

Investigating the reliability of Contemporary Chinese Pulse Diagnosis as a diagnostic tool in Oriental medicine.

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Certificate of Authorship/Originality

I certify that this thesis has not previously been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Abstract

Introduction

Few studies have evaluated the reliability of pulse diagnosis clinically despite it being a fundamental part of Oriental medicine diagnostics. The objective of this study was to determine the levels of intra-rater and inter-rater reliability of practitioners using an operationally defined method, Contemporary Chinese Pulse Diagnosis™ (CCPD), to evaluate the radial pulse of volunteer subjects.

Methods

The study utilised a real-life design to investigate CCPD in a clinical setting. Fifteen volunteer subjects and six testers skilled in the CCPD method were recruited. Two episodes of data collection were conducted 28 days apart as a practical test and retest. For each subject, four pulse rates and 30 pulse categories defined by the CCPD system were assessed and reassessed by the same four testers during both phases of testing. All assessments were conducted according to the CCPD method.

Intra rater reliability was measured by comparing individual tester results on day one with day two, while inter rater agreement and reliability were determined by comparing all testers across both days. Rates were analysed using ANOVA, while the remaining data employed Cohen's kappa coefficient. Kappa values were interpreted according to previous clinical studies and parameters considered acceptable when using a tool such as CCPD to assist in clinical diagnosis. Cross-referencing percentage agreement with the appropriate kappa results rated individual pulse quality dependability.

Results

Of the 11760 kappa calculations excellent to good agreement ($\kappa \geq 0.60$) in 67% of intra rater and 44.1% of inter rater calculations indicated CCPD to be a reliable method of pulse diagnosis. Unacceptable agreement ($\kappa \leq 0.40$) in 14.3% of intra rater and 30.5% of inter rater calculations correlated most profoundly to CCPD pulse category/position and to several subjects. Reliability of individual pulse qualities depended on the location of the quality, the complexity of the sensation description and the classification or grouping to which the quality belonged.

Conclusions

The results confirmed the findings of earlier studies that when the system of pulse diagnosis is operationally defined, acceptable levels of reliability can be achieved. Additionally bilateral methods of palpation were identified as more reliable than those that assessed pulse positions using a single finger.

Unacceptable reliability for the *Combined Complementary Positions* suggested imprecise descriptions, wording or language for accessing the *Pleura*, *Esophagus* and *Diaphragm Positions* may exist within the CCPD operational definitions. Further any uncertain terminology needs revision as the data indicated this might have contributed to variance within the testers' techniques. Also the pulse qualities Muffled, Change of Amplitude, Blood Heat, Blood Thick, and Flooding Deficient, while not shown to be unreliable, had comparatively lower reliability suggesting the definitions for these qualities may also need modification. If variance continues following review, then the reliability within a clinical context of these positions and qualities needs to be re-evaluated entirely.