

## INTRODUCTION

In occupational therapy, music has sometimes played an important role, especially in psychological occupational therapy. Psychological occupational therapy involves using arts, music, sports, etc. to improve a patient's endurance, tolerance of frustration, as well as fine motor, gross motor, cognitive, and sensory motor functions, etc. While participating in therapeutic activities of psychological occupational therapy, patients frequently exhibit inappropriate behavior, such as violence, brawls, desertion, dullness of mind, simpering, etc., hindering the activities and reduce the therapeutic effect. Hence, occupational therapists are most concerned with eliminating patients' inappropriate behavior.

Therapeutic theories like conditioned learning and group dynamics are often employed to control patients' inappropriate behavior. In this regard, psychiatric research<sup>1-7</sup> has repeatedly indicated that music helps diminish unfavorable mental and behavioral symptoms, and that music enables people to become absorbed in their work and learning, rather than be engaged in idle fancy which decreases their working efficiency.<sup>2</sup> In a report on research of dementia patients, the author stated that background music not only decreased the frequency of patients' inappropriate behavior, such as violence and hyperactivity, but also diminished the degree of the lingering inappropriate behavior.<sup>8</sup> It was our original thought that background music might effectively reduce inappropriate behavior among psychiatric patients as it diminishes inappropriate behavior among dementia patients, since they may have similar brain disorders.

The goal of this research was to study how different types of background music affected the inappropriate behavior among patients during static therapeutic activities organized by the Psychological Occupational Therapy Department. The possibility that background music can reduce inappropriate behavior among patients may allow rehabilitation activities to proceed more smoothly and also greatly enhance the therapeutic effect of rehabilitation in further applications. This is the first appearance in the literature of using musical therapy for psychiatric patients during oc-

cupational therapy in an ethnic Chinese population. We also would like to determine whether music therapy can be accepted in our society and by medical fields based on our preliminary results.

## PATIENTS AND METHODS

### Patients

In total, 15 schizophrenic patients (9 men, 6 women), aged from 23 to 62 years, were selected from 73 patients hospitalized in the psychological occupational therapy department of National Taiwan University Hospital to join this study. The inclusion criteria included the following.

1. Patients had to be hospitalized in a ward of the psychiatric department for more than 3 years.
2. Patients had to take the same medication throughout the entire course of the study.
3. Patients had to be aware of the whole entire of the study and be willing to join all of the trial sessions. They had to sign informed consent in advance.

## METHODS

### Background music selection

We selected different types of music for use as background music for occupational therapy processing by MAIT (Music Assessment and Implementation Tool<sup>1</sup>), a questionnaire about patients' tastes in music. Classical music, Mandarin pop music, Chinese classical music, and jazz were the final selections. As for classical music, we used Mozart's K448 piano sonata (the 1<sup>st</sup> movement), which was proven to be useful for improving spatial test performance<sup>9</sup>, as the positive control. As for Mandarin pop music, we used a CD, containing the 10 most popular songs in 2001 (published by Gogorock). As for Chinese classical music, we used the "Associated Songs of the Great Wall", some of the most famous songs of Chinese classical music. As for jazz music, we used 5 songs ("Israel", "ELSA", "Round Midnight", "Love in Here to Stay", "How my Heart Sings"), in order to cover different