that newcomers can only acquire the required skills and knowledge through on-the-job training, or field experience.

A vivid example of learning by doing is depicted in Table 3. In this case, a new social worker had only been there for three months, but she had to lead the scene since the patient needed a female counselor. She did not have the slightest idea of what to do at the moment and had to improvise everything mostly based on her intuition. In this way, she could learn what she did right or wrong. In this organization, no one tells people how to do their job. A relatively new staff member reports, "Everyone has to have their own style. It can be challenging to learn what you have to do in your own style…but that is the requirement to be here." For this reason, the

skills or so called “own style” are not written in any manuals provided by the state or county government. They are built based on improvised skills and experiences. Throughout improvising their behavior, organizational members of the MCT build relevant skills and enlarge their various repertoires. In that sense, “own style” essentially implies improvisational skills and styles. In the process of developing their own skills, staff members are socialized and retrospectively make sense of cases that they have dealt with. One of the informants who had been working for the MCT for about twenty years explained the nature of their learning as follows:

> I told every new person that I cannot teach you this job. You have to do it. I can teach you how to do paperwork. I can help provide good content and flow of information when I go to read it. I can tell you what to look for with the basic mental status exam … thought processes, interactions, something like that. But as you do this job, it is totally time that teaches you to be proficient at this job. And I still grow with this. I go out every day with the call…I am thinking of one client. He trained me. I remember one time we had a girl [newcomer]. And he [the patient] says, “Oh, you got a new person. I will train her for you.” And you are right. Patients know. They are just as involved in… part of our learning and what is going on….You build this relationship. Even though this is a crisis, and I do not have clientele, I am working without appointments like therapist sessions, we get to know each other. And we do! We grow up together in this way.

Learning by improvisation in the MCT is real-time learning(Miner, *et. al.*, 2001) and eventually builds one’s cognitive structures. As discussed previously in this paper, improvisation in this organization greatly depends on the interaction with the patients and involved actors such as police. At a scene, social workers need to learn instantly what subtle cues and signals tell them and figure out what to do next in the moment. Real-time learning by improvisation accumulates in one’s repertoire and builds one’s cognitive structures through long periods of field experiences. Therefore, tenure in this organization means the level of cases that you can handle. For instance, a high profile case such as a hostage situation or suicidal patients in a public place is assigned to the most experienced employees. The fact that everybody in this organization remembers others’ month/year of entry, as well as their own, explains the emphasis on an individual employee’s field experience.

<Table 3> An Example of an MCT's High Profile Case

When I was very new, we got a call. I started in May and this was in July. So, I was very new. We were called in. We didn't know anything. We just came to this address, which we love, because it means an adventure. What is going to happen? Who's there? What's going on? Suicidal? Psychiatric? We were very excited.
We pulled off. My partner has been there now for 19 years, this week or next week. At that time, he had been there for ten years or so. People really greeted us. They said, "Oh, We are so glad that you came here." "Wow, people really love the MCT." I was still very new and I thought, "Hmmm, it is cool." They said, "He (the patient) only wants to talk to a woman." So, I looked around and thought, "Is there another woman here?" I had been there only a few months, and I really did not know what I was doing at that time. I was very scared, because I was not confident yet. So, I was like "Bob….Do I really have to…?" Bob said, "OK, Go ahead." "What do you mean go ahead? How can I talk to this guy?" and it turned out that… I don't know how the police got involved. I still don't know. But, he was in a bedroom on the third floor. And, he had a large kitchen knife with him saying he was going to kill himself. I think he had been drinking a little bit. And, basically, they wanted me to go and talk to him if he would give the knife up.
You can imagine it. My legs were shaking going upstairs. I said to Bob again, "You can't make me do this," and I also talked to the police, "Don't you have any female officers? Isn't there anybody else? I have only been here for three months." Actually, I had worked actually in mental health for some time, maybe about six or seven months, but that's different. So, what they had done was to set up a chair, and they had four police officers behind me with the chair. And he was sitting at the end of the bed with the knife. Maybe six or eight feet away.
So I sat down, and said, "What's going on today? Why are you so upset?" But, my voice was shaking and my legs were shaking. I talked to him for some time, and he had relationship problems and things like that. And eventually I said, "You know, the knife is making me really nervous. I want to talk to you, but the knife is making me very nervous." So he looked at it and he picked it up, and all the officers on the shift said, "Put it on the ground." And then police said, "Kick it over here." And everybody in the room said, "SLOWLY." And he did it. He kicked the knife over, and the officer picked it up, and took it out of the room. So, I went back to say, "I am much more comfortable now." I just tried to reassure him that he did the right thing. And he said, "Well, I could pick up this TV and throw that." And he stood up. And he walked to the television, and the next thing you know… The police grabbed him and handcuffed him.
But one of the problems was when he got in the ambulance. We put him in the ambulance to transport him safely. Sometimes, we will put them in our car. Sometimes we put them in a police car depending on the situation. But in this case we had an ambulance stand by just in case. And the ambulance had sirens. Since I was still new, we had never used sirens before. Bob said, "Call the hospital. Tell them to put the cuff on him." I said "OK, but how am I supposed to cuff a guy like that?" That means medication ready, and restraints ready, whatever you need. Be prepared in case the guy got out of control.
What happened was he started going crazy. In the ambulance, even though he was handcuffed, he started getting physically aggressive. That was why we threw him in the ambulance. We don't have siren on our car. So we were speeding and trying to follow the ambulance. When we got there, we immediately put him into restraints. What an hour this has been! And I went to the bathroom. Oh my Gosh. He got out of the restraints! Usually, we check the person every fifteen minutes after he is sedated. But he managed to get out in the meantime, and was standing there. And I was like, "What am I gonna do? What am I gonna do?" I was speechless. I said, "Do… you need something…? What are you doing here?" There were so many things that I had never seen before. All of sudden you know. One day in a very short time.

2) Learning by Sharing

Storytelling is a big part of MCT staff's organizational life and is a source of learning. The main reason for sharing stories is the MCT's physical work setting. The MCT's workspace is very confined, and staff members do not have their own offices. Only the coordinator has a very small office in the MCT but shares the fax and printer with all other staff. They do not have individual desks or workstations. All staff except the coordinator share computers and one large table. "We eat at that table, and take calls at the table. Everything happens at this large table,"

said one informant. When they come back from a scene, they always talk about their experience and explain what they did to solve problems. In the small room, they work together 24 hours a day. Some of them consider their team members family members. They naturally talk about their experiences and the patients whenever they have a chance.

As a result of active sharing of both successful heroic and unexpected failure stories, informants remember others' experiences vividly as if they were their own. For example, most of them vividly explained the incident that triggered the foundation of the organization, even though they had not been in the organization at the time. Several informants also gave examples of cases that they did not participate in personally. For example, the following case was described by an informant who did not actually participate in the case personally. The story was viewed as more real by this informant than by the person who actually was there:

> We got a call from Thatcher Park, about a 20- to 22-year-old young man. He stole a child's bike, with two wheels, and he had a bunch of allergy medicine. People get high…Somebody spotted him acting suicidal…so we talked to him for about four hours, and generally, the longer you talk in a hostage type of situation, or…if you can establish communication, things will be OK. It is a big hurdle…So we thought, oh, yeah, we are going to be ok. This is gonna happen. He is gonna turned around, and we are making some progress…. As soon as it turned dark out, he was talking with them, and turned around, and jumped. And he died. That was the only one person we actually had direct communication with who killed himself in front of us.

Storytelling in this organization is an important method for knowledge transfer and helps in dealing with the cases of recidivist patients, or so called "revolving door patients" in the community, who are also often unable to explain their symptoms very well. Communication issues with such patients make these cases difficult for the police or other agencies to handle. The MCT members' knowledge about the patients expedites the process of assessment in the field:

> What people need to have is experience...Somebody would say, "It is John Smith," "Oh, John Smith!" We know exactly who John Smith is, but they don't know. So, it is very hard for them because they don't know, while we know exactly know who they are. We can recall their history, suicidal behaviors, medication, treatment, aggressiveness, assaultiveness… all of which they won't know. I think that is a disadvantage for those who have been here only for two years. The learning curve takes a year or a year and half at minimum. I came from another program in the

> county that deals with crises…but I would still say that it took me about a year to know everything.

Storytelling is also encouraged by the MCT's organizational policy, with respect to sharing case-relevant information across shifts. The MCT operates the day shift from 7:45 am to 4:15 pm, the evening shift from 3:45 pm to 12:15 am, and the night shift from 11:45 am to 7:15 am. During these overlapping times, teams hand over important information about what happened during their shifts. This overlap of work hours makes documentation and follow-up easier and systematic.

3) Learning by Collaboration

Organizational learning does not occur only within the MCT; its staff members also learn through collaboration with other participants such as police, EMS, and firefighters at a crisis scene. Although the MCT is designed for mentally ill people in crisis situations, MCTs are also required to come to other crisis situations, since community members might call MCTs for various crises, or police or other organizations might ask MCTs to participate in crisis situations that are not exactly in their area. "Because there is no sartorial patient… It can be a rape victim, it can be family members who walked in, or he or she has family members who are completely suicidal. There could be child abuse. We are called into all different sorts of situations. So you really have to know the supports around those specific issues," said one informant.

An example case presented in <Table 3> shows how different actors collaborate in a high profile case. When they go out for a call, they have to decide whether to turn up with other actors such as police or emergency medical services (EMS) or go alone. In a crisis situation, different actors such as police, EMS, family members, friends, psychiatrists, and different involved agencies, and collaborations are required to secure patients' safety. When they go out with other actors, particularly in high profile cases, the roles of each actor should be improvised first. Although the basic role of each actor is delineated in their field manuals, crisis situations might require different work processes and behavioral patterns. As they work together, collaborators understand that they are pursuing the same purpose, and they try to develop effective communication systems to support patients in more effective ways.

> It is very collaborative. And you have to have knowledge of…the idea of…that we are there to help and to guide and to offer assistance. … So the point is that we need a system that gets to them most expediently and efficiently, and that is how it

> works. And always the best idea is that we put the patient first and deal with administrative and certain systemic issues later.

Thus, learning how to collaborate with other agencies could be one core capacity of MCTs to deal with patients effectively. This should be learned through a series of interactions with other actors. For example, MCTs have developed good relationships with police officers in certain areas of their county. In that area, participants know exactly what to do at a scene, since they have had the experience of working together before in crisis situations. However, informants also explained to us that it would be more difficult if participants in a scene have not worked before, since they do not have a clear idea of what the role of the MCT is at the scene. Thus, MCT members understand that the situation will be more complex and dynamic in a crisis scene due to challenges in collaboration, and they try to develop some tactics to deal with this. Tactics such as wearing uniforms and hanging IDs, and recognizing command lines at the scene are mentioned to make collaboration effective.

> The thing that we learned from high profile calls is that communication amongst people(from other organizations) is very important…Everybody gets called for high profile calls…That is very confusing. So we really try to make ourselves more visible to people when we are coming to the scene. When we walk into the scene, police will automatically know who we are…We have this I.D., or we have jackets that we wear, so we try to find the easy way to make ourselves recognizable, and get peoples' attention. Depending on the type of scene, and who got there first, sometimes you will find the fire department, the chief, and the person who is in charge of the team. At another scene, you will find that the police will be in control and in charge of the scene. Depending on whether it is local law enforcement or federal law enforcement, it will differ.

Different actors also learn others' skills by participating in scenes together. In a crisis scene, tacit knowledge of one actor is transferred to other actors, and they learn each other's perspectives, which enhances the possibility of successful case management. For example, collaboration with police is essential in MCT work. First, the MCT provides psychiatric knowledge and negotiation skills to police officers to deal with clients. Although police officers receive eight hours of training on mental health cases, they are not trained to be professionals with a high level of mental health training. Thus, police officers call MCTs for their expertise,

and to get assistance for patients. As some police officers in certain areas have more chances to participate in mental health crisis scenes, they learn from MCTs about tactics, and deal with patients more effectively.

> …and in this county, they(police officers) have learned a certain amount of skills from us about how to approach someone before entering if we(MCT) are not there. So, they have gained a certain amount of comfort by having watched us, and they can even start to talk to patients if we are not immediately there. And they won't wait. And actually, we will let them know on the phone. Sometimes I have told them, "Don't wait for us, go in, and do it." And they take the direction from us.

At the same time, the MCT also absorbs safety tactics from the police. MCT staff members clearly understand that they do not have legal authority except for their coordinator, and police could provide legitimacy and safety to the MCT in a crisis situation. In collaborating with police officers, MCT staff members obtain tacit knowledge particularly about how to protect themselves in a crisis scene. For example, MCT staff learn how to "hide and make themselves small in hostage situations," how to stand in front of patients so that they can return in other directions or turn away from the scene. One informant says,

> … you get some training in class, but… I learned more things on the job. And just through experience. For example, police would tell you, "It is not a good place to stand because…" and then they will show you where the safe place is. For example, I should be behind a tree to be covered. That is something that I did not know. No one taught me during training, but during overtime, working with police and other agencies, I realized, "Oh… I should be doing this."

MCTs and other collaborators also share information about patients and cases to prevent mental health crises. With the cooperation of other agencies, hospitals, and service providers, MCTs receive and send detailed and updated information on patients. For example, if MCTs get a phone call that someone is seeing a client who is not doing very well, they could call other agencies to make an appointment, and give patients a "flag" so that agencies could collaboratively watch the patient. When clients walk into crisis units frequently, staff members tend to remember and call them "revolving door patients." By collaborating with other agencies, the MCT also tries to "hone down" their revolving door patients, and focus their efforts more on new patients in crisis by connecting other non-emergent patients to regular service providers.

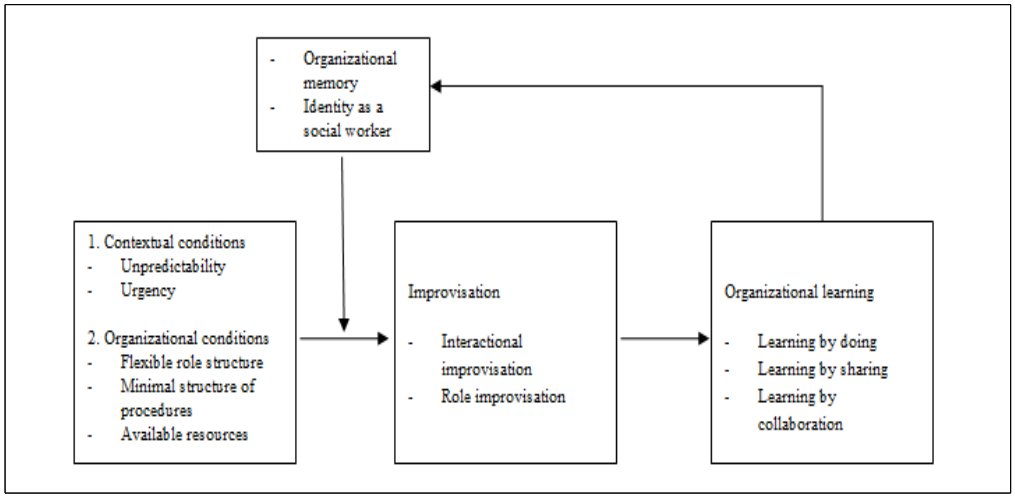
Those tactics become more effective as participating actors across agencies build a sense of a common working group. As actors interact more and more, actors find a gap in crisis management systems, and try to “fill the gap” as actors of community crisis intervention units. For example, police officers could act as the MCT using the limited knowledge that they have learned from MCTs when MCTs are not available at the scene. MCTs could be also act as family crisis counselors when phone calls come through to the MCT, and original actors are not available. Thus, with the improvisation of participants, the whole crisis system becomes more effective with better flexibility.

V. Discussion and conclusion

This study examines the dynamics of improvisation in an MCT in a Northeastern state. Based on the data analyses, we developed the model shown in <Figure 2>. First, we found that organizational improvisation is more likely to happen under certain organizational and contextual conditions. In the MCT, the nature of work is unpredictable, and MCT staff must participate in a scene with great urgency, as MCTs deal with mentally disturbed persons in crisis situations. In addition, MCT’s organizational context also contributes to engendering improvisation. MCT staff roles are defined with flexibility, and the service delivery process is simplified for effective response at crisis scenes. In this situation, improvisation is a core part of the work process to fill gaps that are not defined clearly in formal work procedures.

We found two different types of improvisation in the MCT: interactional improvisation and role improvisation. Interactional improvisation is found mostly when MCTs interact with patients, while role improvisation is found when MCTs collaborate with other participants in a crisis scene.

We also found that MCTs’ improvisation is systematically developed into organizational learning. While MCT members build their individual skills through various experiences of improvisation at crisis scenes, they also develop organizational-level learning by sharing their stories with other team members. MCTs also learn from other participants such as police officers and firefighters, and teach their tactics to other participants at the scene. Successful improvisation is recognized as a core capacity since well-developed collaboration processes may contribute to effective crisis management. In this perspective, improvisational learning is not just limited within the organization, but expanded into inter-organizational level learning.



<Figure 2> Improvisation and Organizational Learning in the MCT

Once organizational members learn how to improvise at the scene, the learned improvisation process enhances the possibility of effective future improvisations. Learned improvisation is stored in the MCT's organizational memory both in the form of documents, individual experiences, and tacit knowledge. The more organizational memory is stored from learning, the more ample repertoires MCT staff will have, which expedites effective improvisation at crisis scenes. We also found that MCT's identity as social workers also provides a basic "chord" of improvisation (Weick, 1998). Interacting with patients and other actors in crisis scenes, MCT members share their "identity as social workers" and understand the value of "helping other people." This value is used as a basic guideline for MCT staff to conduct improvisations at the scene. Accordingly, we suggest organizational memory and MCTs' identity as moderating variables that are also influenced by organizational learning.

Our suggested model in <Figure 2> is in line with Miner, *et. al.*(2001), Moorman & Miner (1998), and Weick(1998)'s model in that the model demonstrates the dynamics of improvisation and their relationship to organizational learning. In particular, our study has the following contributions. First, we found different types of improvisation among frontline workers of public organizations(interactional improvisation and role improvisation) that have not been suggested in previous studies. We focused on how social workers in the MCT respond to emergency situations, and how improvisations contribute to solving these situations. Through our data analysis, we also confirmed Weick(1998)'s argument that planning and implementation would be ambiguous in the organizational improvisational process. MCT staff members make sense of situations through their

improvisations, and learned improvisations become a source of learning as new successful stories are shared among MCT staff.

We also can understand how acts of improvisation are integrated into organizational learning. Although Miner, *et. al.*(2001) showed the basic process of improvisational learning, their finding was based on complex production lines. The advantage of our study setting was that we had a chance to review the process of learning more closely in a relatively simple public service provision process. In this research context, we found three organizational learning processes: learning by doing, learning by sharing, and learning by collaboration, and showed how those learning practices integrate improvisations.

In conclusion, this study has implications about how frontline government workers overcome "learned helplessness" as suggested by Merton(2004). While basic organizational routines are formed from a top level, participants in a crisis scene develop their roles based on their identity as social workers and develop their meaning of work through the experience of improvisation in mental health crisis situations. In this regard, role and organizational routines are actually structured from the bottom, and identity plays an important role in improvisation in the MCT.

That is, improvisation in emergency response where the nature of work inherently involves high risk and unpredictability is inseparable from organizational practice. Improvisational action in this organization should be understood as an active sensemaking and role-making process by organizational members in the moment. This active engagement of participants postulates that there is shared understanding of role structures within the community of practice.

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박현희: University at Albany에서 박사학위를 받고(논문: Becoming a Manager: Co-evolution of Managerial Knowledge, Identity, and Networks), 현재 국민대학교 행정정책학부 조교수로 재직 중이다. 정책네트워크, 위기관리, 사회연결망 분석 등이 주요 관심분야이며, 주요 논문으로는 "The Politics of Connections: Assessing the Determinants of Social Structure in Policy Networks (2014)", "With Friends Like These: Why Terrorist Organizations Ally (forthcoming)," "Who Are All These People? Longitudinal Changes in New Employee Social Networks within a State Agency (2014)" 등이 있다(hhpark@kookmin.ac.kr).

심동철: University at Albany에서 박사학위를 받고(논문: Antecedents of Government Employees' Organizational Citizenship Behavior: The Impacts of Prosocial Orientation, Organizational Identification, and Subjective OCB Norm), 현재 고려대학교 행정학과 조교수로 재직 중이다. 조직행동론, 공공동기이론, 조직시민행동 등이 주요 관심분야이며, 주요 논문으로는 "The Effects of Public Service Motivation, Job Demands and Work Exhaustion on Street-level Bureaucrats' Turnover Intention (forthcoming)", "Government Employees' Organizational Citizenship Behaviors: The Impacts of Public Service Motivation, Organizational Identification

and Subjective OCB Norms(forthcoming),” “An Explanation of Difference between Government Offices in Employees’ Organizational Citizenship Behavior (2014)” 등이 있다(dcshim@gmail.com).