Missing person identification and positioning system

*W-M. CHI, Y-C. LIN, C-H. CHEN. **Missing person identification and positioning system by means of wireless communication network.** Gerontechnology 2014;13(2):191;* doi:10.4017/gt.2014.13.02.052.00 **Purpose** This study utilized quick response code (QR code) to reveal the identity of the dementia patient and applied smart phone with wireless communication networks to approximate the location of the patient (*Figure 1*)[1]. **Method** When QR code on the dementia patient was read by the smart phone, the person would be located by one of three systems (GPS, 3G, or Wi-Fi) and identified by the backend service manager via the ID number of QR code. Google Android system was applied to develop QR code identification system and location system[2]. The backend database was developed by MySQL system to store the descriptions of the patients, such as time, ID number, coordinates, address, and status. The backend service manager employed the communication systems (e.g. telephone or email) to transmit the messages of the patient to their family or care center (*Figure 2*). QR code also could be modified as creative clothing items, such as wrist bands, necklaces, key rings, armbands, etc., which could reduce the embarrassment of patients. **Results & Discussion** This study developed a helpful application software which can cooperate with QR code read the app on smart phones to identify and locate the missing dementia patient. But this technique needs the user actively to take at QR code attached on the patient. In addition, the ID number on the QR code can be edited by backend service manager (e.g. care center or police) to protect the patients' privacy. The technique proposed by this study can prevent dementia patients from getting lost and reduce the burden of both people with dementia and their caregivers.

References

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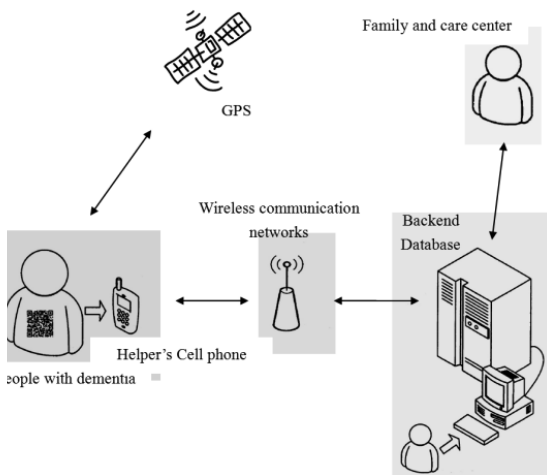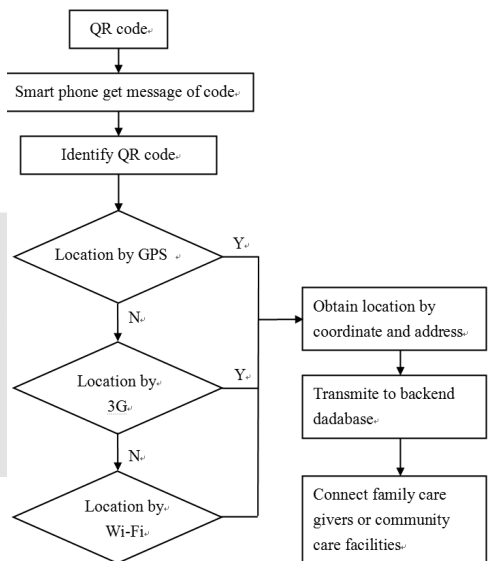3. Anantharam V, Honig ML, Madhow U, Wei VK.. Performance Evaluation 1994;20(1):287–300; doi:10.1016/0166-5316(94)90018-3

Figure 1. System structure

Figure 2. Information flow