Validating a Running Motivation Scale in a Chinese Culture: The Reliability and Validity Test of the Simplified Chinese Motivations of Marathoners Scales (SCMOMS)

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The number of marathon runners soared in the past three years in China along with the number of running events. With the increasing popularity of running in the Chinese culture, it is pivotal to understand why one runs. A properly developed motivation scale tailored to marathon running in general and to the Chinese cultural context in particular, is needed. Masters, Ogles and Jolton (1993) developed the Motivation of Marathoners Scales (MOMS) for the American runners. As a scale tailored to marathoners, it has been extensively used in studies examining psychobehavioral relations of sport participants (e.g., Bell, 2014; Krohn & Gladden, 2014; Rundio, Heere & Newland, 2014). On the other hand, measurement equivalence is the prerequisite for any meaningful cross-cultural comparison of models in consumer behavior (Steenkamp & Baumgartner, 1998). Though the invariance of MOMS were not tested, the study reported made an initial attempt to examine the reliability and validity of a scale developed in the West in an Asian culture.

Four thousand participants of a major marathon event in China completed the survey. The participants ranged from 18 to 60 years old; 83% of them were male and 17% were female; 61% were locals and 39% were visitors. Demographics of the participants were comparable to the event attendee profile. Hence, data obtained were representative of typical Chinese marathoners. The MOMS developed by Masters, Ogles and Jolton in 1993 is consisted of 56 items in four conceptual categories of nine motives. Physical health motives include general health orientation and weight concern; social motives include affiliation and recognition; achievement motives include competition and personal goal achievement; psychological motives include psychological coping, self-esteem, and life meaning. Back-translation was adopted to ensure the meanings remain intact. After the items were translated to Chinese, they were evaluated to be suitable for the Chinese culture, to reflect the psychobehavioral habits of Chinese marathoners, and to avoid repetition. This resulted in 24 items while the structure of the scale remained the same.

Confirmatory factory analysis using the original MOMS model did not fit, suggesting motivation of Chinese runners may structurally differ from those in the West. Five dimensions with eigenvalue from 8.83 to 1.15 were obtained via exploratory factor analysis with varimax rotation and principal component extraction. It was noted that items of the same motives set in the original MOMS were loaded together, suggesting there was a certain degree of structural similarities across the two cultures. The first dimension includes three original MOMS motives, i.e., personal goal achievement, life meaning, and self-esteem. The second dimension includes two original MOMS motives, i.e., competition and recognition. Third dimension mirrors the original MOMS’s physical health motives, including general health orientation and weight concern. The fourth and fifth dimensions were respectively the original MOMS motives of psychological coping and affiliation. Thus, it can be inferred that, in the Chinese culture, five original MOMS motives were reorganized to be two new conceptual categories; two motives became single-motive categories while other two motives remained together in the original MOMS category.

In other words, while similar to the original MOMS nine motives, runner motives in the Chinese culture were regrouped to five conceptual categories. Different from their American counterparts, the Chinese runners associated achieving personal goals with life meaning and self-esteem which were all concerned with the fullness of the inner self. Further, the Chinese runners associated competition with recognition both of which directed to external acceptance. Runners in both cultures possessed same motives in physical health. Finally, Chinese runners considered socialization and psychological coping to be two unique dimensions explaining why they ran. Based on the above theorization, a hierarchical confirmatory factor analysis model was developed. IBM SPSS AMOS 22 was used to conduct the analysis. The model used 23 SCMOMS items as observed variables, 9 motives as the first-order latent factors, 7 of which were further grouped to three second-order latent factors. Using maximum likelihood estimation, the model was converged after 10 iterations and yielded satisfactory model fit (RMSEA=.047 ; NFI=.959 ;
TLI=.956 ; CFI=.963). Hence, the model was accepted. Further tests were conducted to examine the scale’s reliability and criterion validity. The reliability coefficients of the nine motives ranged from .70~.86. Criterion validity test revealed that, of the nine motives, except competition and recognition, the rest significantly correlated with weekly training kilometers. All nine motivations significantly correlated with runner’s leisure identity.

The findings revealed both similarities and differences in running motivations across USA and Chinese cultures. Future study shall examine measurement equivalence in running motives across cultures in order to achieve a full understanding of participatory sport consumption behavior.

References


