

COMMUNICATION SUPPORT BETWEEN PATIENTS DURING TREATMENT VIA USE OF MEMORIES

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ABSTRACT

Patients in long-term treatment due to accidents, disasters, or disease often feel lonely and have more of a sense of loss in inorganic spaces such as sickrooms than people being currently treated. This study therefore involves a proposition of a framework that supports the chance for those long-term patients to talk about each other's fond memories when they meet during their treatment. To invoke communication with others recuperating by passing on information to each other via the nurses in charge, the system offers fond memories of a common topic and thus offers information that enables the chance of making a self-introduction for the user. The expectation is that mutual understanding can be deepened via that support between patients, patients and nurses, patients and other patients, and patients and doctors. Moreover, it could support the creation of better interpersonal relationships within hospitals.

KEYWORDS

Fond Memory Communication, Patient's chats, Private self, Public self

1. INTRODUCTION

People have various worries in their life. They often suffer from loneliness and a sense of loss. Moreover, their hopes in life can be lost when placed in a situation in which their living conditions have drastically changed, with some people even feeling, "They wish to die" or "They were deserted by their families". Communication can provide relief from such negative feelings. Several studies in this field have focused on communication between doctors and patients to date. However, very few attempts have been made to study communications between patients and between nurses and patients.

A framework that enables communication to take place between patients is an indispensable element during long periods of recuperation. Patients have to spend a lot of time in the sickrooms made up of inorganic, unknown spaces when they are hospitalized. It is thought that the patients conversing would be effective in relieving their loneliness.

Patients often express dissatisfaction that their stories cannot be easily heard because the doctors and nurses are very busy. Conversely however, doctors and nurses often wish they could listen to as many patients' stories as possible, and hence actually wants to hear them. As proposed in this study it is thought that inducing conversation between patients would have the advantage of enabling doctors and nurses to easily participate in the conversation, too.

1.1 About the "Narrative" Approach

There is a concept in medicine that is based on conversations taking place between doctors and patients as an approach at medical treatment sites. The phrase "the patient's story", as used here, chiefly indicates "the patient's experience with struggling with a disease." "DIPEX Japan" and "Life Palette" include "experiences with health and sickness" in a data base as part of a relational approach. They are expected to be of use in social support anyone distressed with the same sickness because a variety of experience from struggling with

a disease can be "set wisdom." Moreover, the effect of the catharsis as depuration of the mind can be expected from talking to other people [1].

1.2 Communication via Personal Memories

"Personal memories" can be used to not only recall things yourself but also to communicate with others. Yamashita and Nojima named the communication function of personal memories "Memories communication [2]." Approaches exist that use photographs to trigger recollection of personal memories, for example via "Photologue Viewer" and "Electronic mini album [3]."

2. METHOD

Patient's talking to each other in this study doesn't mean the narrow sense of about "the recorded experience of struggling with a disease" and instead also past "personal memories."

There has been no attempt to date to directly connect patients, although there are a lot of approaches that center on a patient.

In local spaces such as hospitals and facilities there are typically a number of people suffering from the same sickness, facing the same problems, and basically in the same situation. In this study a system is proposed to enable those people when they meet in hallways or sickrooms to present some common personal memories in thus inducing the opportunity to converse with each other (Figure 1).

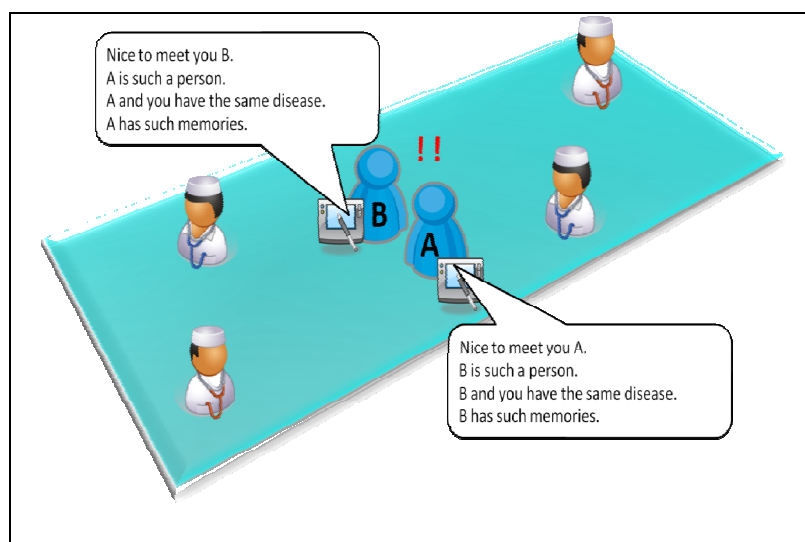


Figure 1. Imagined system utilization scenario

2.1 Analysis of First Conversation

This system presents individual information as a self-introduction and at the same time a personal memory. Japanese typically initiate first meetings with a formal exchange of a formulaic greeting. Especially when they first meet someone publically they only talk about their work, hobbies, and home life. Their private lives, which include past experiences and feelings, are not talked about with others until they trust the other party [4]. Because of this the system casually presents the following four points when they introduce themselves.

1. Greeting of "Nice to meet you".
2. How many times have you met the other party?
3. When did you meet?
4. What do you have in common with the other party?

The expectation is that this will then result in users gradually acquiring the chance to converse in a trustworthy manner with the other person.

2.2 Mode of Expression via Accompanying Metadata

It is said that humans acquire 80% to 90% of information via the sense of sight, thus leading to the consideration that looking back on personal memories via viewing photographs and mementos is an effective approach to take [5]. In this study personal memories are invoked by focusing on “date and time the picture was taken”, “place the picture was taken” and “content of events” three minimal pieces of information using a variety of metadata associated with a picture.

3. PROTOTYPE SYSTEM

A system called a "Memory exchange system" that was proposed in Chapter 2 was constructed using a Windows PC, and the prototype system explained in this chapter.

For example conversations between patients passing each other are invoked in the following processes.

1. "Memory exchange system" in which wireless applications are distributed and attached to patients in hospitals beforehand. All the addresses of each wireless application are recorded on the equipment.
2. Patients equipped with wireless applications recognize each other via wireless telecommunication.
3. If the detected wireless address has been registered in the database process 4 is executed. It returns to 2 if not registered.
4. Metadata on your own fond memories and the other party's are compared, and commonality then set according to the linked tags. Common memories of the highest level are then prioritized.

3.1 Content of System

The Bluetooth equipment has individual addresses. The system enables information on other parties to be acquired. The Bluetooth address of an individual device is automatically detected if registered in the database as an ID. The name of the disease from which the user suffers is also registered. Moreover, some people do not want others to know the disease they have. Figure 2 shows the configuration of the system.

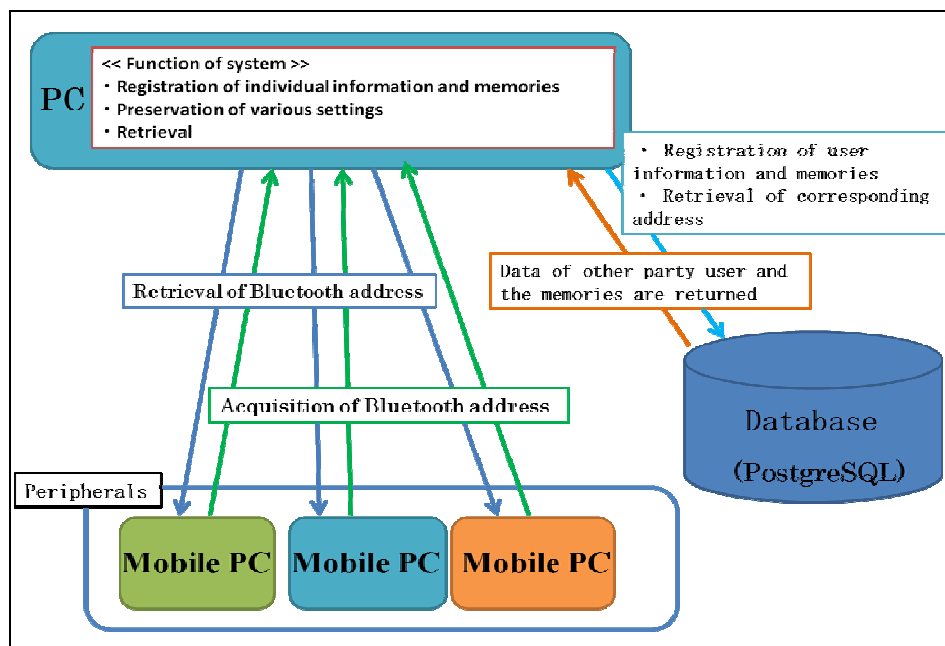


Figure 2. Figure of system configuration

Moreover, the results of execution are shown in Figure 3 when the corresponding address is in the database.

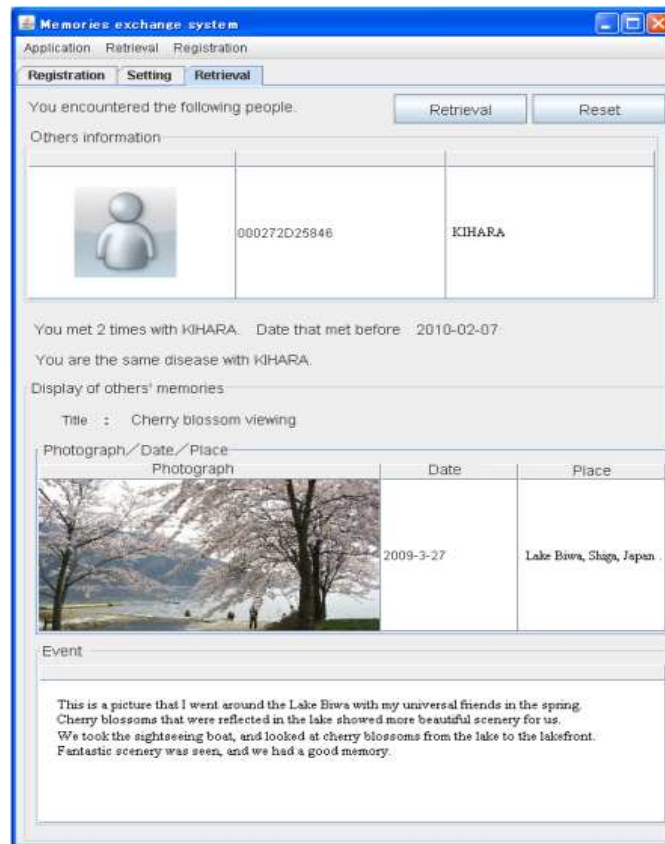


Figure 3. Example of system screen

4. EVALUATION

Once the prototype system was complete the opinions of five Japanese occupational therapists at the "Medical corporation Kofu association of the Munakata hospital rehabilitation department in Fukuoka Prefecture Munakata City" were requested. The special aspects of "Utility of the system on-site" and "Problems when the system was actually used on-site" were then evaluated.

4.1 Evaluation by Specialist

The background of the research, purpose of the system utilization, and operating method were explained in a demonstration of the system before the evaluation. Opinions, needed improvements, and future work concerning this system were then requested.

The session took place at Munakata City, Fukuoka, Munakata hospital, JAPAN on January 28, 2010.

4.1.1 About Activation of a Medical Treatment Site

If an environment in which the system is available activation of a medical treatment site can be expected to result from the system. Patients can often be uneasy, timid, and have to depend on others when they are sick. If they can find something in common with someone else it can be very reassuring to them. Moreover, because knowing another party's fond memories can be a chance to get to know the other party better a good relationship can be built.

4.1.2 About Patient's Communications

The system could be very useful to young people accustomed to using personal computers. However, it could prove difficult for anyone not at all accustomed to them before using the system, and therefore cannot be said to be useful for all patients being treated. However, it can be expected the very useful as a communication tool for doctors, nurses, and patients during treatment if made available for use in hospitals.

4.1.3 Improvement of System

Introducing the system at the start of hospitalization can be assumed to be a heavy burden on users and therefore it was pointed out that it should not be introduced when patients are first hospitalized and instead after they have become accustomed to hospitalization and making acquaintances. Moreover, there is a possibility that it would originate in further recovery if introduced when during convalescence.

5. CONCLUSION

Users may strongly resist using such a system within medical treatment sites where personal computers are not very frequently used. The convenience of the system therefore needs to be re-examined.

The effectiveness of the system could be confirmed in that one's own memories could be arranged and the chance to converse enhanced through use of it. However, the effectiveness of introducing the system when first hospitalized needs to be re-examined, as indicated in the comment made by the specialist.

Based on above future work will include the following. The opinion was aired that "It would be convenient if a function where only health care professionals were able to display part of the clinical records if they also had this system were provided" by an occupational therapist. The clinical history of a patient during treatment and their physical condition are examples. This could also include past treatment and today's schedule in the case of rehabilitation. It can also be expected that the system would lead to reduced incidents if it was capable of displaying information on the diseases of patients during treatment.

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