

THE RELATIONSHIPS AMONG PSYCHOLOGICAL WELL-BEING, RECREATIONAL SPORTS CONSTRAINTS, AND NEGOTIATION STRATEGIES FOR PATIENTS WITH TYPE II DIABETES

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According to a recent report from the World Health Organization (WHO) (2013), 347 million people worldwide have diabetes, with an estimated 3.4 million dying from consequences of high blood sugar in 2004. Type II diabetes is particularly severe, comprising 90% of people with diabetes around the world, and is largely caused by excess body weight and physical inactivity (WHO, 2013). Patients with type II diabetes—the target population of this research—face challenges in initiating and maintaining regular physical activity, which are likely to lead to deterioration of health. Previous research has supported the importance of regular physical activity for the prevention and management of type II diabetes (Tuomilehto, Lindstrom, & Eriksson et al., 2001). In this regard, a better understanding of the constraints negotiation processes of diabetes patients will assist in the development of effective interventions for constructive and healthy participation in physical activity. The purposes of this study are to (1) investigate the influence of the constructs psychological well-being (PWB) and recreational sports constraints (RSC) on recreational sports negotiation (RSN); and (2) to examine if different constraints mediate the relationship between PWB and different negotiation strategies within a sample of patients with type II diabetes in Taiwan.

Ma et al. (2008, 2012a, b) found that some dimensions of PWB could have positive or negative influences on negotiation. While some found a boosting effect of constraints on negotiation (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007), others found no significant relationship between them (Son, Mowen, & Kerstetter, 2008; Wilhelm Stanis, Schneider, & Russell, 2009). Recent findings have shown that as PWB is controlled, there is no relationship between these two constructs (Ma et al., 2013). Son et al. (2008) recommended that future research should look at the relationship between specific negotiation strategies and specific constraints to participation rather than looking at overall levels of negotiation and constraint. This testing is important: the failure of negotiation strategies to reduce the effects of constraints may result from negotiation strategies that do not match the constraints encountered.

Following approval from the National Science Council Project Review Board, Taiwan, purposive sampling was used to collect data from patients with type II diabetes at 10 hospitals in Taiwan. To ensure voluntary and anonymous participation, a passive consent letter was attached to the front of the questionnaire. Out of 310 participants, 283 valid questionnaires were collected, with 120 males (42.4%) and 163 females (57.6%). The respondents ranged in age from 21-90 years old ($M=58.34$, $SD=12.49$), and were diagnosed with type II diabetes at a mean age of 49.5 years old ($SD=10.54$). PWB was measured using Ryff's (1989) 30-item Psychological Well-Being Scale. First-order factors (autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance) were associated with a second-order construct, termed "psychological well-being" ($\chi^2=260.28$, $df=283$, $RMSEA=0.05$). RSC was assessed using Casper et al.'s (2011) 25-item seven-factor Constraints Scale. The proposed seven first-order factors (psychological, knowledge, interest, time, facilities, accessibility, and partners) associated with a second-order factor, termed "recreational sports constraints" ($\chi^2=652.879$, $df=268$, $RMSEA=0.07$). RSN was measured using Ma et al.'s (2012) 32-item Recreational Sports Negotiation Strategies Scale. Six first-order factors (time management, acquisition of skills, interpersonal coordination, improve finance, physical fitness, and changing aspirations) associated with a second-order factor, termed "recreational sports negotiation" ($\chi^2=703.81$, $df=247$, $RMSEA=0.07$). All associations were confirmed using CFA using LISREL 8.72. The four-step approach suggested by Baron and Kenny (1986) was adopted to assess the mediation effect of constraints between PWB and RSN using regression analysis.

Findings from regression analyses showed that seven dimensions of constraints partially mediated the relationship between PWB and the negotiation strategy of physical fitness (β_{PWB} fell from 0.28 to 0.14, $p<.05$). Patient PWB strength positively predicted the "physical fitness" negotiation strategy. While two constraint dimensions (facilities, accessibility) positively predicted "time management" and "skill acquisition", three constraint dimensions ("interest", "psychological", and "partner") negatively predicted "time management", "interpersonal coordination", "improve finance", "physical fitness", and "changing aspirations". Although previous research has described the interrelationships among PWB, constraints, and negotiation at a composite level (e.g., Ma et al., 2012a, b), the present results have conferred a better understanding as to what specific constraints encountered would be effectively negotiated by the patients. The mediation effect of constraints suggests that counselors can enhance successful negotiation for physical fitness improvement among patients with high PWB levels and low "interest" constraints.

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