



COMMITMENT TO TEAM GOALS IN SPORT: ADAPTATION OF GOAL COMMITMENT SCALE TO SPORT FIELD

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Abstract:

The aim of this study was to revise Goal Commitment Scale, developed by Hollenbeck, Williams and Klein (1989) with 9 items, revised by Klein, Wesson, Hollenbeck and Wright (2001) to 5 items and adapted to Turkish by Şenel and Yıldız (2016) to measure commitment to team goals and analyze validation and reliability in a sample including athletes. The Turkish version of the 5-item Goal Commitment Scale was revised by taking expert opinion to measure commitment to team goals. The Revised form was sent to at least 2-year licensed athletes on the Internet, and data was collected from 400 athletes. The data were examined and 25 improper data were excluded. Collected data were analyzed in SPSS by using Exploratory Factor Analysis and in AMOS (Analysis of Moment Structure) program by using Confirmatory Factor Analysis. Results showed that the revised commitment scale that measures commitment to team goals could be used for samples including athletes.

Keywords: goal commitment, team goals, scale development

1. Introduction

A goal is a purpose or object that an individual spends effort to reach (Locke, 1969). Commitment is defined as maintaining spending effort to reach an original goal and stresses unwillingness to give up the goal or reduce the original goal (Campion & Lord,

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1982). Goal commitment, in the definition of Locke et al. (1981), refers to determination to reach a goal.

In the goal theory, goal commitment is defined as an important condition because a goal has no effect if commitment does not exist (Latham, Erez & Locke, 1988). The goal setting theory hypothesizes that goals are instant regulators for behaviors. This theory was developed as a structure to predict, explore, and influence motivation of an individual in the work place. According to this theory, a certain high-level goal provides opportunity for higher performance when compared to circumstances in which easier and uncertain goals (i.e. do your best) or no goal exist. Moreover, this highlights determined goal commitment principle; in short, the higher the goal the higher the performance. Finally, variables such as feedback or knowledge of results, motives, participating decision making process and competition influence the worker performance to the extent that only certain higher goals are set and committed (Latham, Ganegoda & Locke, 2011).

Locke (1968), in the beginning, proposed that goal commitment had moderator role in the relationship between goal difficulty and performance. In fact, positive relationship between difficulty and performance was observed among individuals committed to a goal. Klein et al. (1999) suggested that the major result of goal commitment was that it moderated the relationship between goal difficulty and performance. Klein and Wright (1994) lay emphasis on goal commitment by stressing that committed individuals display higher performance than others when everyone has difficult goals in the same degree.

Hollenbeck and Klein (1987) examined 109 goal-setting studies and revealed that few studies measured the goal commitment. The only study to measure goal commitment is the translation of Goal Commitment Scale to Turkish by Şenel and Yıldız (2016) in Turkish literature. Limited studies based on or included goal-setting theory have been found (Arslan and Göksoy, 2017; Yılmaz and Turgut, 2016; Zeynel and Çarıkçı, 2015; Ataman, 2017; Altınışık, 2006) and only Mavisu (2010) included the goal commitment concept in goal-setting process.

Goal commitment has direct impact on performance (Sue-Chan and Ong, 2002; Klein and Mulvey, 1995; Locke et al., 1981). It is important to have a tool to assess commitment to team goals in sport, which is more likely to contribute to performance like any other psychological factors. In this regard, Goal Commitment Scale was adapted to Turkish students studying in the field of physical education and sport (Şenel and Yıldız, 2016). Goal Commitment Scale has 5 items and assesses goal commitment level of participants. The aim of this study was to revise Goal Commitment Scale in

accordance with the sport field, test the validity and reliability of the revised version of the scale, and assesses commitment of individual and team athletes to their team goals.

2. Method

2.1 Participants

The revised scale was sent to 400 athletes who accepted to participate in the study. These athletes were asked if they had been competing for more than two years. They all accepted this condition and responded the revised scale. After checking the collected data, the forms of 375 athletes were found to be suitable for further analysis because 25 of the data were excluded due to the possibility to affect analysis negatively. There were strong proofs that athletes filled these forms without reading the items. 112 females (29.9%) and 263 males (70.1%) participated in the study. All the participants were over 18 years old. 45.6% of athletes were competitors in individual sports (n=171) while 54.4% of them reported that they were team athletes (n=204). 74.1% of the athletes were amateur (n=278) and 25.9% of them were professional (n=97). 31.5% of the athletes reported that they competed for Turkish National Team in their branches. The mean sporting age of the athletes was found to be 9.25 ± 4.49 . Distribution of athletes participated in the study was displayed in table 1.

Table 1: Athletes' Demographical Information And Distribution Of Sport Branches

Demographical Information	Percent	Frequency
Gender	Female	29.9%
	Male	70.1%
Branch Type	Individual	45.6%
	Team	54.4%
Category	Amateur	74.1%
	Professional	25.9%
National Team Athlete	Yes	31.5%
	No	68.5%
Sport Branch	Football	30.9%
	Basketball	6.7%
	Volleyball	7.2%
	Handball	2.9%
	Tennis	4.5%
	Taekwondo	2.9%
	Athletics	2.4%
	Hokey	4.8%
	Wrestling	2.1%
	Wushu	1.9%

Kick Box	4.8%	18
Muay Thai	4.0%	15
Karate	3.2%	12
Turkish Folk Dances	0.8%	3
Box	17.3%	65
Flag Football	0.5%	2
Swimming	1.1%	4
Gymnastics	1.1%	4
Cycling	0.5%	2
Kano	0.3%	1
Total	100%	375

2.2 Commitment to Team Goals Scale

Hollenbeck, Williams, and Klein (1989) developed the Goal Commitment Scale with 9 items. Klein, Wesson, Hollenbeck and Wright (2001) revised the scale to 5 items. Şenel and Yıldız (2016) translated the scale in Turkish and tested the reliability and validity with the participation of students studying in physical education and sport field. Items in Turkish version were revised in line with the expert opinions to assess commitment related to team goals. For example, in Turkish version, the item “It is hard to take this goal seriously” was revised to “It is hard to take a goal of my team seriously” and the revised scale was sent to expert for evaluation of the new scale. Experts advised that the word “team” should be replaced with “club” because participants were going to be competing for both individual and team sports. The scale has 5 items and 5-point likert type (1=strongly disagree – 5=Strongly agree). The items of 1, 2, and 4 are reversed in calculating the average score. The higher score refers to the higher commitment. Internal consistency of the scale was found to be 0.70.

2.3 Data Collection

The revised scale was designed on digital context and sent to volunteer athletes. Athletes were also asked to respond the items by considering goals of their sport clubs. 400 scale forms were collected and 25 of them were excluded.

2.4 Data Analysis

Collected data was saved in SPSS program. Descriptive analysis was used for demographic information. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were used for factor structure. KMO value and Bartlett’s Test of Sphericity were used to determine if EFA could be applied.

3. Results

3.1 Content Validity

Content validity is an indicant whether the test items are quantitatively and qualitatively adequate to assess the target behavior (Büyüköztürk, 2007). Expert opinion was asked for content validity of revised scale. Academicians studying in the expertise field of organizational commitment, sport psychology, and leadership in sport evaluated the revised scale. Experts advised that the scale was suitable for assessment of commitment to team goals in sport.

3.2 Construct Validity

A. Exploratory Factor Analysis (EFA)

In EFA, it is the principle to explore basic dimensions that can lead the relationship between observed variables (Gaur and Gaur, 2009). Bryman and Cramer (2005) suggest that factor analysis is related to explain shared variation or variance with the points given by individuals for three or more variables. This analysis shows the measurability degree of abstract concept accurately in regard with target behavior. KMO value should be at least .60 and Bartlett's test of sphericity value should be statistically significant. (Büyüköztürk, 2007; Field, 2009). EFA was used to find out the dimensionality of the scale. Bartlett's test of sphericity shows whether dependent measurements are related (Bryman and Cramer, 2005). In this study, KMO value was found to be .707 and Bartlett's test of sphericity was significant (392.684, $p=.000$). Kaiser (1974) classified the KMO value as unacceptable (below .50), miserable (.50s), mediocre (.60s), middling (.70s), meritorious (.80s), and marvelous (.90s).

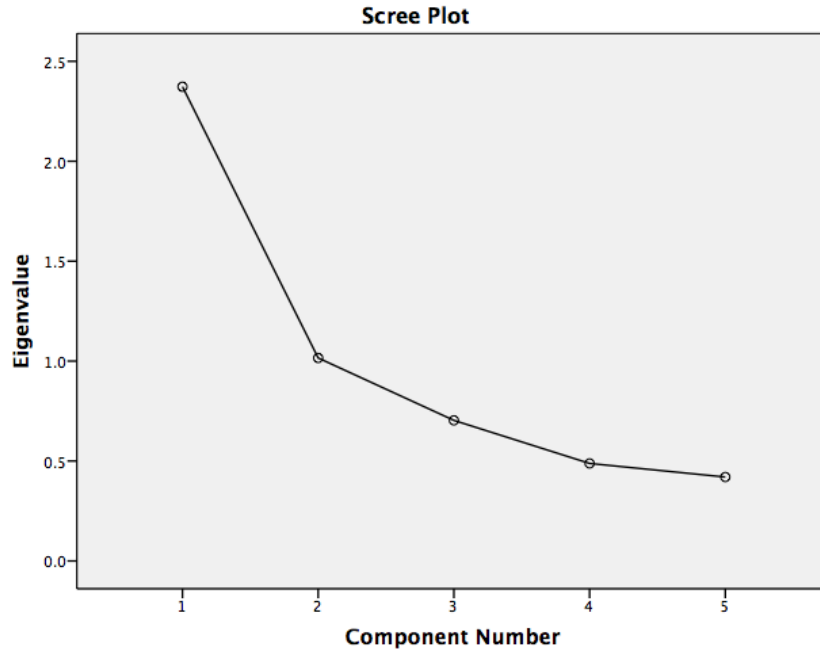
Table 2: Total Variance Explained

Factor	Eigenvalue		
	Total	% Variance	% Cumulative
1	2.373	47.456	47.456

Extraction Method: Principle Component Analysis

Collected data were analyzed by using EFA to explore distinct dimension and factor loads (Çokluk, Şekercioğlu, and Büyüköztük, 2010; Tabachnick and Fidell, 2007). Varimax of Orthogonal rotation method was used for extraction method in EFA. Varimax tries to load a smaller number of variables highly onto each factor resulting in more interpretable clusters of factors (Field, 2009). EFA analysis showed that the scale was one-dimensional.

Figure 1: Scree Plot graphic of factor construct



As it is displayed in figure 1, there is one dimension having eigenvalue higher than 1. This dimension explains 47.45% of the total variance.

Table 3: Factor loads and comparison of Turkish version and the scale for commitment to team goals in sport

Turkish Version of Goal Commitment Scale		Commitment to Team Goals in Sport	
I1	.73	I1	.48
I2	.77	I2	.79
I3	.77	I3	.71
I4	.60	I4	.69
I5	.71	I5	.71

Factor loads of Turkish version of goal commitment and commitment to team goals in sport were displayed and these loads were compared in table 3. It is stated that the values of .30 and .45 can be accepted as set intercept for extracting the factors (Büyüköztürk, 2007). The factor loads of Commitment to Team Goals in Spot Scale (CTGSS) ranged from .48 to .79. There was no significant change except the first item.

B. Confirmatory Factor Analysis

Figure 2: Confirmatory Factor Analysis of CTGSS

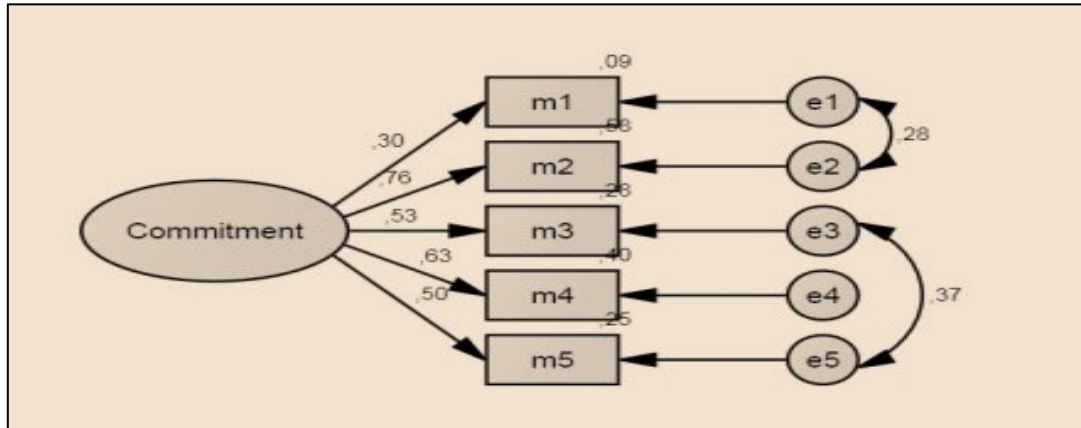


Table 4: Fit Indices of CTGSS

	χ^2	df	χ^2/df	AGFI	GFI	NFI	TLI	CFI	RMSEA
Fit indices	4.170	3	1.39	.97	.99	.98	.99	.99	.032

Regression coefficients and confirmatory factor analysis were displayed in figure 2. Fit indices of the scale were displayed in table 5. An explored theory or hypothesis related to the relationship between variables are tested in confirmatory factor analysis (Büyüköztürk, 2007; Gaur and Gaur, 2009; Field, 2009). All the indices showed that the scale had perfect fit.

Table 6: Standardized regression coefficients of CFA

			Estimate	S.E.	C.R.	p
i1	<---	CTGS	,30			
i2	<---	CTGS	,76	,41	4,68	***
i3	<---	CTGS	,53	,37	3,80	***
i4	<---	CTGS	,63	,47	4,05	***
i5	<---	CTGS	,49	,33	3,83	***

Standardized regression coefficients were displayed in table 6. As it is seen, all parameter estimations are significant.

4. Discussion and Conclusion

The aim of this study was to the revise Goal Commitment Scale, developed by Hollenbeck, Williams, and Klein (1989) with 9 items, revised by Klein, Wesson,

Hollenbeck, and Wright (2001) to 5 items and adapted to Turkish by Şenel and Yıldız (2016) to measure commitment to team goals in sport and analyze validation and reliability in a sample including athletes competing in various sport branches. While content validity was tested with the expert opinion, EFA and CFA were used for construct validity.

According to expert opinion and after implementing advised changes, scale items were accepted to assess commitment to team goals in sport. EFA showed that the CTGSS was one-dimensional like original scale and Turkish version. Scale items had proper factor loads and DFA results revealed that the scale had perfect fit indices.

Turkish form of goal commitment scale (Şenel and Yıldız, 2016) can be revised to assess commitment to group goals. Klein and Mulvey (1995) revised the scale, developed by Hollenbeck, Williams and Klein (1989), to measure commitment to group goals.

Lockes (1968) proposed that goal commitment had moderator role in the relationship between goal-difficulty-performance. This theory was tested in three studies in the beginning. Erez and Zidon (1984) found moderator role of goal commitment in goal, difficulty and performance relationship. In contrast to this, Frost and Mahoney (1976) and Yukl and Latham (1978) did not find such a role in their studies. Hollenbeck and Klein (1987) suggested that goal commitment has an important role in the goal setting process. Goal commitment positively correlated with need for achievement (Hollenbeck, Williams, and Klein, 1989). This scale can be used to predict a successful performance and examine the role of goal commitment in difficult tasks.

Athletes' commitments to team goals are important in the goal setting process of the teams and the process of trying to reach these goals. Accordingly, committed athletes to both team and individual goals will have an important role in team success; in short, team performance. In this point, measuring athletes' commitment to team goals becomes more important. Consequently, Commitment to Team Goals in Sport Scale is an applicable, valid, and reliable scale to assess individual and team athletes' commitments to their team goals. It is possible to say that scale will have an important contribution to sport sciences when the importance of goal commitment in the goal setting processes for teams and athletes are considered.

The scales used in this study were target-neutral. Future studies may include self-assigned, personal, or group goals and test the commitments of athletes to these goals.

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