

fear of negative evaluations and anxiety, while females recognized the path to be direct and to be associated with a reduced sense of self-efficacy.

Furthermore, in studies reporting on the personality of medical students, samples came from a variety of sources, including medical school applicants as well as preclinical or clinical students. Huxham<sup>12</sup> reported that while personality contributed more to early-stage performance of medical training, academic achievement during medical school education, especially the final year, was a significant predictor of postgraduate performance. Hoschl<sup>13</sup> reported that personality traits slightly decreased the capacity of explaining and predicting academic success during the first 3 years of medical study. As these findings were observed to be distinct, the effects of years exposed to a medical education or environment seemed worth further consideration in studies on medical students.

Moreover, personality inventories were considered to be one of the categories employed in the selection of medical students in predicting their future performance in medicine.<sup>14</sup> In a study by Chan-Ob and Boonyanaruthee,<sup>15</sup> 65 medical students were administered the California Psychological Inventory (CPI) to identify factors that might predict their performance. It was exhibited that scales of "dominance", "flexibility", and "socialization" were positively correlated to academic performance as determined by their grade point average (GPA), while "sociability" and "sense of well-being" were negatively correlated. Finally, personality profiles have frequently been employed to explore various aspects and issues of the medical community. For example, as certain patterns of personality were shown to be related to medical specialty choices,<sup>16</sup> medical students possessing the personality traits of extraversion and wishful thinking predicted postgraduate mental health problems which would require treatment.<sup>17</sup>

Few studies have been conducted in Taiwan which have intensely investigated whether the personality profile of medical students differ from that of the general population. Nevertheless, being able to identify a cluster of personality traits is significant not only in presenting a personality profile of students in medical schools but also in portraying characteristics that

might help medical students with their medical education and training and predict their future success in the medical field.

Thus, the Lai Personality Instrument was administered to all medical students in years 1 to 6 at Taipei Medical University from October 23 to November 9, 2001. The purpose of this study was to (1) identify personality characteristics and trait patterns of medical students at Taipei Medical University; (2) investigate whether the personality characteristics differed between male and female medical students; (3) explore if the personality profile was persistent from the 1<sup>st</sup> to the 6<sup>th</sup> years of medical education; and (4) examine the factorial validity of assessing the personality structure of medical students of our sample by the Lai Personality Instrument. The individual effects of gender and year on the personality profile of medical students were explored in depth.

## MATERIALS AND METHODS

### Study Sample

A cross-sectional design was utilized to assess the personality profiles of medical students at Taipei Medical University. The Lai Personality Instrument was scheduled to be administered from October 23 to November 9, 2001 to measure students' general personality traits. All of those who were studying in years 1 to 6 in the Department of Medicine were invited to participate in this study. Of the 909 eligible students, 759 completed the questionnaires, including 566 males and 193 females, for an overall response rate of 83.5%.

### Data Collection

The Lai Personality Instrument was provided to all volunteering students who studied in years 1 to 6 in the Department of Medicine, Taipei Medical University. During October 23 to November 9, 2001, each class representative set up a time for group administration. However, those who were unavailable at the class administration time were scheduled to fill out the questionnaires individually in the Student Counseling Center afterwards.