THE DIRECT AND INDIRECT EFFECTS OF PERFECTIONISM AND BODY RELATED PERCEPTIONS ON DISPOSITIONAL FLOW IN EXERCISE SETTING

A THESIS SUBMITTED TO

THE GRADUATE SCHOOL OF SOCIAL SCIENCES

OF

MIDDLE EAST TECHNICAL UNIVERSITY

BY

GAYE ERKMEN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR

THE DEGREE OF DOCTOR OF PHILOSOPHY

IN

THE DEPARTMENT OF PHYSICAL EDUCATION AND SPORT

MARCH 2015

Approval of the Graduate School of Social Sciences

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ABSTRACT

THE DIRECT AND INDIRECT EFFECTS OF PERFECTIONISM AND BODY RELATED PERCEPTIONS ON DISPOSITIONAL FLOW IN EXERCISE SETTING

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March 2015, 159 pages

The purpose of the present study was to test a model explaining exercise participants' dispositional flow with perfectionism (self-oriented and socially-prescribed perfectionism) and body related perceptions (perceived body fat, perceived appearance and social appearance anxiety) in the exercise setting. The sample of the study consisted of 446 exercise participants (216 female, *Mage* = 26.85, *SD* = 6.60; 230 male, *Mage* = 24.40, *SD* = 5.93) exercising regulary more than six months. Multidimensional Perfectionism Scale, Physical Self-Description Questionnaire, Social Appearance Anxiety Scale, and Dispositional Flow Scale were used for the data collection. Path analysis was run in order to examine the patterns of relationships among variables. The findings of the study revealed that perceived body fat was a significant predictor of perceived appearance and

social appearance anxiety. The perceived body fat, perceived appearance, social appearance anxiety and dispositional flow were predicted by self-oriented perfectionism. In addition, socially-prescribed perfectionism significantly predicted perceived appearance and social appearance anxiety. However, findings revealed that socially-prescribed perfectionism did not predict perceived body fat and dispositional flow. Finally, the findings demonstrated that the dispositional flow was predicted by self-oriented perfectionism, perceived appearance, and social appearance anxiety, and these variables explained 21 % of the total variance in dispositional flow.

Keywords: Perfectionism, Body related perceptions, Dispositional flow

ÖZ

MÜKEMMELİYETÇİLİK VE BEDENLE İLGİLİ ALGILARIN EGZERSİZ ORTAMINDA SÜREKLİ OPTİMAL PERFORMANS DUYGU DURUMU ÜZERİNE DOĞRUDAN VE DOLAYLI ETKİLERİ

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Bu araştırmanın amacı, egzersiz katılımcılarında sürekli optimal performans duygu durumu yordayıcılarını incelemektir. Bu çalışmada, kendine yönelik mükemmeliyetçilik, başkaları tarafından belirlenen mükemmeliyetçilik ve bedenle ilgili algıların ve bunların birleşiminin sürekli optimal performans duygu durumunu ne ölçüde yordadığı bir modelle test edilmiştir. Araştırmanın örneklemi, en az 6 aydır düzenli egzersiz yapan 446 (216 kadın, yaş ortalaması 26.85, *S* = 6.60; 230 erkek, yaş ortalaması 24.40, *S* = 5.93) egzersiz katılımcısından oluşmuştur. Veri toplamak için Çok Boyutlu Mükemmeliyetçilik Ölçeği, Kendini Fiziksel Tanımlama Ölçeği, Sosyal Görünüş Kaygısı Ölçeği ve Sürekli Optimal Performans Duygu Durumu Ölçeği kullanılmıştır. Araştırmanın bulguları, algılanan vücut yağının, algılanan görünüm ve sosyal görünüş kaygısının anlamlı bir

yordayıcısı olduğunu göstermiştir. Algılanan vücut yağı, algılanan görünüm, sosyal görünüş kaygısı ve sürekli optimal performans duygu durumunun kendine yönelik mükemmeliyetçilik tarafından yordandığı görülmektedir. Ayrıca, başkaları tarafından belirlenen mükemmeliyetçiliğin, algılanan görünüm ve sosyal görünüş kaygısını anlamlı olarak yordadığı görülmektedir. Ancak bulgular, başkaları tarafından belirlenen mükemmeliyetçiliğin algılanan vücut yağı ve sürekli optimal performans duygu durumunu yordamadığını göstermiştir. Sonuç olarak, sürekli optimal performans duygu durumunun, kendine yönelik mükemmeliyetçilik, algılanan görünüm ve sosyal görünüş kaygısı tarafından yordandığı ve bu değişkenlerin sürekli optimal performans duygu durumundaki toplam varyansın % 21'ini açıkladığını göstermiştir.

Anahtar Kelimeler: Mükemmeliyetçilik, Bedenle ilgili algılar, Sürekli Optimal Performans Duygu Durumu

To my parents,

Duygu - Hayrettin Erkmen

&

To the memory of my cousins

Onur Uğur - Emre Berber

ACKNOWLEDGMENTS

I would like to thank my supervisor Assoc. Prof. Dr. Sadettin Kirazcı for guiding me with his smiling face through this challenging process, for letting me study in my field of interests, for providing and a relaxed atmosphere, and for letting me gain different viewpoints. I would also like to thank my Co-supervisor for her guidance, the time and effort that Prof. Dr. Hülya Aşçı has given, for her support throughout this study and during my entire education.

I would also like to thank my dissertation committee members. I am grateful to Assoc. Prof. Dr. M. Levent İnce for his encouragement and valuable feedbacks; to Assist. Prof. Dr. Yesim Çapa Aydın for her kindhearted support, constructive feedbacks and clarifications; to Assoc. Prof. Dr. F. Zişan Kazak Çetinkalp & Assoc. Prof. Dr. Emine Çağlar for their kindness and constructive comments.

I extend thanks to other faculty and staff at the Physical Education and Sport Department of METU who contributed to my training over the years. I sincerely thank my dear friends; Merve Altun, Deniz Hünük, Mine Müftüler, Kıvanç Semiz, Ayşen Çevik, Özlem Alagül, Serap Usta Sarıkaya, Betül Coşkun, Özlem Haydaroğlu and all my colleagues at PES department at METU for their support and encouragement through this long and challenging journey.

I want to express my special thanks to Ayten Eroğlu who wrote her dissertation at the same time with me, I am gratefull to her for her accommpanying me on this road, for thinking me like a mother, and for her endless support in every sense. I would also like to thank Muhammed Ali Malçok for his endless moral support. I know that I am lucky to have such good people.

Last but not least, I would like to express my deepest gratitude to my family. My parents, Duygu & Hayrettin Erkmen have made everything possible by giving their endless love and they just made it impossible to describe how much I love them.

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CHAPTER I

INTRODUCTION

This chapter will focus on the background, purpose and significance of the study. The proposed model and definitions of study variables are also presented in this chapter.

1.1 Background of the Study

Positive psychology has been emphasized as a new branch of psychology. It has changed the attention of researchers to conduct a study on the positive features of human existence (Seligman & Csíkszentmihályi, 2000). Seligman and Csíkszentmihályi (2000) suggested that positive psychology emerged in order to enable an alteration in the focus of psychology. Positive psychology provides an applied approach to repair the worst things in life, and as well build richer, more fulfilling and satisfying existence related to positive traits. The positive psychology focuses on subjective experiences including well-being and satisfaction; hope and optimism for the future; and flow and happiness (Seligman & Csíkszentmihályi, 2000).

Flow is a central concept within positive psychology also known as a subjective experience receiving an increasing amount of attention in sport and exercise psychology studies. Flow is considered to be an optimal experience which occurs whne a person completely involved in the task at hand (Csíkszentmihályi, 1990), and flow induces to several positive

experiences (Jackson, 2000). Flow might be associated with positive emotions, skill development, personal growth, positive sport experiences, improved performance, increased psychological well-being, and attaining a meaningful life (Asakawa, 2004; Csíkszentmihályi, 1990; Jackson, 2000).

As studies on flow experience in sport and exercise setting has gained importance, researchers have investigated the flow experiences on different samples such as elite athletes (Gould, Ecklund, & Jackson, 1992; Jackson, 1992a, 1992b, 1995, 1996; Kowal & Fortier,1999; Russell, 2001), non-elite and recreational athletes (Catley & Duda, 1997; Crust & Swann, 2013; Jackson, Kimiecik, Ford, & Marsh, 1998; Jackson, Thomas, Marsh, & Smethurst, 2001; Moreno, Cervelló, & González-Cutre, 2008; Schüler & Brunner, 2009; Stein, Kimiecik, Daniels, & Jackson, 1995).

The previous studies on flow experiences in the field of sport and exercise indicated that flow experiences are affected by different variables. Some of the factors facilitate flow experiences of individuals, while others disrupt or inhibit the flow experiences. For example, the cognitive and physical variables of preparation, planning, readiness, positive thoughts, confidence, and environmental factors can facilitate athletes' flow experience in sport setting (Chavez, 2008; Jackson, 1992a, 1995; Jackson et al., 1998; Jackson et al., 2001; Russell, 2001; Young, 2000). On the other hand, a lack of motivation to perform, over arousal before a competition, negative or non-optimal team interactions, poor performance, non-optimal confidence, negative thoughts, self-doubt, negative feedback, and low levels of perceived sport ability affect flow negatively (Jackson, 1995; Jackson et al., 1998, 2001; Montanez, 2011; Russell, 2001, Young, 2000).

As exercise shows similarities with sport with regards to physical demands, influencing factors of flow experience may be valid in an exercise setting. However, there are limited studies on the factors influencing flow experience in exercise and physical activity settings.

The flow experience is considered as a desired outcome because of flow is a source of motivation and an enjoyable state for participants involved in physical activity (Jackson, 1996). The positive experiences obtaining from an activity motivate athletes to actively continue and persevere in their sport (Jackson & Csíkszentmihályi, 1999). If individuals experience a feeling of enjoyment in an activity, they will continue being physically active. For this reason, it would be better flow experiences investigated from different point of view in order to explain contribution of flow to maintain exercise behavior and provide benefit from regular exercise participation of individuals. Moreover, addressing the factors affecting flow experience as an issue might be provide insight into possible facilitators, preventers, and disruptors of flow experience. Although there are not direct studies focused on factors influencing flow experience in exercise setting, there are studies related to facilitators, disruptors, and debilitators of flow experiences in sport settings as previously reported (Jackson, 1992a, 1995; Jackson et al., 2001; Russell, 2001; Young, 2000). Therefore, this study focuses on specific variables assumed that influence the flow experience in the field of exercise.

Perfectionism is the one of the assumed influencing factors of flow experience in this study. For example, researchers have indicated that higher level perfectionism in athletes has been related with various correlates including heightened precompetitive- competitive anxiety (Hall, Kerr, & Matthews, 1998; Frost & Henderson, 1991), social physique anxiety (Hasse, Prapavessis, & Owens, 2002), competitive trait anger (Dunn, Gotwals, Causgrove Dunn, & Syrotuik, 2006), eating disorders (Hewitt, Flett, & Ediger, 1995) and burnout (Appleton, Hall, & Hill, 2009; Hill & Appleton, 2011; Hill, Hall, Appleton, & Kozub, 2008). Based on the previous study (Martin, Tipler, Marsh, Richards, & Williams, 2006), maladaptive perfectionism can be associated with fear of failure in follow up exercise, avoidance of physical activity or worry about not exercising. Researchers (Flett, Hewitt, & De Rosa, 1996; Hewitt & Flett, 1991) asserted that socially-prescribed perfectionism refleted the maladaptive aspects of perfectionism. Further, previous study

(Longbottom, Grove, & Dimmock, 2010) indicated that maladaptive perfectionism was significantly related with uncertainty about the conduct of exercise, fear of failure, and avoidance of physical activity. However, this study also indicated that adaptive perfectionism was positively related with planning physical activity, persistence in physical activity, and self-efficacy. Stoll, Lau and Stoeber (2008) suggested that perfectionism may lead to performance enhancement especially when learning a new training task, thus, positive striving perfectionism is considered to have potential to enhance performance.

Concerning this study, maladaptive perfectionism (Socially-prescribed perfectionism) may be seen as a restricting factor for experiencing flow because of critical evaluations, fear of failure, setting high level personal standards, and concerning over mistakes (Flett & Hewitt 2002; Frost, Marten, Lahart, & Rosenblate, 1990). On the contrary, through the flow experience individuals may experience high sense of control instead of worry about failure (Shüler & Brunner, 2009). Therefore, adaptive perfectionism (self-oriented perfectionism) may contribute the flow experience of exercise participants by means of positive appearance perceptions.

Other variables, assumed influence flow experience in this study, are body related perceptions. There are also very few studies represent the associations among flow experience and body related perceptions of exercisers. According to the relevant studies, it can be concluded that body related perceptions such as body image satisfaction, perceived body attractiveness and social physique anxiety might be possible factors influencing the flow experiences of exercise participants because many people worry about how they appeared to others when they are exercising (Crawford & Eklund, 1994; Lantz, Hardy, & Ainsworth, 1997).

1. 2 Purpose of the Study

The purpose of the present study was to examine the relationships among the regular exercise participants' perfectionism, body related perceptions, and dispositional flow. It was proposed that perfectionism (self-oriented and socially-prescribed perfectionism), body related perceptions (perceived body fat, perceived appearance and social appearance anxiety) may have direct and indirect effects on the regular exercise participants' dispositional flow.

In this line, this research intends to a) determine whether there are relationships among self-oriented and socially-prescribed perfectionism and regular exercisers dispositional flow, b) examine the direct and indirect effects of self-oriented, socially-prescribed perfectionism and body related perceptions on dispositional flow.

1.3 Hypothesized Model Development

Within the exercise setting, feeling of enjoyment might support exercise maintenance of exercise participants is considered significant to improve physically and mentally healthy lifestyle. As a result of flow experience, individuals' level of positive affect may increase like feeling peppy, enthusiastic and happy (Asakawa, 2004; Collins, Sarkisian, & Winner, 2009; Csíkszentmihályi & Hunter, 2003). Happy individuals are generally more likely to feel more enjoyment from their leisure activities, to experience flow, and to be more pleased with their activities (Lyubomirsky, King, & Diener, 2005).

In addition, the perception of physical appearance predicts exercise motivation and behavior (Ingledew & Sullivan, 2001; Russell & Cox, 2003), affects rates of exercise participation, types of exercise and preferences related to exercise environments (Focht &

Hausenblas, 2004; Lantz et al., 1997). As mentioned before, perfectionism might also lead to positive or negative results or excessive exercise behavior in an exercise setting. Therefore, examining of the relationships between perfectionism and flow experience are important to understand the how factors may affect exercise participants' flow experiences in an exercise setting. The model that was tested in the current study composed of the exogeneous variables (self-oriented and socially-prescribed perfectionism), and endegeneous variables (body fat, appearance, and social appearance anxiety, and dispositional flow). According to the model, self-oriented and socially-prescribed perfectionism were proposed to directly predict body related perceptions and dispositional flow; body related perceptions to directly predict dispositional flow. In addition, direct and indirect paths from self-oriented and socially-prescribed perfectionism to dispositional flow were tested. Figure 1.1 presents the proposed model for the current study.

Given that the aim of the current study was to investigate relationships among the aforementioned study variables. Therefore, the present study was focused on the following research questions:

1- Are there gender differences in self-oriented perfectionism, socially-prescribed perfectionism, body related perceptions and dispositional flow?
2- To what extent body related perceptions are predicted by self-oriented and socially-prescribed perfectionism?
3- To what extent dispositional flow is predicted directly by body fat, appearance, social appearance anxiety, self-oriented and socially-prescribed perfectionism, and indirectly by perfectionism through body related perceptions?

1.4 The Hypothesized Paths

The following path model was proposed for the current study to examine the direct effects of body related perceptions on dispositional flow of regular exercise participants. However, in the literature, there is no specific model developed in order to see and set of the relationships among the factors associated with perfectionism, body related perceptions and flow state in exercise setting. The details of these variables and their associations with flow state were presented in the next chapter, literature review.

1.4.1 The Direct Effects of the Path Model

Path A (Self-oriented to Perceived body fat): Self-oriented perfectionism is positively related to perceived body fat. Exercise participants who have higher self-oriented perfectionism level are expected to have higher body fat perception.

Path B (Socially prescribed to Perceived body fat): Socially-prescribed perfectionism is positively related to body fat perception. Exercise participants who have higher socially-prescribed perfectionism level are expected to have higher level body fat perception.

Path C (Self-oriented to Social appearance anxiety): Self-oriented perfectionism is positively related to social appearance anxiety. Exercise participants who have higher self-oriented perfectionism level are expected to have higher social appearance anxiety.

Path D (Socially prescribed to Perceived appearance): Socially-prescribed perfectionism is negatively related to perceived appearance. Exercise participants who have higher socially-prescribed perfectionism level are expected to have negative appearance perception.

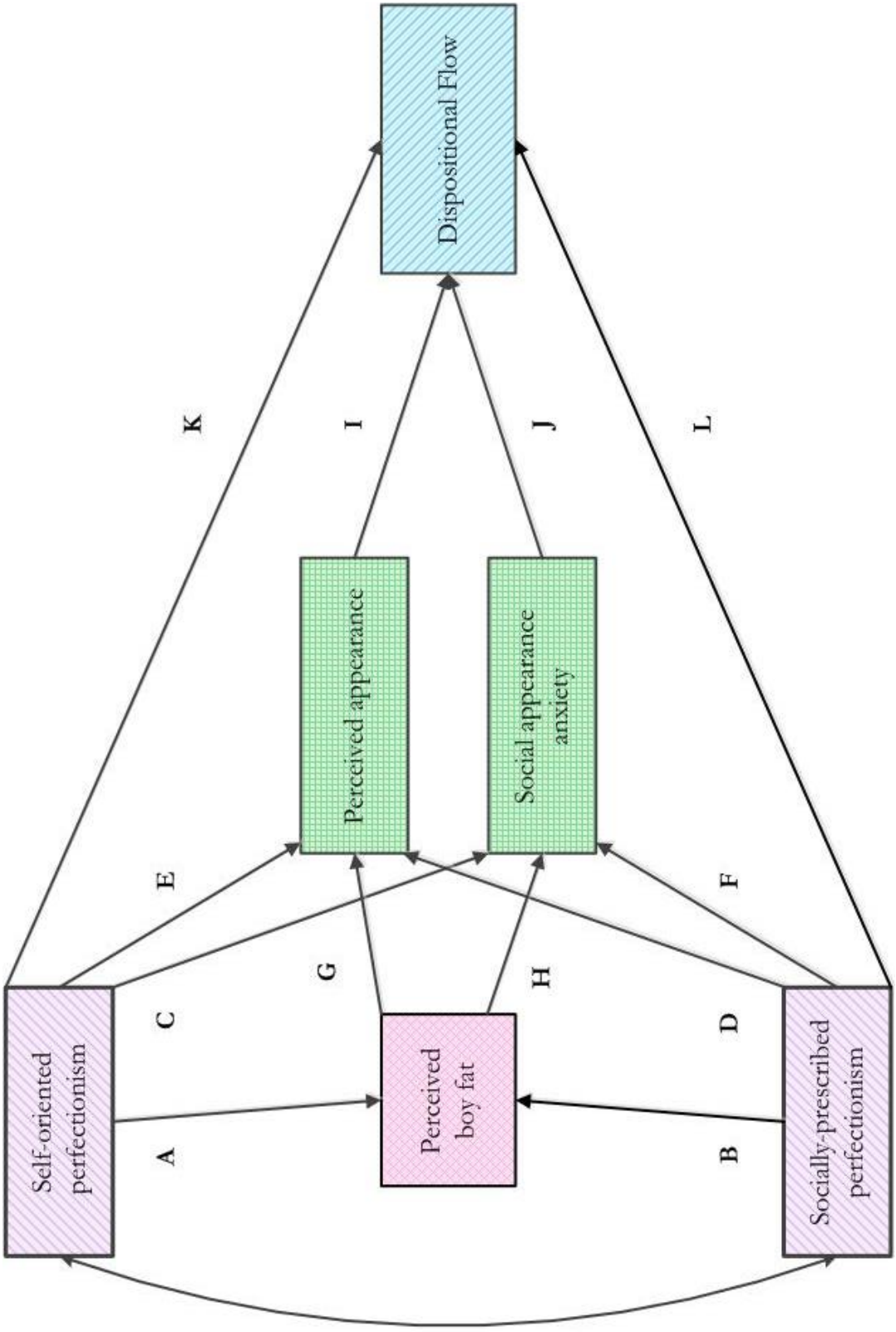

Figure 1.1 Proposed path diagram

Path E (Self-oriented to Perceived appearance): Self-oriented perfectionism is positively related to perceived appearance. Exercise participants who have higher self-oriented perfectionism level are expected to have positive appearance perception.

Path F (Socially prescribed to Social appearance anxiety): Socially-prescribed perfectionism is positively related to social appearance anxiety. Exercise participants who have higher socially-prescribed perfectionism level are expected to have higher level social appearance anxiety.

Path G (Perceived body fat to Perceived appearance): Perceived body fat is negatively related to perceived appearance. Exercise participants who have higher perceived body fat score are expected to have negative appearance perception.

Path H (Perceived body fat to Social appearance anxiety): Perceived body fat is positively related to social appearance anxiety. Exercise participants who have higher perceived body fat score are expected to have higher level social appearance anxiety.

Path I (Perceived appearance to Dispositional flow): Perceived appearance is positively related to the dispositional flow. Exercise participants who perceive their appearance positively are expected to have higher level dispositional flow.

Path J (Social appearance anxiety to Dispositional flow): Social appearance anxiety is negatively related to the dispositional flow. Exercise participants who have higher level social appearance anxiety are expected to have a lower level dispositional flow.

Path K (Self-oriented perfectionism to Dispositional flow): Self-oriented perfectionism is positively related to the dispositional flow. Exercise participants who have higher level self-oriented perfectionism are expected to have a higher level dispositional flow.

Path L (Socially-prescribed perfectionism to Dispositional flow): Socially-prescribed perfectionism is negatively related to the dispositional flow. Exercise participants who have higher level socially-prescribed perfectionism are expected to have a lower level dispositional flow.

1.4.2 The Indirect Effects of the Path Model

Path E & I (Self-oriented perfectionism to Perceived appearance to Dispositional flow): Self-oriented perfectionism is positively related to perceived appearance, which in turn, is positively related to the dispositional flow. In other words, exercise participants who have high level self-oriented perfectionism are expected to have positive appearance perception and are expected to have higher level dispositional flow.

Path C & J (Self-oriented perfectionism to Social appearance anxiety to Dispositional flow): Self-oriented perfectionism is positively related to social appearance anxiety, which in turn, is negatively related to the dispositional flow. In other words, exercise participants who have high level self-oriented perfectionism are expected to have high level social appearance anxiety and are expected to have lower level dispositional flow.

Path D & I (s-prescribed perfectionism to Perceived appearance to Dispositional flow): Socially-prescribed perfectionism is negatively related to perceived appearance, which in turn, is positively related to the dispositional flow. Exercise participants who have high

level socially-prescribed perfectionism are expected to have positive appearance perception and are expected to have higher level dispositional flow.

Path F & J (Socially-prescribed perfectionism to Social appearance anxiety to Dispositional flow): Socially-prescribed perfectionism is positively related to social appearance anxiety, which in turn, is negatively related to the dispositional flow. Exercise participants who have high level socially-prescribed perfectionism are expected to have lower level social appearance anxiety and are expected to have higher level dispositional flow.

Path G & I (Perceived body fat to Perceived appearance to Dispositional flow): Perceived body fat is negatively related to perceived appearance, which in turn, positively related to the dispositional flow. Exercise participants who have positive body fat perception are expected to have positive appearance perception and are expected to have higher level dispositional flow.

Path H & J (Perceived body fat to Social appearance anxiety to Dispositional flow): Perceived body fat is positively related to social appearance anxiety, which in turn, negatively related to the dispositional flow. Exercise participants who have higher body fat perception are expected to have higher level social appearance anxiety and are expected to have lower dispositional flow.

Path A & G & I (Self-oriented perfectionism to Perceived fat to Perceived appearance to Dispositional flow): Self-oriented perfectionism is positively related to perceived body fat, which in turn, negatively related to perceived appearance. Perceived appearance, in turn, is positively related to the dispositional flow. That is, exercise participants who have higher level self-oriented perfectionism are expected to have higher body fat perception, leading

them to have negative appearance perception, resulting in having lower level dispositional flow.

Path A & H & J (Self-oriented perfectionism to Perceived fat to Social appearance anxiety to Dispositional flow): Self-oriented perfectionism is positively related to perceived body fat, which in turn, positively related to social appearance anxiety. Social appearance anxiety, in turn, is negatively related to the dispositional flow. That is, exercise participants who have higher self-oriented perfectionism level are expected to have higher body fat perception, leading them to have higher level social appearance anxiety, resulting in having lower level dispositional flow.

Path B & G & I (Socially-prescribed perfectionism to Perceived fat to Perceived appearance to Dispositional flow): Socially-prescribed perfectionism is positively related to perceived body fat, which in turn, negatively related to perceived appearance. Perceived appearance, in turn, is positively related to the dispositional flow. That is, exercise participants who have higher socially-prescribed perfectionism level are expected to have higher body fat perception leading them to have negative appearance perception, resulting in having lower dispositional flow.

Path B & H & J (Socially-prescribed perfectionism to Perceived fat to Social appearance anxiety to Dispositional flow): Socially-prescribed perfectionism is positively related to body fat perception, which in turn, positively related to social appearance anxiety. Social appearance anxiety, in turn, is negatively related to the dispositional flow. That is, exercise participants who have higher socially-prescribed perfectionism level are expected to have higher body fat perception, leading them to have higher social appearance anxiety score, resulting in having lower dispositional flow.

1.5 Significance of the Study

The notion of the ideal physique has been increasing in prevalence in both women and men. As women and men tend to internalize the ideal standards, this may contribute to body dissatisfaction. Exercise is one of the broadly accepted way to control the physical appearance. Therefore, both women and men are engaged in regular exercise and physical activity. However, researchers (Anton, Perri, & Riley, 2000) found that body size discrepancies were associated with low level physical activity. According to authors, when unrealistic body standards are not met, young women' motivation to exercise might decrease. On the contrary, exercising for fitness, health, and enjoyment has been found to associate with higher self-esteem and body satisfaction (Tiggemann & Williamson, 2000).

From this point of view, it can be concluded that the flow experience might play an important role for maintainig regular exercise behavior. In this regard, the current study is intended to examine direct and indirect effects of perfectionism and body related perceptions (body fat, appearance, and social appearance anxiety) on the regular exercise participants' dispositional flow. To my knowledge this would be the first study that investigates whether there are relationships among perfectionism, body related perceptions and exercisers' flow experience. Therefore, this study has a potential to make unique contribution to perfectionism and flow experience literature as it is the first time investigation of a model with these variables. Thus, results of the present study add to the existing literature by examining the relationships among perfectionism, body related perceptions and dispositional flow, and consequently, this study may shed more light on flow experience, might contribute to the limited literature related to perfectionism, body related perceptions and flow experience.

1.6 Definitions of the Terms

Exercise: was defined as "a subcategory of physical activity that is planned, structured, repetitive, and purposive in the sense that improvement or maintenance of one or more components of physical fitness is an objective" (Caspersen, Powell, & Christenson, 1985, p. 129).

Social appearance anxiety: is clarified as "anxiety about being evaluated for one's appearance, as opposed to anxiety about specific aspects of appearance (e.g., one's hair, one's nose, or one's chest size)" (Hart et al., 2008, p.49).

Perfectionism: is defined as striving for flawlessness and setting excessively high personal standards for performance accompanied by an overcritical critical self-evaluation (Frost et al., 1990; Hewitt & Flett, 1991).

Self-oriented perfectionism: is the intrapersonal component of multidimensional perfectionism involves self-imposed expectations and consists of beliefs that striving for perfection, thus being perfect is important (Hewitt & Flett, 1991).

Socially-prescribed perfectionism: is the interpersonal form of multidimensional perfectionism includes the perception that others imposing excessively high standards on onself. Socially-prescribed perfectionism derives from the one's perceptions of others and that acceptance by others is conditional on fulfilling these high standards (Hewitt & Flett, 1991; Stoeber, Feast, & Hayward, 2009).

Flow: can be defined as an optimal and enjoyable experience that stands outs being better than average in some way, where a person is completely involved in what he or she is doing (Csíkszentmihályi, 1990; Jackson & Eklund, 2004). Flow experience also

characterized by total concentration, joy, high interest in the activity and where the experience is very rewarding in and itself (Moneta & Csíkszentmihályi, 1996).

Dispositional flow: assesses the general tendency to experience flow characteristics within a particular setting determined by the participant (Jackson & Eklund, 2004).

Total Flow: also known as global flow. It refers to the overall experience of flow rather than the dimensions of the flow (Jackson & Eklund, 2004).

CHAPTER II

LITERATURE REVIEW

The following chapter reviews the body of the literature on the study variables like perfectionism, related perceptions and flow state This literature review includes four sections; 1) flow, 2) perfectionism, 3) body related perceptions, 4) perfectionism, body related perceptions and flow.

2. 1 Flow

Extensive investigations were conducted by Csíkszentmihályi (e.g., Csíkszentmihályi, 1990, 2000) have showed that if a person become involved in an activity which is challenging, controllable, and intrinsically motivating, he or she may experience a unique psychological state called as “flow”.

Flow is a harmonious subjective experience in which individuals become completely involved in an activity and mind and body work together effortlessly (Csíkszentmihályi, 1990). Flow is an enjoyable psychological state that is reflected in a holistic sensation that people feel when they are totally immersed in the activity they do (Csíkszentmihályi, 1990, 1993). The activity choice is one of the most important elements to being able to experience flow and varies from individual to individual. As flow has no age limit each person can experience flow, and this psychological state can happen anywhere, at any time,

when opportunities for action are well matched to the person's capacities (Csíkszentmihályi & Csíkszentmihályi, 1988).

Deci and Ryan (1985) suggested that flow experience can be considered as a purer instance of intrinsic motivation. Additionally, flow experience seen as an intrinsic motivation to do something without effort. If a person experience flow in an activity several times, she or he will perform that activity for its own sake; thus the activity becomes intrinsically motivated. For this reason, flow state is not only a positive affect, but also it is an effective experience outcome (Csíkszentmihályi, 1990).

Flow is often used interchangeably with peak experience and peak performance. Although there are similarities between peak experience, peak performance, and flow, these constructs can be differentiated in terms of the levels of enjoyment and performance that are involved. The peak experience indicates to a high level of enjoyment and fulfillment, but it does not necessarily involve performance. Peak performance involves an optimal level of performance, but is not necessarily accompanied by enjoyment. It can be objectively measured in terms of scoring. On the other hand, flow is an intrinsically rewarding (autotelic experience) involving both enjoyment and performance, but is not defined by their levels of intensity. Flow state may be the underlying component of peak experience (Jackson, 1992a; Privette, 1983; Privette & Brunderick, 1991). Peak performance refers to an athletic performance that is the highest quality possible for an athlete. Most athletes experience flow state during a peak performance, but not every flow state result in a peak performance (Jackson & Csíkszentmihályi, 1999).

2. 1. 1 Dimensions of Flow

Jackson and Csíkszentmihályi (1999) both focused research on the theory of flow and they described flow state in similar terms characterized by common features that called the flow dimensions. These dimensions are very crucial to understand the underlying mechanism of the flow experience. Flow dimensions are identified below with views of sport settings.

Challenge-Skill Balance

It is an essential component of flow, known as "golden rule", indicates that the balance of the perceived challenge against the skills a person believes she or he has (Jackson & Csíkszentmihályi, 1999). If the athlete's perceived ability and perceived challenge don't balance in their mind, it will most likely inhibit or completely stop the flow. Then the athletes will become frustrated or anxious (Weinberg & Gould, 2003). If the perceived challenge is greater than the perceived skill, it leaves the athlete feeling anxious or worried that he or she will not be able to complete the task without pain or embarrassment, or possibly not complete the task at all. If the perceived challenge is less than the athlete's perceived ability, then it likely leaves the athlete with feelings of boredom or apathy. However, enjoyment lies at the boundary between boredom and anxiety in which the challenge and skills are balanced (Csíkszentmihályi, 1990).

Merging of action and awareness

Action and awareness merge only if a person is fully involved in what she or he is doing (Jackson & Csíkszentmihályi, 1999). Athletes describe a sense of effortlessness and spontaneity associated with this flow dimension of action-awareness merging. Athletes describe feelings of automaticity as a process in which well-learnt routines enable

subconsciously and pay full attention to their actions. Thus, at this stage that the mind and body seem to work together and merge into one (Jackson & Eklund, 2004).

Clear goals

Goals are an essential part of achieving something worthwhile and the focusing that goals provide to actions also means that they are an integral component of the flow experience. Knowledge of objectives, awareness, understanding fine details required for a successful outcome, and preparation and planning for performance all contribute to experience flow (Jackson & Eklund, 2004). Goals should be set before an activity begins so that participants know exactly what they to do. As participants know exactly what is expected of them, there is no need to doubt their actions (Jackson & Csíkszentmihályi, 1999).

Unambiguous feedback

Unambiguous feedback can help the individuals to stay in tune and in control of what they are doing (Jackson & Csíkszentmihályi, 1999). When in flow, feedback is easier to receive. This dimension allows the athlete to understand the changes within his/her body and external environment. For example, sports activities provide several feedbacks such as kinesthetic awareness, coaching, performance evaluation by others and self (Jackson & Csíkszentmihályi, 1999). In this way an athlete can make adjustments according to the different situations. When receiving any feedback related to flow experience, the performer does not need to stop and reflect how things are going. Information is seamlessly integrated into performance moment by moment (Jackson & Eklund, 2004).

Total concentration on the task at hand

The total concentration on the task at hand is one of the common descriptions of the flow experience (Csíkszentmihályi, 1990). When in flow, one is totally focused in the present on a specific task being performed. Since, the focus is complete and purposeful and there are no extraneous thoughts, and the distractibility that often accompanies involvement on any task is absent (Jackson & Eklund, 2004).

Sense of control

This dimension is not only about having a sense of control, but also by lacking the fear of being out of control (Csíkszentmihályi, 1990). Sense of control can save individuals from the fear of failure, and on the contrary it can create a feeling of empowerment (Jackson & Csíkszentmihályi, 1999). Failure thoughts are nowhere to be found during flow, enabling the individual to take on the challenges at hand. The experience of total control most likely moves an individual away from the experience of flow and on to relaxation or boredom. The possibility of keeping things under control, keeps flow active. Like flow itself, the sense of control last only a short time (Jakson & Eklund, 2004).

Loss of self-consciousness

Most people live their lives surrounded by evaluations of how they are doing generally these arise from many different sources, one of the most insistent is from the self. It is difficult to stop constantly evaluating how we are doing in the eyes of others. This evaluation is necessary for flow experience. When an individual is no longer concerned with what others think of him or her, this individual has lost self-consciousness (Jackson & Eklund, 2004). As previously mentioned in the previous dimension, in order to experience a state of flow, one must be able to eliminate outside distractions. The loss of

self-consciousness in the flow experience is a dimension that can actually leave individuals with a stronger and more positive perception of themselves, become completely involved in the activity and lose any self-doubt they may have (Jackson & Csíkszentmihályi, 1999).

Transformation of time

Deep moments of flow experience seem to transform our time perceptions. For example, the flow experience refers to time stop for some or time seems to slow for others. On the contrary, for others, time pass more quickly than expected. These sensations stem from the intense involvement of the state of flow (Jackson & Eklund, 2004). This situation is described as a loss of time sense. When this dimension is experienced, individual feel free from the time dependence (Jackson & Eklund, 2004).

Autotelic experience

Csíkszentmihályi (1990) described the autotelic experience that is an intrinsically rewarding activity which is not done with the future benefit expectation. Many activities require to put an individual effort that individuals may be reluctant to do, but if an individual receive positive feedback, activity starts to become an intrinsically rewarding process. Autotelic experience provides high motivation for the further involvement (Jackson & Eklund, 2004). Autotelic experience was also described the end result of the other eight flow dimensions.

These nine flow dimensions provide an optimal experience, and a conceptually coherent framework to understand the optimal experience (Jackson & Eklund, 2004).

2. 1. 2 Flow Models

The three flow models have been identified in the literature produced by two crucial dimensions of the flow state (individual's challenge of the activity and skill). When the challenge and skill balance in balance or equal the flow experience occurs (Csíkszentmihályi, 1982). There have been three models to explain flow experience mechanism including flow channel, four channels, and eight channel models described below.

Flow channel model: The first flow state graphic model represented by Csíkszentmihályi (1975, 2000) includes flow, anxiety, and boredom states. The two theoretically most important dimensions of the flow experience, challenges and skills, are represented on the two axes of the diagram (see Figure 2.1). When skills and challenges are equal the experience will be optimal identified as flow channel. If the perceived challenge is high and the perceived skills are low, an individual might experience anxiety. On the contrary, if the perceived challenge is moderate or low and the perceived skills are high; an individual could experience boredom (Csíkszentmihályi, 1990).

The flow state occurs when challenges and skills balanced with any level challenges and skills such as low, medium, high. Although these points are seen in the flow state borders, the three states are quite different, flow state intensity may lead to different experiences at the lowest skill and challenge levels represent a less intense (micro-flow), highest level of skill and challenge represent deeper and more complex experiences (macro-flow). If individuals experienced flow state continually by means of activity, this activity might present increasing challenges that force individual to increase her or his level of skill. In this way, flow activities can lead to growth and discovery (Csíkszentmihályi, 1990).

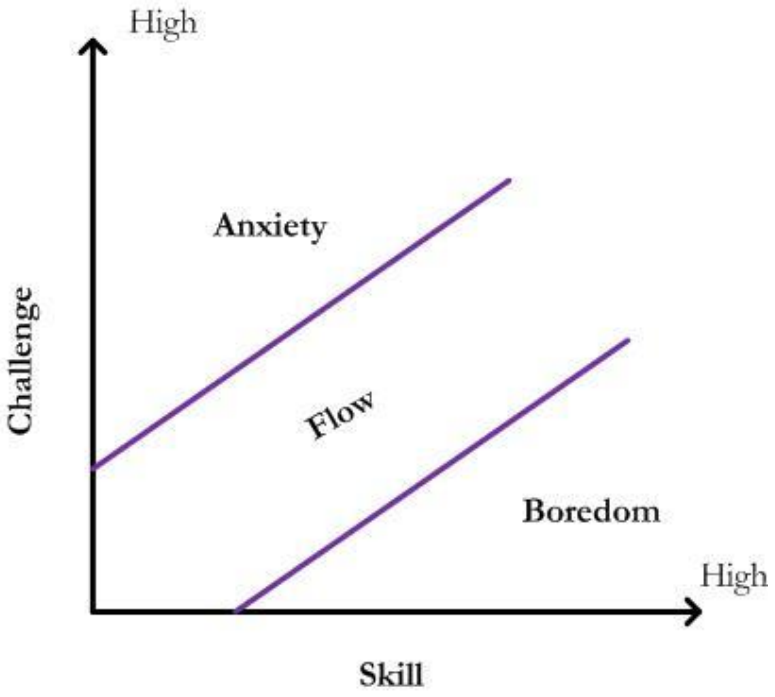

Figure 2.1 Flow channel model (adapted from Csíkszentmihályi, 1990).

Four channel model: As studies showed that original flow channel model inadequate predicting indicators of flow state (Csíkszentmihályi, 1990; Massimini & Carli, 1988). Csíkszentmihályi (1988) proposed the four channel flow model, including apathy, boredom, anxiety (frustration), and flow. Therefore, Massimini and Carli developed a four channel flow model to mention this prediction issue. The model includes four quadrants allowing researchers to operationalize the experience of flow and posited that high/low challenge and skill levels create four channels: apathy, boredom, anxiety, and flow. Low skill and low challenge create apathy; high skill and low challenge create boredom; low skill and high challenge create anxiety; high skill and high challenge create flow (see Figure 2.2).

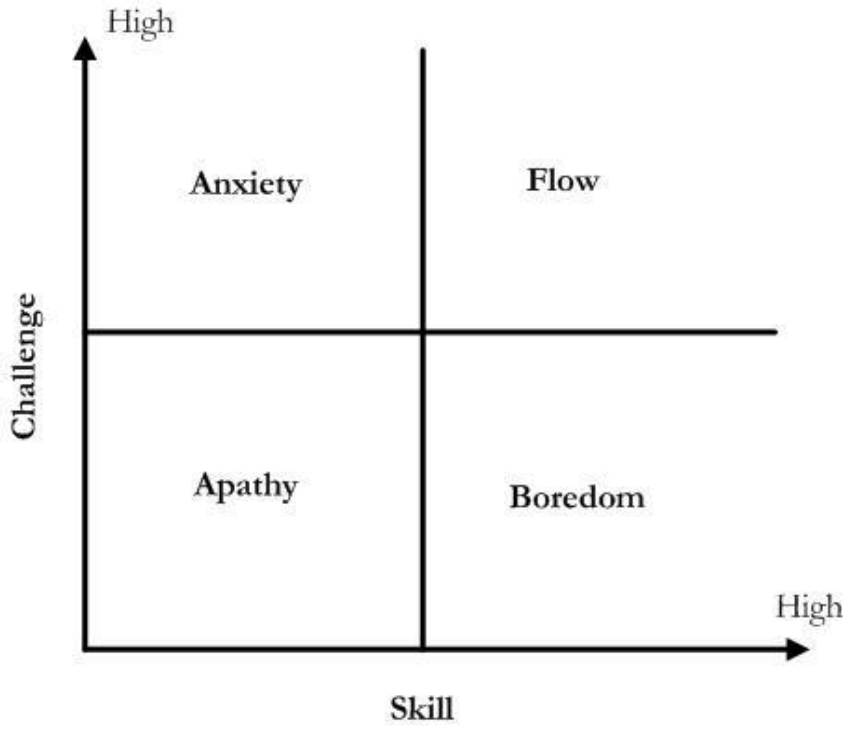

Figure 2.2 Four channel model (adapted from Csíkszentmihályi & Csíkszentmihályi, 1988).

Eight channel model: Reserachers (Massimini & Carli 1988; Massimini, Csíkszentmihályi, & Carli, 1987) expanded the previous models and made flow model more sophisticated. This model, including eight dimensions was named the Experience Fluctuation Model (channel model), provides more accurate and realistic classification system. According to model, challenge and skill levels are divided into three like low, moderate and high. Then, these three challenge-skill levels divided into eight channel, and anxiety, apathy, boredom, and flow, arousal, control, relaxation, and worry categories were added into the eight channel model (see Figure 2.3). Csíkszentmihályi (1997) published the graph to illustrate one further aspect of flow.

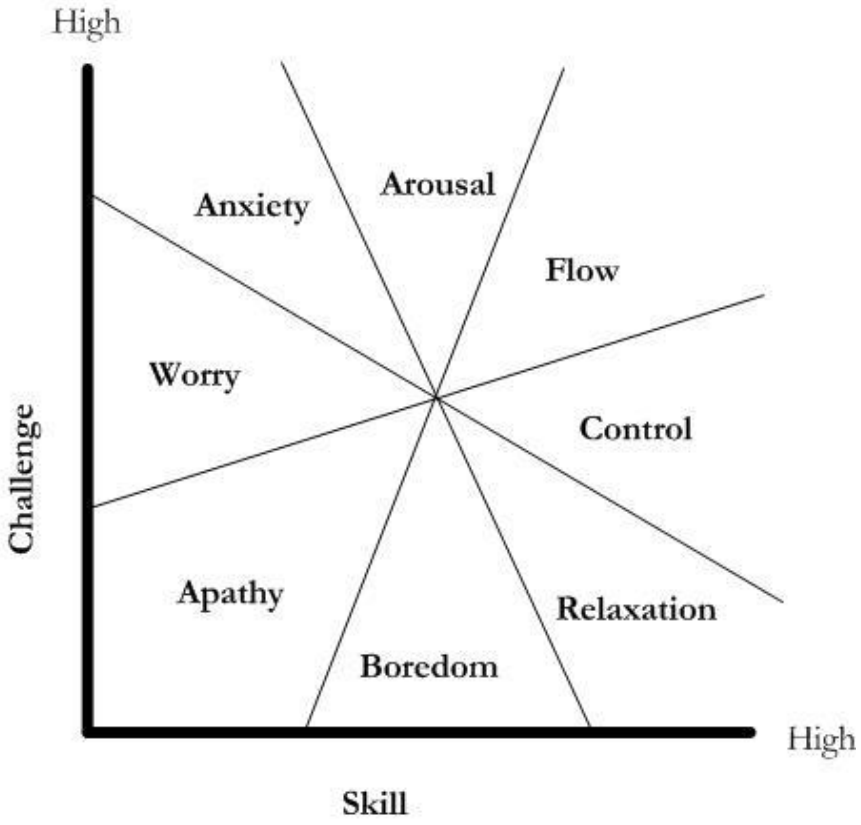

Figure 2.3 Eight channel model (adapted from Csíkszentmihályi, 1997).

2. 1. 3 Flow in Sport and Exercise Setting

Previous studies in the sport setting primarily focused on the identification and description of elite athletes' flow experiences through their athletic performance (Jackson, 1995, 1996; Jackson & Roberts, 1992). The results of the previous studies showed that elite athletes experience flow during practice or competitions, and flow state considered as an important part of their sport experience. Moreover, athletes' perceptions of flow state antecedents and factors like facilitate, prevent or disrupt the flow experience derived from qualitative part of Jackson's (1992a, 1995) studies. Findings of the studies showed that important factors for flow experience were physical readiness, positive mental

attitudes, maintaining appropriate focus positive pre-competitive and competitive affects, and partner unity (Jackson, 1992a). Jackson (1995) also conducted in-depth interviews, as an extended investigation, with elite athletes from swimming, track and field, rowing, field hockey, triathlon, rugby, and cycling. The analyses of the athlete experiences of flow generally supported Csíkszentmihályi's (1990) flow model. However, athletes' descriptions revealed that there might be individual and sport specific differences in flow experience. The analyses also provided a detailed report about sport specific picture of flow experience in elite athletes.

Athletes experiencing the flow state demonstrate greater commitment to the activity, and greater perseverance in their sport, in turn flow experience decreases the po0ssibility of sport dropout (Jackson, 1996). In another investigation of Jackson and colleagues (1998) examined the psychological correlates of flow experience in athletes. Results of the study demonstrated that there were positive relationships among intrinsic motivation, perceived sports ability and trait-state flow, and there were negative relationships between competitive trait anxiety and state-trait flow. Furthermore, the relationship between flow and perceived ability supported the importance of perceived skill in the flow theory. Then, Russell (2001) conducted a study on college athletes as an extended study of previous qualitative studies. Similar dimensions of the flow state were found and study results also suggested that regardless of gender and sport type, the college athletes seemed to have similar flow experiences. In addition, according to the results of this study, it can be said that the flow experiences in athletic performance is not limited to elite athletes.

Additionally, there are substantial studies related to facilitating, preventing, and disrupting factors of the flow state. The main studies related to influencing factors of flow experiences of athletes provided for better understanding of the flow experience. Primarily, Jackson and colleagues (1998) conducted an empirical study to examine correlates of flow and assessed the flow state quantitatively. Participants of this investigation consisted of

athletes participating in the World Masters Games. Study results showed that perceived sport ability and keep away from anxiety-concentration disruption were trait flow predictors. For state flow, freedom from anxiety-worry, perceived sport ability and freedom from anxiety-concentration disruption were found as predictors. Athletes who have higher level anxiety or worry had difficulty in loss of self-consciousness, sense of control and focus. Anxiety and worry are considered as the antithesis of the flow state associated with preventors and disruptors of flow (Jackson et al., 1998).

Jackson (2000) asserted that positive mental attitude and confidence were very important factors for experiencing the flow state. Jackson's qualitative studies indicated that the flow experience can be facilitated by several psychological skills by means of controllable factors managing. Young (2000) conducted a similar study by means of using in-depth interviews with professional female tennis players. The study identified influencing factors of flow like concentration, physical and mental preparation, motivation, positive mood and arousal experience and control. Young and Pain (2005) also found that positive mood, situational/environmental conditions, physical and mental preparation, motivation, focus, arousal control, and positive feedback as facilitators of flow. Jackson and colleagues (2001) investigated the relationships among psychological skills, self-concept, performance, and flow to understand how these constructs might be related to flow experience. Results demonstrated that there were positive relationships between the aspects of self-concept and flow, and also the relationships between flow and psychological skills were found. Further, positive self-concept, avoidance of negative thinking, appropriate activation levels, good emotional control, and relaxation were found as facilitators of flow (Jackson, et al., 2001). Finally, Baker and colleagues (2011) studied on young soccer players to examine the relationships among environmental resources (social support from the coach, performance feedback, and autonomy) flow, and performance. The study showed that support from the coach and performance feedback considered as environmental resources facilitate flow through a soccer game.

Furthermore, female body objectification defined as a process in which women "to treat themselves as objects to be looked and evaluated" (Fredrickson & Roberts, 1997, p. 177). Women assume the observer's perspective during the self-objectification process. If a woman draw her attention and focuses to her appearance, this increased awareness of physical appearance might disrupt or interrupt her peak motivational experience (Frederickson & Roberts, 1997). Another obstacle for the flow experience through the self-objectification, if a woman evaluates herself from the observer's perspective, self-consciousness might increase (Fredrickson & Roberts, 1997). Another study conducted by Dorland (2006) to examine the theoretical relation of self-objectification and flow. The sample of the study consisted of female student athletes participating in 14 sports, from two universities. The aim of the study was to investigate the relationships between flow and self-objectification. However, only one correlation was found significant. Further, relationships between trait anxiety, both self-objectification and flow were found significant.

A systematic review study was conducted by Swann and colleagues (2012) to investigate existing studies related to flow experiences in elite sport. Based on the results of this review, five studies conducted on elite athletes reported that facilitators including positive thoughts and emotions, appropriate focus, optimal motivation, effective preparation (physical, mental and competitive) and readiness, optimal arousal, confidence, optimal environmental and situational conditions, positive internal or external feedback, starting well, positive team play and interaction. It is accepted that these situations can happen prior to or during the performance. On the contrary, studies explored the factors named preventing factors like inappropriate focus, non-optimal preparation and readiness, lacking motivation, non-optimal arousal, non-optimal environmental and situational conditions, negative thoughts and emotions, lack of confidence, negative team play and interaction, negative feedback, and poor performance,. Preventing factors may influence

the flow experience prior to or during the event, but before the flow experience occurence (Swann, Keegan, Piggott, & Crust, 2012).

Moreover, studies were conducted to find out the disruptors of flow experience. Inappropriate focus, negative thoughts and emotions, incomplete preparation and non-optimal readiness, non-optimal environmental and situational conditions, non-optimal motivation, non-optimal arousal, losing confidence, negative feedback, problems with team performance or interactions, and performance mistakes were defined as disrupting factors. However, as an important point, to be labelled as a disrupting factor, factor must occur while the athlete is in flow in other words, during the event itself (Swann et al., 2012).

Sugiyama and Inomata (2005) also conducted a qualitative study to investigate the psychological elements of flow state of top athletes. The psychological states leading to flow experience through the competition was investigated in this study. Results of the study showed that concentration on the task at hand, unambiguous feedback, and autotelic experience were highly rated by athletes as psychological elements of flow state. The psychological states leading to flow state including relaxed, self-confident, highly motivated, completely focused, lack of negative thoughts and feelings positive thoughts. Most of the athletes, suggest that self-confident, relaxed, and highly motivated are their primary elements for optimal experience.

As previously mentioned, many studies have focused on flow experiences of athletes in sport setting, hence, there are limited studies focusing on the flow experiences of physical activity and exercise participants. However, flow experience is very essential in physical activity and exercise settings to maintain adherence. Csíkszentmihályi (1975) suggested that the intrinsic enjoyment obtained from the activity much more rewarding than the extrinsic rewards. It can be said that flow experience creates a willingness to participate in

chosen activity for its own sake (Csíkszentmihályi, 1990). Therefore, it is hypothesized that the flow experience creates a foundation for long-term adherence. This foundation is grounded in rewards directly derived from the practice of the target behavior. The strength of intrinsic motivation is proportional to the degree to which the target activity promotes a flow experience (Csíkszentmihályi, 1990; Petosa & Holtz, 2013). According to Csíkszentmihályi and colleagues (2005) flow is a powerful motivating force, and is considered as a desired outcome since flow is considered as an enjoyable state in an exercise setting. It was stated that in this study, if an individual is totally involved in an activity, she or he tends to feel intrinsic enjoyment and find the activity intrinsically rewarding. An enjoyable experience of physical activity, producing intrinsic rewards known as autotelic experience, thus flow experience can be a substantial foundation for adherence. Petosa and Holtz (2013) study presented the evidence that flow theory may be useful in the promotion of physical activity adherence in young adults. Researchers (Tipler, Marsh, Martin, Richards, & Williams, 2004) revealed that flow experience is associated to disposition toward to involve in physical activity motivation, to plan physical activity behaviors and to persist in physical activity.

Flow can be considered as a particular characteristic to create very positive consciousness, enjoyable, and intrinsically rewarding experiences (Jackson, 1996). It can be concluded that flow experience has effects on the future motivation since activities that have been intrinsically rewarded, in this way activities are more likely to be performed again (Schüller & Bruner, 2009). Findings from a research (Karageorghis, Vlachopoulos, & Terry, 2000) indicate that flow experience is positively correlated to the post-exercise feelings like revitalization, tranquility and positive engagement. Previous studies suggested that positive during exercise and post-exercise feelings might promote adherence to physical activity by means of optimal experience (Karageorghis & Terry, 1997; Kimiecik & Harris, 1996; Rejeski, 1992; Sallis & Hovell, 1990). In this point of view, the link between

intrinsic motivation and exercise adherence is able to explain the importance of experiencing flow in exercise settings.

Based on the previous studies focused on the influencing factors of flow experience, self-oriented and socially-prescribed perfectionism may explain direct and indirect relationships with exercise participants' dispositional flow. Moreover, because of the body related perceptions (perceived appearance, perceived body fat, and social appearance anxiety) are likely to have relationships with dispositional flow, the relationships between perfectionism (self-oriented and socially prescribed) and body related perceptions may explain why these perfectionism dimensions have direct and indirect effects on exercise participants' dispositional flow. The aim of the current study was to examine the relationships among the regular exercise participants' perfectionism, body related perceptions, and dispositional flow. Firstly, dispositional flow and the evidence to support the relationship between the perfectionism dimensions and exercise participants' dispositional flow are discussed. Then, an explanation of the body related perceptions that explain the relationships between dimensions of perfectionism and dispositional flow is provided.

2. 2 Perfectionism

The personality trait of perfectionism has been considered as a positive or a negative force in one's life (Cox, Enns, & Clara, 2002; Frost & Henderson, 1991; Hewitt & Flett, 1991). Although, researchers have not reach a consensus for a single definition of perfectionism, researchers generally agree that perfectionism means an individual's quest for flawless performance (Flett & Hewitt, 2002).

Perfectionists are concerned about making mistakes and doubt about their actions (Frost et al., 1990). They also put an effort to gain acceptance from significant others with need to maintain personal and public image (Blatt, 1995). Perfectionists often generalize failures, perceive as a characteristic of the entire self, and engage in "all or nothing thinking" like "total success or total failure" (Hewitt & Flett, 1991). Perfectionists are likely to experience heightened anxiety under evaluative conditions, thus they may have the potential for experiencing little enjoyment (Hewitt & Flett, 1991). Furthermore, perfectionists hold strict performance standards (ideal personal standards or ideal standard set by others) and doubt about their ability, thus they do not feel good enough (Stoeber & Otto, 2006).

Perfectionism is a multidimensional personality trait is generally caharacterized by critical evaluations on oneself and on others (Flett & Hewitt, 2002; Frost et al., 1990). The self-critical dimension of perfectionism was associated with negative reaction to imperfection, stress, depression, and anxiety (Dunkley, Zuroff, & Blankstein, 2003; Stoeber & Otto, 2006). Research has suggested that perfectionists' criteria (high performance standards) for success resulted in negative cognitions about personal ability to solve problems, emotional distress, depression and anxiety (Flett, Hewitt, Blankstein, Solnik, & Van Brunschot, 1996) and low satisfaction is often experienced (Hewitt & Flett, 1991).

Perfectionism theorists suggested that highly perfectionistic individuals persistently underrate their performance. According to Missildine (as cited in Stoeber & Otto, 2006) perfectionists think like that "I am not good enough, I must do better". David Burns (as cited in Antony & Swinson, 2009, p. 10) pointed out that perfectionist people "whose standards are high beyond reach or reason" and "who measure their own worth entirely in terms of productivity".

2. 2. 1 Dimensions of Perfectionism

Early research on perfectionism regarded perfectionism as a unidimensional characteristic (Burns, 1980; Garner, Olmstead, & Polivy, 1983), on the other hand, in the 1990s; a different point of view broke out suggesting that perfectionism has multifaceted and multidimensional characteristic (Cox et al., 2002; Frost et al., 1990; Hamachek, 1978; Hewitt & Flett, 1991).

From a different point of view, multidimensional perfectionism is composed of two dimensions such as perfectionistic strivings and concerns (see Figure 2.4) (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Stoeber & Otto, 2006). The perfectionistic strivings related to strivings for perfection and exceedingly high standards for performance. On the contrary, the perfectionistic concerns related to concern over making mistakes, negative reactions to imperfection, fear of negative evaluation by others, and feelings of discrepancy between one's expectations and performance (Stoeber, 2011).

Stoeber and Otto (2006) reviewed empirical studies of perfectionism conceptualized positive/healthy and negative/unhealthy perfectionism. They noted that healthy perfectionists remain relatively unconcerned about what others feel about their personal performance efforts. Perfectionism does not effect sport performance always negatively as a maladaptive characteristic. Conversely, when learning a new training task, perfectionism may lead to performance enhancement. However, unhealthy perfectionists consistently set excessively high standards of achievement were overly concerned about making mistakes, and doubted their personal competence in executing the task in a flawless manner. Additionally, Frost and Henderson (1991) found that athletes high in personal standards perfectionism reported concentration difficulty while performing, and athletes experienced worries about the audience reactions.

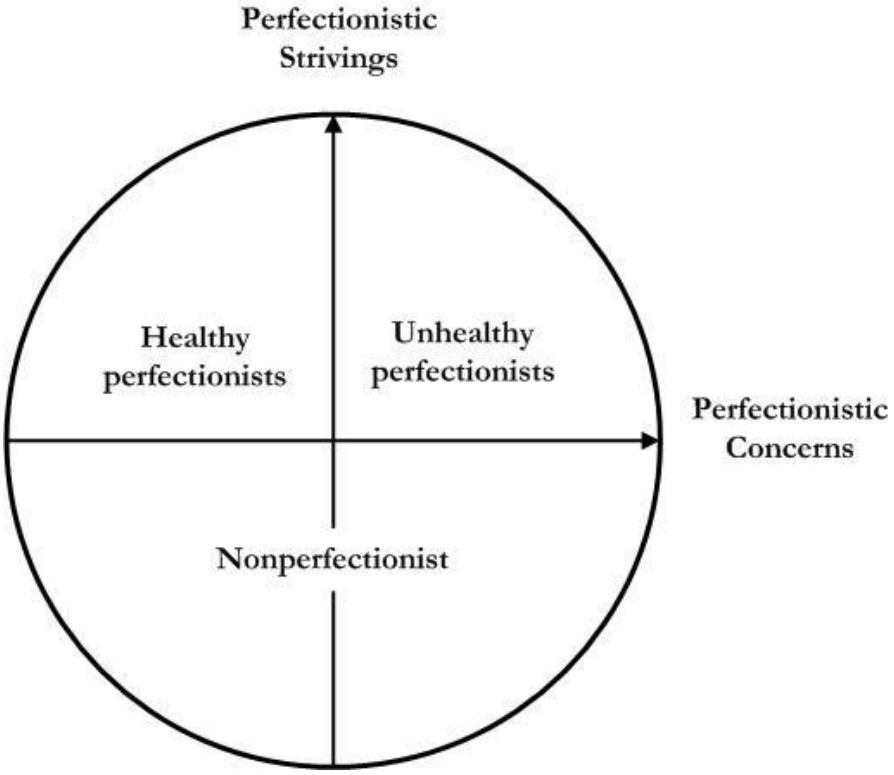

Figure 2.4 Three groups of perfectionists (adapted from Stoeber & Otto, 2006, p. 296).

The most common and widely studied multidimensional perfectionism is Hewitt and Flett's (1991) multidimensional perfectionism model. Hewitt and Flett (1991) conceptualized three distinct forms to understand perfectionism concept. Firstly, self-oriented perfectionism is is characterized by exceedingly high personal standards and harsh self-criticism. Secondly, other oriented perfectionism, refers to high expectations and harsh criticism are directed to others. Lastly, socially-prescribed perfectionism comprising beliefs that socially-prescribed perfectionists pursue standards that they perceive significant others would expect them to achieve (Hewitt & Flett, 1991). Self-oriented, other oriented and socially-prescribed perfectionism are identified below. However, other oriented perfectionist was not assessed in this study, because other oriented perfectionists impose their high standards and criticize others. Therefore, there is no reason to expect

other oriented perfectionism to be associated with the flow state known subjective experience of person.

Self-oriented perfectionism: is an internally motivated form of perfectionism comprises of beliefs that striving for perfection and is characterized by setting excessively high standards for oneself. Further, self-oriented perfectionists tend to pursue unrealistically high and rigid standards for themselves, and to undertake harsh self-criticism in an attempt to attain perfection and to avoid failure (Hewitt & Flett, 1991).

Studies show that self-oriented perfectionism has been characterized as adaptive and maladaptive. Self-oriented perfectionists have higher level self-esteem (Flett, Hewitt, Blankstein, & O'Brien, 1991), higher levels of emotional sensitivity and social expressiveness (Flett, Hewitt, & DeRosa, 1996), adaptive cognitive learning strategies (Mills & Blankstein, 2000), and they are quite conscientious and ambitious, and also they tend to have high self-efficacy (Bandura, 1989; Mills & Blankstein, 2000; Seo, 2008). On the contrary, maladaptive responses of self-oreiented perfectionists including low self-esteem, a sense of shame, and feelings of guilt (Hewitt & Flett, 1991; Pacht, 1984) self-critical or pessimistic about self (Bandura, 1986; Kanfer & Hagerman, 1981). Furthermore, Appleton et al., (2009) suggested that athletes who have low self-oriented perfectionism with high ego orientation reported reduced accomplishment perception, but athletes with high self-oriented perfectionism and high ego orientation reported fewer reduced accomplishment perceptions.

Other oriented perfectionism: The second dimension, other-oriented perfectionism is the tendency to impose unrealistically high standards on significant others. Therefore, they stringently evaluate others performances, and demand perfection from others (Hewitt & Flett, 1991, Flett & Hewitt, 2002). Other-oriented perfectionism has an interpersonal focus associated with other-focused conditional acceptance and approval of significant

others. Thus, other-oriented perfectionism can undermine interpersonal relationships because the other oriented perfectionists is rarely satisfied with the performance attainment or achievement strivings represented by significant others (Flett & Hewitt, 2002). Furthermore, other oriented perfectionists adopt a critical stance when the performance of others fails to meet their high expectations (Hewitt & Flett, 1991).

Socially-prescribed perfectionism: Conversely, socially-prescribed perfectionism reflects the perceived need to attain standards and expectations prescribed by significant others influencing one's ability to be perfect and gain approval (Hewitt & Flett, 1991; Hewitt, Flett, & Ediger, 1996). Approval is perceived as external and uncontrollable situation that results in negative affective responses like anxiety, depression, and self-blame (Flett, Hewitt, Blankenstein, & Pickering, 1998; Flett, Hewitt, Garshowitz, & Martin, 1997; Martin, Flett, Hewitt, Krames, & Szanto, 1996). In other words, socially prescribed perfectionists pay attention to the negative aspects of their performance, and ordinary events are interpreted as stressors of (Hewitt & Flett, 1993). Therefore, this dimension has been considered as the most debilitating perfectionism dimension.

2. 2. 2 Perfectionism in Sport and Exercise Setting

Perfectionism was found to be a motivational construct associated with both adaptive and maladaptive strivings that may have a major influence on individuals' cognitive appraisal process and adaptive and maladaptive sides of perfectionism may influence exercisers to experience either positive or negative affect in sport and exercise settings (Coen & Ogles, 1993; Frost et al., 1990; Haase et al., 2002; Hall et al., 1998). Understanding the role of perfectionism in sport is important because of both adaptive and maladaptive effects. For example; high levels of perfectionism among athletes have been associated with various affective, cognitive, and behavioral correlates including heightened precompetitive state

anxiety (Hall et al., 1998), competitive trait anxiety (Frost & Henderson, 1991), social physique anxiety (Hasse et al., 2002), competitive trait anger (Dunn et al., 2006; Gotwals, Dunn, & Wayment, 2003; Vallance, Dunn, & Causgrove Dunn, 2006), lowered self-esteem (Gotwals et al., 2003), fear of failure (Kaye, Conroy, & Fifer, 2008), achievement goals (Dunn, Causgrove Dunn, & Syrotuik, 2002; Stoeber & Crombie, 2010), exercise dependence (Coen & Ogles, 1993; Hagan & Hausenblas, 2003; Hall, Hill, Appleton, & Kozub, 2009; Hausenblas & Symons Downs, 2002; Shroff et al, 2006), compulsive axercise (Hall, Kerr, Kozub, & Finnie, 2007; Taranis & Meyer, 2010) eating disorders (Ferrand, Magnan, Rouveix, & Filaire, 2007; Hewitt et al., 1995; McGee, Hewitt, Sherry, Parkin, & Flett, 2005), negative attitudinal body image (Dunn, Craft, Causgrove Dunn, & Gotwals, 2011), performance (Stoll et al., 2008; Stoeber, Uphill, & Hotham, 2009), and burnout (Appleton et al., 2009; Gould, Udry, Tuffey, & Loehr, 1996; Hill, & Appleton 2011; Hill et al., 2008).

Longbottom et al., (2010) conducted a study to examine the relationships between perfectionism dimensions and cognitive and behavioral aspects of physical activity motivation. Result of the study indicated that adaptive perfectionists reported absence of negative consequences and they may also experience healthy adjustment in the exercise setting. Although, excessive exercisers and exercise dependence studies support for the powerful motivational role of perfectionism (Hall et al., 2009), relationships between exercise dependence, negative perfectionism is associated with avoidance of negative consequences, compulsive tendencies, strictness in high standards, and inability to experience pleasure (Enns & Cox, 2002). If athletes maintain doubts about their actions and have lower levels of confidence (Frost & Henderson, 1991), this may lead to the delaying of behaviors or implementation of ineffective management strategies. Therefore, focusing on mistakes lead to a lack of enjoyment, thus, this situation may cause potential withdrawal from the sport arena (Petherick, 2002).

2.3. Body Related Perceptions

Body related perceptions refer the ways of how individuals perceive their body (Cash & Fleming, 2002). Body-related perceptions have been associated with self-evaluative processes like cognitive and affective factors, coping, and stress appraisals related to social relationships and appearance management (Mack, Strong, Kowalski, & Crocker, 2006; McHugh et al., 2008; Sabiston, Sedgwick, Crocker, Kowalski, & Mack, 2007). Therefore, physical appearance has been specified as an important predictor variable in determining exercise behavior (Harter, 1990; Tiggeman & Williamson, 2000). The positive or negative perception of physical appearance predicts exercise behavior and motivation (Crawford & Eklund, 1994; Ingledew & Sullivan, 2001; Russell & Cox, 2003), affects rates of exercise participation, types of exercise and preferences related to exercise environments (Focht & Hausenblas, 2004; Lantz et al., 1997).

In the recent years, body related perceptions have become important for both men and women. In this line, the current study focused on body related perceptions like perceived body fat, perceived appearance, and social appearance anxiety to explain relationships between perfectionism and the dispositional flow. These constructs are briefly examined below.

2.3.1 Perceived Body Fat

Percent body fat is important for health-related fitness because of excessive amount body fat cause health problems including cardiovascular disease, diabetes and cancer. In previous studies have focused on total body weight rather than the proportion of body fat. Later, measuring percent body fat has gained importance to reveal health problems, as

only body weight parameter is insufficient to explain the real proportion of muscle and fat (Huddy, Nieman, & Johnson, 1993).

Besides of health related problems, body fat may affect individuals' body image. Research has revealed that higher percentage body fat results in more body related dissatisfaction (Roy, Hunter, & Blaudeau, 2006). While being physically fit and having extremely low body fat are two prominent point for current women's ideal body shape, the current ideal body shape for men involves muscukar appearance and low percent body fat (Bordo, 2003; Grogan, 2008; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). Body fat content is also an influencing variable in the relationship between appearance anxiety and exercise. For example, increased body fat content may result in heightened appearance anxiety which in turn influences individuals'exercise (Davis, Brewer, & Weinstein, 1993). It is suggested that appearance anxiety is positively related to certain body composition variables like weight and body fat content and social anxiety (Dion, Dion, & Keelan, 1990; Hart, Leary, & Rejeski, 1989). For example, being dissatisfied with physical appearance and feeling fat may also prevent individuals from engaging in organized sport activities like joining a gym or exercising (Grogan, 2008).

2.3.2. Perceived Appearance

Cash and Prunzinsky (2002) stated that the physical appearance has influence on individual's body image, beliefs of someone's body size, one's perception about it, thinking about, defining, sensing and behavior toward one's body. In other words, body image is described as the internal representation of our appearance (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Additionally, Cash and Szymanski (1995) defined attitudinal body image like satisfaction or dissatisfaction of individuals' physical appearance with some aspects.

Physical appearance has been used to determine exercise behavior as an important predictor variable (Harter, 1990; Tiggeman & Williamson, 2000). The positive or negative appearance perception predicts exercise behavior and motivation (Crawford & Eklund, 1994; Ingledew & Sullivan, 2001; Russell & Cox, 2003), affects rates of exercise participation, types of exercise and preferences related to exercise environments (Focht & Hausenblas, 2004; Lantz et al., 1997). Social physique anxiety is an experience in the presence of negative phycial evaluation and a component of negative body image. If a person having a negative body image and experiencing higher level anxiety she or he resist engaging in exercise (Lantz et al., 1997; Hart et al., 1989).

Improving muscularity, losing or controlling weight, being fit, developing athletic social image, and enhancing physical appearance are important motivation factors for many individuals to involve in exercise (Conroy, Motl, & Hall, 2000; Marquez & McAuley, 2001; Williams & Cash, 2001). Many individuals also exercise reason of possessiveness of the aesthetic-ideal physique. Recently, aesthetic ideal standards for women is a toned physique with low percent body fat, thin, and being physically fit; and for men it is a lean physique with low percent body fat and being more muscular (Leit, Pope, & Gray, 2000; Thompson et al., 1999).

2.3.3 Social Appearance Anxiety

Social physique anxiety (SPA) is a type of self-presentational concern that is described as the concern about others whether they are negatively evaluating one's physical appearance (Hart et al., 1989). SPA is an effective response reflecting concern for how one's body is judged by others in the self-presentation framework (Leary, 1992). Appearance anxiety is defined as the concern that people feel about their physical appearance and how others

evaluate them (Davis et al., 1993). In another definition, social physique anxiety is a subtype of social anxiety that refers to the affective consequences associated with indiviudals' doubts their ability to create the desired impression on others in certain social settings (Hart et al., Rejeski, 1989; Leary, 1995). Especially, social anxiety appears to be important in sport and exercise settings. For example, social anxiety might reduce exercise enjoyment, and highest level social anxiety might prevent people from exercising (Leary, 1992). Furthermore, social physique anxiety can deter some individuals from being active due to concerns about being evaluated by others negatively (Hart et al., 1989; Spink, 1992). People who have a higher level SPA report that they experience more stress through fitness evaluations and more negative feelings about their bodies than others do. Therefore, these individuals are more likely to avoid fitness settings since they are concerning about how others will evaluate their physical appearance (Weinberg & Gould, 2003). Therefore, concerns about physical appearance or social physique anxiety (Hart et al., 1989; Leary, 1992; McAuley, Bane, Rudolph, & Lox, 1995; Spink, 1992) has been found to be a major contributing factor associated with maladaptive exercise experiences and poor compliance rates. If individuals are concerned about their appearance or level of fitness, it is likely that they will suffer from social physique anxiety and a lack of enjoyment.

Although, during early stages of exercise adoption, physical appearance and weight control were more common; while later stages of exercise were more predominately motivated by intrinsic factors such as enjoyment and fun (Teixeira et al., 2006). Previous study (Belling, 1992) demonstrated that social physique anxiety was negatively associated with exercise behavior of community residents and high social physique anxiety was also related to low level exercise enjoyment. Belling (1992) also suggested that males might avoid physical activity when they feel more physique anxious. Females having higher social physique anxiety, in contrast, might be motivated to become or remain physically active for

improving physical appearance. Thus, it can be said that this situation may reduce their physique anxiety.

2.4 Perfectionism, Body Related Perceptions and Flow

In the recent years, body image concerns have been gradually increasing in men and women. Because of the thought of social benefits associated with ideal body, people focus on more and more attaining the perfect physique. Unfortunately, this perfect physique thought may cause serious problems if the body ideals are unrealistic. Especially, body dissatisfaction is an important concept to understand and examine because it has been found to predict negative psychological consequence (Hewitt et al., 1995). Body dissatisfaction is considered as a result of social comparison and not meeting an ideal standard of beauty (Henderson-King & Henderson-King, 1997; Snyder, 1997; Strauman, Vookles, Bernestein, Chaiken, & Higgins, 1991). Body dissatisfaction was relevant to negative feelings about the shape, appearance, and weight of one's body. As perfectionists adhere to their ideals/standards, high level perfectionists may have high levels of body dissatisfaction. Studies (Hewitt et al., 1995; Killen et al., 1994) have supported that perfectionism leads to higher levels of body dissatisfaction. Stoeber and Stoeber (2009) conducted a study related with extensiveness of perfectionistic tendencies of internet users and university students in 22 different life domains including physical appearance. According to the results, 27 % of the internet users and 40 % of the students were represented as perfectionist about their physical appearance.

Some individuals concern about making favorable impressions within the other individual's mind and attempt to control other people's perception and evaluation of them (Leary et al., 1990). This process, known as self-presentation, contributes to problems related with health such as eating disorders and a quest for bodily perfection. It

is important for certain perfectionist individuals who highly concerned with representation of an image of perfection to the others. As there is a relationship between perfectionism and self-presentational concerns in sports and exercise, Hewitt and colleagues (2003) develop specifically perfectionistic self-presentation concept. Perfectionistic self-presentation contains creating a public image of perfectness, either emphasizing on success or minimizing one's mistakes (Flett & Hewitt, 2005). According to Hewitt and colleagues (2003) perfectionistic self-presentation have three different dimensions as perfectionistic self-promotion to improve a perfect image; non-display of imperfection related with behavioral demonstration of imperfection; and nondisclosure of imperfection concerning about verbal revelation of imperfection.

Flett and Hewitt (2005) suggested that athletes overly focusing on perfectionistic self-presentation are individuals extremely anxious and self-conscious focusing on their body image and public appearance. Haase et al. (2002) interpreted as if athletes set unrealistic high standards and attempt to avoid failure in the perception of important others, they may experience more anxiety and concern about their physique because of the possibility of self-presentational failure according to their perceived perfect standards. Heller (2013) investigated to examine the impact of perfectionistic self-presentation and social appearance anxiety related to eating disorder among female aesthetic sport athletes. Participants included female athletes who participated in six aesthetic sports and professional dancers. Results indicated that aesthetic sport athletes suffering from high level eating disorder were negatively correlated with scores on social appearance anxiety and perfectionistic self-presentation. However, there was a positive correlation between appearance anxiety and perfectionistic self-presentation.

Cumming and Duda (2012) investigates a study to examine the multidimensional perfectionism profiles consisting of dancers with non-perfectionism, pure personal standards perfectionism, dancers with a mixed profile of perfectionism, and dancers with

pure evaluative concerns perfectionism. The relationships among these profiles, psychological health, and indices of body-related concerns of vocational dance students. The study findings revealed that dancers with adaptive achievement tendencies showed greater psychological adjustment compared to other three subtypes. However, regardless of their personal standards, dancers with relatively greater concerns over mistakes and high doubts about actions reported greater psychological distress. Similar maladaptive patterns are seen in exercise settings. For instance, many people engage in excessive, compulsive exercise to meet their perfectionistic self-promotion requirement, and individual differences in perfectionistic self-presentation have an effect on excessive striving and exercise behavior (Flett & Hewitt, 2005).

Social physique anxious individuals who perceive others to set unrealistically high standards experience more concerns and anxiety about their physique due to the possibility of failure to meet those standards and its impact on self-worth. Specifically, perfectionist exercisers who have high public self-consciousness (i.e., social physique anxiety) appear to have an intense need for self presentation that is characterized by the socially-prescribed (Hewitt et al., 1995). Those individuals who feel the need to attain others perceived imposed standards may engage in protective strategies. For example, this might include avoidance of public places where the physique could be scrutinized. This would provide to escape from others negative appraisals of personal appearance, so perceptions of threat might be reduced (Rosen, Srebnik, Saltzberg, & Wendt, 1991) if perceiving to fall short of set standards. Therefore, the resultant behavior is to cope with perceptions of threat in a way that undermines health such as abstinence from exercise.

Additionally, study by Haase et al. (2002) revealed an association among social physique anxiety and negative perfectionism in female and male athletes. In addition, both negative perfectionism and social physique anxiety significantly explained the 41% of the variance in the prediction of females' disturbed eating attitudes. Results also suggest that

individuals who perceive that others have higher expectations of them may experience greater general appearance concerns which might lead to body dysmorphic disorder, social anxiety, or an eating disorder.

Petherick (2002) investigated the influence of individual differences in perfectionism on social physique anxiety and also explored the mediating influence of coping strategies on social physique anxiety, threat, and levels of enjoyment. The study consisted of 317 beginner exercise class participants. The first part of study results suggest that socially-prescribed perfectionism influences social physique anxiety more than self-oriented perfectionism, which in turn, social physique anxiety significantly and negatively influences self-efficacy. Moreover, both self-efficacy and capacity beliefs significantly and positively influenced exercise enjoyment. Leary (1992) suggested that self-presentational concerns might be related to increasing and decreasing exercise behavior. Moreover, exercise may trigger the some individuals' self-presentational concerns like desire for a lean and fit physique. On the contrary, self-presentational concerns may discourage from exercise participation, if individuals are concerned about being perceived as unfit, overweight, and uncoordinated. Further, previous study (Culos-Reed, Brawley, Martin, & Leary, 2002) revealed that individuals exercising two or less times in a week had greater self-presentation concerns than individuals exercising three or more times in a week.

Maladaptive and impeding motivation dimensions were significantly associated with maladaptive perfectionism that represented doubt about managing of physical activity avoidance and fear of failure. Unfortunately, individuals motivated to do exercises for self-presentation seem to do exercise less than individuals exercising for fitness and health related reasons (Culos-Reed et al., 2002; Frederick & Ryan, 1993). Because of this reason, explaining the process of changing one's physique and educating people about the health/fitness benefits of exercise is a difficult process and requiring effort long time may be an effective way to increase exercise behavior. Therefore, the health benefits of regular

exercise should have been emphasized to prevent individuals from being discouraged and dropping out of exercising.

Recently, Kaufman, Glass and Arnkoff (2009) assessed how mindful sport performance enhancement (MSPE) affected flow states, performance, and psychological characteristics such as anxiety, perfectionism, thought disruption, confidence of archers and golfers. According to study results, anxiety (-.72), perfectionism (-.75) and thought disruption (-.73) had a significant negative relationship with overall flow. Conversely, confidence (.72) and mindfulness (.79) had a significant positive relationship with overall flow

Based on the individual's level of awareness, perfectionism may be used like a positive or negative source of energy. If an individual have a feeling of insufficent to meet standards set by herself/himself or by the others obtain poorer performance than expected. On the other hand, it might lead to extraordinary creative achievement an ecstatic struggle to move beyond the previous limits of one's capabilities ("flow"). Perfectionists might be able to experience ecstatic heights and be totally in the flow state, when they free from others' judgements or time constraints, thus becoming the activity itself as a reward (Silverman, 1999). In the literature, there is an only study exploring the relationships between perfectionism and flow. Vea and Pensgaard (2004) investigated this study with young elite athletes and they found that there were negative relationships between flow dimensions and perfectionism.

2.5 Summary of the Literature Review

In this chapter, research studies related to the current study variables were reviewed. In previous studies, flow state considered as an important part of elite athletes sport experiences and studies primarly focused on flow influencing factors such as facilitating,

preventing, and disrupting factors. The reason behind the importance of the flow experience is due to positive consequences to athletes and their performance (e.g. commitment, persistence, decreased likelihood of dropout). Then, flow experience is also considered as a desired outcome and motivating force in exercise setting. Therefore, investigation of influencing factors of flow experience is also crucial for exercise setting. Although, there are limited studies in exercise setting, studies focuse on flow experience to maintain exercise adherence, be motivated to physical activity involvement.

In sport and exercise setting, perfectionism is also considered as a positive and negative source of energy. Studies investigated the role of perfectionism in athletes to understand both adaptive and maladaptive aspects. Many studies investigated affective, cognitive, and behavioral correlates of perfectionism among athletes. Further, excessive exercisers, exercise dependence, and compulsive tendencies studies supported both motivational role and negative aspect of perfectionism in exercise setting.

In the last years, with the increasing amount importance of physical appearance, studies revealed that body related perceptions may influence exercise motivation, exercise participation, and individuals' exercise preferences. Consequently, relavant studies to perfectionism, body related perceptions and dispositional flow demonstrated that investigation of the relationships among these variables seem to play an important role in the exercise setting.

CHAPTER III

METHOD

The present study could be stated as a correlational study designed to investigate the relationships among dispositional flow, perfectionism and body related perceptions. This chapter involves a description of the methodological procedures of the study. Firstly, the sample characteristics are presented, then, data collection instruments of the study are given together with their psychometric properties. Finally, procedures for data collection, and methods for data analyses are presented.

3.1 Study design and sampling

In the present study, the relationships among exercise participants' perfectionism, body related perceptions and dispositional flow were investigated. Therefore, this study can be stated as a correlational study. Since the present study is a quantitative study, data were collected from exercise participants by means of self-report questionnaires.

Regular exercise participants were identified as the target population of the present study. Since it is very difficult to reach the the target population, sample of the study was consisted by means of convenience sampling method. The sample of the study including six sport centers' exercise participants (n = 303) and exercisers participating in the present study by means of internet (n = 225).

3.2 Participants

The data for the present study were collected from exercise participants who were 216 female and 230 male. The mean age of the participants was 26.85 (*SD* = 6.60) for female and 24.40 (*SD* = 5.93) for male with an age range between 17 and 40. The participants enegage in different sport and exercise types, such as fitness (*n* = 110), badminton (*n* = 51), pilates (*n* = 38), Zumba (*n* = 28), swimming (*n* = 26), walking (*n* = 26), bodybuilding (*n* = 23), yoga (*n* = 25), football (*n* = 22), running (*n* = 18), and the rest of the participants (*n* = 79) were from Capoeira, dance, basketball, tennis, taekwondo, cycling, volleyball, rowing, and fencing. Participants have been exercising more than six months at different sport centers and university's sport centers (female, *M* = 42.98, *SD* = 46.92; male, *M* = 63.64, *SD* =51.32 months). Participants exercise on average four days (M_{female} = 3.34, *SD* = 1.58, M_{male} = 4.06, *SD* = 1.54).

3.3 Data Collection Instruments

Five instruments, which were all self-report measures, were used in this study. These instruments are: demographic information form, two sub dimensions of Physical Self-Description Questionnaire (PSDQ; Marsh, Richards, Johnson, Roche, & Tremayne, 1994), Social Appearance Anxiety Scale (SAAS; Hart et al., 2008), two subdimensions of Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991), and Dispositional Flow Scale (DFS-2; Jackson & Eklund, 2002).

3.3.1 Demographic Information Form

The demographic questionnaire included information about exercise participants' gender and age, Additionally, participants responded to a number of single item measures (e.g. regularly exercising, exercise or sport type, period of regular exercise, days and hours per week spent exercising, reasons of exercising).

3.2.2 Physical Self-Description Questionnaire

Physical Self-Description Questionnaire (PSDQ, Marsh et al., 1994) was designed for adolescents aged 12 or older. The questionnaire consists of seventy items, and measures nine specific subscales of physical self-concept. They are; as perceptions of strength, body fat, physical activity, endurance/fitness, sports competence, coordination, health, appearance, and flexibility. There are also two general scales, general physical self-concept and self-esteem. Each PSDQ item is a simple declarative statement, and participants' respondent using a 6- point rating scale (from 1 'false', to 6 'true'). Higher scores indicate higher physical self-concept. The perceived body fat (e.g., "I am too fat") and appearance (e.g., "I am good looking") subscales were used in this study. The reliability and validity of the PSDQ were tested by different studies (Marsh et al., 1994; Marsh & Redmayne, 1994; Marsh, Aşçı, & Marco, 2002a). Internal consistencies for the 11 subscales ranged from a low 0.83 to a high of 0.93 (Marsh et al., 2002a). All PSDQ items have loaded strongly (i.e., no loadings under 0.42) on their respective factors. Reliability and validity of the PSDQ for Turkish university students were determined in a cross-cultural study by Marsh, Marco and Aşçı (2002b).

CFA for 6-item perceived body fat subscale in the present study resulted in χ^2 value (112.351), *df* was 9 ($p < .05$), and the fit indices were; CFI = .908, NFI = .902, and RMSEA = .161 and this findings indicated that poor fit (MacCallum, Browne, &

Sugawara, 1996; Tabachnick & Fidell, 2007). Thus, modification indices of errors (error covariance) were checked, and determined the pairs with high values. The higher error pair was e1-e6, then this error pair was connected and analysis was run again, as they were in the same factor. Then, RMSEA value decreased to .080 and this value indicated adequate model fit (Jaccard & Wan, 1996). Besides, CFI (.98) and NFI (.98) values indicated good fitting model as being higher than .95 (Hu & Bentler, 1999). However, χ^2 statistics resulted in a significant value of 30.622 ($p < .05$). The final model with standardized estimates ranged from .57 to.79 (Appendix C, Figure C 1.1). Furthermore, in the present study, the alpha coefficient for perceived body fat .86.

CFA for 6-item perceived appearance subscale in the present study resulted in χ^2 value (42.621), *df* was 9 ($p < .05$), and the fit indices were; CFI = .937, NFI = .922, and RMSEA = .092 and this findings indicated that poor fit (MacCallum, Browne, & Sugawara, 1996; Tabachnick & Fidell, 2007). Thus, modification indices of errors (error covariance) were checked, and determined the pairs with high values. The higher error pair was e1-e3, then this error pair was connected and analysis was run again, as they were in the same factor. Then, RMSEA value decreased to .029 and this value indicated good model fit (Hu & Bentler, 1999). Besides, CFI (.99) and NFI (.98) values indicated good fitting model as being higher than .95 (Hu & Bentler, 1999). However, χ^2 statistics resulted in a significant value of 10.993 ($p < .05$). The final model with standardized estimates ranged from .38 to.81 (Appendix C, Figure C 1.2). The alpha coefficient for for perceived appearance .76 in the present study.

3.2.3 Social Appearance Anxiety

The social appearance anxiety scale (SAAS; Hart et al., 2008) was developed to assess anxiety about being negatively evaluated by others because of one's overall appearance,

including body shape. Example items from the SAAS are "I am concerned people would not like me because of the way I look" and "I am frequently afraid I would not meet others' standards of how I should look". Scale composed of 16 items with 5-point rating scale type responses, ranging from 1 (not at all) to 5 (extremely). Higher scores indicate greater social appearance anxiety. Research on the psychometric properties of the SAAS demonstrated good internal consistency in all three samples .94, .95, and .94, good test-retest reliability r = .84, and divergent validity in samples of nonclinical college men and women (Hart et al., 2008; Levinson & Rodebaugh, 2011). Reliability and validity of SAAS for Turkish university students were determined in by Doğan (2010). The alpha coefficient was .93, and adequate test-retest reliability a two-week period r = .85. Confirmatory factor analysis results revealed that the fit indices for SPAAS (χ^2 = 143.79; N = 254, p = 0.01; NFI = 0.98, CFI = 0.99, GFI = 0.93, AGFI = 0.90; RMSEA = 0.051).

For the current study, CFA results of SAAS showed that χ^2 value was (532.091), *df* was 104 (p < .05), and the fit indices were; CFI = .855, NFI = .830, and RMSEA = .103 and this findings indicated poor fit (MacCallum et al., 1996). Therefore, modification indices of errors (error covariance) were checked, and determined the pairs with high values. The higher error pairs were e2-e3, e4-e5, e8-e9, and e9-e10 then these error pairs were connected and analysis was run again. Then, RMSEA value decreased to .077 and this value indicated adequate model fit (Jaccard & Wan, 1996). In addition, CFI (.92) and NFI (.90) values indicated good fitting model as being higher than .90 (Maruyama, 1998). However, χ^2 statistics resulted in a significant value of 361.089 (p < .05). The final model with standardized estimates ranged from .33 to.83 (Appendix C, Figure C 1.3). The alpha coefficient was found .91 for the current study.

3.2.4 Perfectionism

Multidimensional Perfectionism Scale (MPS; Hewitt & Flett, 1991) is a 45-item scale that measures the levels of three distinct dimensions of perfectionism: self-oriented perfectionism (e.g., "One of my goals is to be perfect in everything I do"); other-oriented perfectionism (e.g., "If I ask someone to do something, I expect it to be done flawlessly"); and socially-prescribed perfectionism (e.g., "The better I do, the better I am expected to do"). The three subscales are composed of 15 items each. Items on the MPS are scored according to 7 point rating scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores on the MPS reflect higher levels of trait perfectionism. Extensive research has demonstrated that the MPS is a multidimensional measure with high reliability and validity in both student and clinical samples (Enns & Cox, 2002; Hewitt & Flett, 2004). More specifically, the MPS subscales have good convergent and discriminant validity (Hewitt & Flett, 2004). The reliability of the MPS has been investigated among students, with alpha coefficients of .86 for self-oriented perfectionism, .82 for other oriented perfectionism, and .87 for socially-prescribed perfectionism. Similar results were found among clinical participants (Hewitt & Flett, 2004). The evidence of reliability and validity of MPS for Turkish university students were determined in by Oral (1999). According to this study the total alpha coefficient was .91 for MPS. The alpha coefficients were .91 for self-oriented perfectionism, .73 for other-oriented perfectionism and .80 for socially-prescribed perfectionism. Oral (1999) also found three subscales for MPS, on the contrary the original scale, subscales were composed of 19 items for self-oriented perfectionism, 14 items for socially-prescribed perfectionism, and 10 item for other-oriented perfectionism. In this study, self-oriented and socially-prescribed perfectionism dimensions were used for data collection. For the present study sample, the

CFA results of 19-item self-oriented perfectionism dimension showed that χ^2 value was (571.729), *df* was 152 ($p < .05$), and the fit indices were; CFI = .857, NFI = .816, and

RMSEA = .079 indicated poor fit (MacCallum et al., 1996). Therefore, modification indices of errors (error covariance) were checked, and determined the pairs with high values. The higher error pairs were e1-e4, e2-e8, e4-e17, e10-e18, and e17-e18 then these error pairs were connected and analysis was run again. Then, RMSEA value decreased to .066 and this value indicated adequate model fit (Steiger, 2007). In addition, CFI (.91) value indicated good fit as being higher than .90 (Maruyama, 1998), on the contrary NFI (.88) still lower than .90. Moreover, χ^2 statistics resulted in a significant value of 433.212 ($p < .05$). The final model with standardized estimates ranged from -.21 to.82 (Appendix C, Figure C 1.4). Cronbach alpha was found .87 for self-oriented perfectionism in this study.

For the current study, CFA results of 14-item socially-prescribed perfectionism dimension showed that χ^2 value was (380.938), *df* was 77 ($p < .05$), and the fit indices were; CFI = .732, NFI = .689, and RMSEA = .094 indicated poor fit (MacCallum et al., 1996). Therefore, modification indices of errors (error covariance) were checked, and determined the pairs with high values. The higher error pairs were e2-e9, e2-e14, e2-e25, e2-e35, e14-e25, and e27-e29, then these error pairs were connected and analysis was run again (Appendix C, Figure C 1.5). Then, RMSEA value decreased to .066 and this value indicated adequate model fit (Steiger, 2007). On the other hand, CFI (.88) and NFI (.83) lower than the .90. Moreover, χ^2 statistics resulted in a significant value of 206.950 ($p < .05$). The final model with standardized estimates ranged from -.02 to.71. Cronbach alpha was found .74 for socially-prescribed perfectionism dimension in this.

3.2.5 Flow

Dispositional Flow Scale (DFS-2) was a 36-item questionnaire used for assessing the flow experiences associated with a particular physical activity, in general (Jackson, & Eklund,

2002). Each of the dimensions contains four items: challenge-skill balance (e.g., "I am challenged, but I believe my skills will allow me to meet the challenge"), merging of action and awareness (e.g., "I make the correct movements without thinking about trying to do so"), clear goals (e.g., "I know clearly what I want to do"), unambiguous feedback (e.g., "It is really clear to me how my performance is going"), concentration on the task at hand (e.g., "My attention is focused entirely on what I am doing"), sense of control (e.g., "I have a sense of control over what I am doing"), loss of self-consciousness (e.g., I am not concerned with what others may be thinking of me"), transformation of time (e.g., "Time seems to alter either slows down or speeds up"), and autotelic experience (e.g., "I really enjoy the experience"). Items on the DFS-2 are scored according to a 5-point rating scale with response ranging from 1 ''Never'' to 5 ''Always''. By summing up all the scores, a global flow score can also be derived to represent the individual's overall propensity to experience flow. Jackson and Eklund (2002) conducted confirmatory factor analysis and the nine factor model was supported, as well as a higher order model with a global flow factor. Reliability of the scale was shown to be acceptable with alphas ranging from .78 to .86 for the DFS-2. The higher the score, the more likely the individual will experience flow. Reliability and validity of the DFS for Turkish university students were supported by Aşçı and colleagues (2007). Contrary to the original scale, scale composed of 34 items as 2 items were removed from the scale. According to this study, the nine subscale's alpha coefficients were .73 for challenge-skill balance, .66 for action-awareness merging, .81 for clear goals, .81 for unambiguous feedback, .80 for concentration on the task, .80 for sense of control, .87 for loss of self-consciousness, .75 for transformation of time, and .71 for autotelic experience, .93 for total flow dispositional.

For the current study, CFA results of DFS-2 showed that χ^2 value was (1172.039), *df* was 491 ($p < .05$), and the fit indices were; CFI = .900, NFI = .841, and RMSEA = .056. The modification indices of errors (error covariance) were also checked, and determined the pairs with high values (Appendix C, Figure C 1.6). The higher error pairs were e3-e4, e5-

e6, and e23-e24. However, these pairs belong to different sub-dimensions of the scale. Therefore, these error pairs were not connected. The standardized estimates ranged from .43 to.85. In this study, total score of dispositional flow was determined as a dependent variable and cronbach alpha was found .92 for total dispositional flow.

3.4 Data Collection Procedure

Before administering the instruments, required permissions were obtained from the Human Research, Ethical Committee at the Middle East Technical University (Appendix A). The investigator of the study contacted six sport centers to reach individuals participating in the various exercise settings. The instruments were also sent to different types of exercise participants' email addresses using a web-based data collection tool called Surveey (www.surveey.com). Before applying the instruments, participants were given informed consents to inform them about the purpose of the study and to request their participation. The anonymity of the participants was maintained to encourage the participants for their honest answers to the questions. The investigator administered all instruments to participants who were willing to complete by means of paper survey before beginning or ending of their exercise sessions. The instruments took approximately 15-20 minutes to complete.

3.5 Data Analyses

Firstly, the data obtained from the study were analyzed by preliminary analyses. All variables were analyzed by using IBM SPSS Statistics 22.0 for preliminary analyses. Then, for the main purpose, to examine the role of perfectionism and body related perceptions in predicting dispositional flow, relationships among predictors and outcome variables were investigated by using AMOS 18 statistical software package. This section introduces

a brief explanation of the preliminary analyses and path analysis that was employed for the present study.

3.5.1 Preliminary Analyses

Preliminary analyses consisted of assumption checks for statistical analyses, descriptive statistics and testing gender differences. The assumptions include missing data analysis, normality, and bivariate correlations. The means and standard deviations of the variables were computed by gender and for the total sample. In addition, independent t-tests were conducted to examine gender differences in the dependent variable in order to decide model testing.

3.5.2 Path Analysis

Path Analysis was conducted in order to examine the patterns of relationships among variables by means of using AMOS 18 statistical software package. As consistent with the proposed model of the study, the dispositional flow, body related perceptions (perceived appearance, perceived body fat, and social appearance anxiety) were intervening (endogeneous) variables, and self-oriented and socially-prescribed perfectionism were exogenous variables. Several direct and indirect paths between dispositional flow and the proposed perfectionism and body related variables were tested. A brief explanation of the path analysis constructs that was employed in the present study was given below.

The study variables are treated as if they can be observed, therefore total scores were calculated for each variable. The proposed model examines the relationships among the regular exercise participants' perfectionism (self-oriented, socially-prescribed

perfectionism), body related perceptions (perceived body fat, perceived appearance, social appearance anxiety) and dispositional flow. Path model diagram was used to represent the proposed model in path analysis and the relations (direct and indirect effects) between variables are represented by arrows.

Variables are discussed under two categories: exogenous variables (self-oriented, socially-prescribed perfectionism) and endogenous variables (perceived body fat, perceived appearance, social appearance anxiety, and dispositional flow). Exogenous variables are an independent variable whose role are to explain other variables or outcomes in the model (Lleras, 2005). On the other hand, endogenous variables are dependent variable that they are directly and indirectly influenced by exogenous variables in the model (Byrne, 2010). If the exogenous variable has an arrow directed towards the endogenous variable that indicates the direct effect of the independent variable on the dependent variable. However, when an exogenous variable has an effect on the dependent variable, through the other exogenous variable that indicates the indirect effect of the independent variable on the dependent variable (Kline, 2005).

To test the paths in the proposed model, a covariance matrix was used to obtain parameter estimations using the maximum likelihood method (Jöreskog & Sörbom, 1996). Multiple goodness-of-fit indices were relied on, since no single indicator has been demonstrated as superior in the path analysis. The indicators, including chi-square (χ^2), the ration of chi-square to its degrees of freedom (χ^2 / df), comparative fit index (CFI), normed fit index (NFI), goodness of fit index (GFI), and root mean square error of approximation (RMSEA). The explanations of these terms are given below, and the criterion of fit indices is presented in Table 3.1.

Table 3.1

Criterion of fit indices

Fit index	*Acceptable Threshold Levels*
χ^2	Chi-square p> 0.05
χ^2 / *df*	χ^2/df < 3 (Kline, 2005)
	χ^2/df < 2 (Tabachnick & Fidell, 2007)
CFI	0 = poor fit, close to 1 = very good fit
	CFI >.95: good fit (Hu & Bentler, 1999)
NFI	≥ 0.90 acceptable (Schumacker & Lomax, 1996; Tabachnick & Fidell, 2007)
	≥ 0.95 goof fit (Hu & Bentler, 1999)
GFI	0.90 < GFI, acceptable (Maruyama, 1998; Schumacker & Lomax, 1996)
RMSEA	≤ 0.05, close fit; 0.05 < RMSEA < 0.08, mediocre fit;
	> 0.1, poor fit (Browne & Cudeck, 1993)
	< 0.08, adequate fit (Jaccard & Wan, 1996)

Chi Square (χ^2): The Chi-Square value evaluates overall model fit and assesses the magnitude of the discrepancy between the sample and fitted covariance matrices (Hu, Bentler, & Kano, 1992). A non-significant χ^2 implies that there is no significant discrepancy between the covariance matrix implied by the model and the population covariance matrix. Hence, a non-significant χ^2 indicates that the model fits the data in that model can reproduce the population covariance matrix (Kelloway, 1998). A small chi-square value corresponds to good fit whereas a large χ^2 to a bad fit. A value of zero indicates perfect fit. As χ^2 is sensitive to sample size, with large samples, trivial discrepancies can lead to rejection of a highly satisfactory model; with small samples, it can be non-significant even in the face of misfits (Loehlin, 2004).

Ratio of Chi-Square to Degrees of Freedom (χ^2 / *df*): Given that χ^2 alone is not an adequate indicator, usually it is interpreted with its degrees of freedom which refers to the difference

between known values and unknown value estimates. The ratio of χ^2 / *df* determines the identification of a model. As a general rule of thumb, a ratio less than 5 is considered to be acceptable fit, as the ratio is closer to 1, the model is accepted to be fitting model. Although there is no consensus about acceptable fit of the χ^2 / *df* larger than 2 indicates an inadequte fit, lower than 2 are widely considered to the model can accepted to be a fitting model (Byrne, 1991).

Comparative fit index (CFI): The Comparative Fit Index is one of the most popularly reported fit indices, since one of the measures least influenced by sample size (Fan, Thompson, & Wang, 1999). CFI is equal to the discrepancy function adjusted for sample size. CFI ranges from 0 to 1 with a larger value indicating a better model fit.The acceptable model fit is indicated by a CFI value of 0.95 or greater (Hu & Bentler, 1999).

Bentler-Bonett Normed Fit Index (NFI): Normed Fit Index assesses the model by comparing the $\chi 2$ value of the model to the $\chi 2$ of the null model (Hooper, Coughlan, & Mullen, 2008). Fit index lies in the 0 to 1 range, with high values (ideally greater than .90) indicating a good-fitting model (Loehlin, 2004). This index has a drawback that it is sensitive to sample size, underestimating fit for sample less than 200 (Bentler, 1990). This problem was rectified by the Non-Normed Fit Index (NNFI, known as the Tucker Lewis Index, TLI) which prefers simpler models.

Goodness-of-Fit Index (GFI): Goodness of Fit statistic was created Jöreskog and Sorbom to calculate the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidel, 2007). The values of the GFI range from 0 (poor fit) to 1 (perfect fit), and the values exceeding .90 indicate a good fit to the data (Kelloway, 1998).

Root Mean Square Error of Approximation (RMSEA): Root Mean Square Error of Approximation statistic was developed by Steiger and Lind (Steiger, 1990). RMSEA measures the error of approximation which refers the difference between the fit of the model to sample covariance matrix and to the population covariance matrix (Kline, 2005). RMSEA values less than .08 are considered to be acceptable values (Kelloway, 1998). An RMSEA in the range of 0.05 to 0.10 was considered an indication of fair fit and values above 0.10 indicated poor fit (MacCallum et al., 1996).

3.6 Limitations of the study

The present study has limitations that should be considered while interpreting and generalizing the findings. Firstly, the use of a correlational nature of the study does not explain a causal inference among variables, and the causal direction of the examined relationships cannot be definitively determined.

The second limitation of the present study is that the data were collected by paper surveys and online survey. As conditions are different, it would be better to check whether there was a difference among study variables with regard to survey type. Another limitation is related to data collection instruments.

Secondly, as the exercise setting has a heterogeneous population, it is difficult to generalize study results to all exercisers participating various types of exercise settings. For example, certain types of sports (body-building, swimming, dance, yoga and Pilates), focusing on one's body, may affect individuals' body related perceptions. Depeds on the exercise type, exercise environment also affects exercisers awareness of their own physiques (i.e., mirrors, exercising with groups, and clothing). Therefore, the experiences and perceptions of exercise participants might be quite different in terms of exercise types. Furthermore, as

participants ages 17-40 years, this wide age range may effect exercise participants' body related perceptions.

The third limitation is the determination of the study participants as regular exercisers. To determine whether participants exercise regularly, participants were asked to write their regular exercise duration and exercise frequency in a week. According to their response, study participants exercising at least and more than 6 months are accepted as regular exercise participants. However, it would be better if participants' stages were determined by stages of the change for exercise questionnaire (Marcus, Selby, Niaura, & Rossi, 1992). For example, being a regular exercise participant correspond to maintenance stage. Maintenance stage means exercising regulary more than 6 months according to the stages of the change.

The last limitation is that the sample of the present study also include individuals participating in sport activities as a non-elite athlete. As they regularly exercising, individuals having sport experience were accepted as a regular exercise participants. However, participants' body related perceptions might be influenced by means of their sport experiences.

CHAPTER IV

RESULTS

In this chapter, the results of the present study are presented in two separate sections. The first section consists of the preliminary analyses, which specifically involves missing value analysis, outlier analysis, the test of normality, the descriptive statistics, gender differences in terms of study variables, and the inter correlations among the study variables. The second section presents the main analysis of the study, namely path analysis conducted to test the proposed model.

4.1 Preliminary Analyses

Before conducting the statistical analyses, preliminary analyses which specifically include missing values and outlier analysis, and normality analysis were conducted. Additionally, the assumptions of the path analysis were also checked. Firstly, all of the items were checked to identify the missing data percentages in the missing data analysis. Missing value analysis indicated that the percentage of missing data due to item non-response was extremely low and ranged from 0 percent to 1.4 percent. Therefore, as missing values are less than 5%, all missing values were replaced by the mean of the items (Kantardzic, 2003). Second for the preliminary analyses, outlier analyses over the data were conducted. A protocol described by Tabachnick and Fidell (2007) was udes to screen univariate and multivariate outliers. Standardized z-scores were inspected whether there were larger

scores than 3.29. There were 12 larger scores than this value. Furthermore, multivariate outliers were detected by using Mahalanobis distance. After checking Mahalanobis distance criterion according to Tabachnick and Fidell (2007), 34 outliers were removed from the original sample, leaving a final sample was 446 participants.

The remaining data were checked both univariate and multivariate normality because the present investigation relies on assumptions that variables have a normal distribution. Univariate normality was checked by the values of Skewness and Kurtosis. All variables self-oriented and socially-prescribed perfectionism, perceived appearance and body fat, social appearance anxiety, and dispositional flow have Skewness and Kurtosis values between -1 and 1. It can be considered as normally distributed. Results of multivariate normality test, Mardia's normalized multivariate Kurtosis = 47.33 (p =. 473). As can be seen in Table 4.1, each of the study variables manifested a normal distribution, since none of the values greatly deviated from 0.

Table 4.1

Indices of Normality for Study Variables

Variable	*Skewness*	*Kurtosis*
Self-oriented perfectionism	-.482	-.220
Socially-prescribed perfectionism	-.244	-.309
Perceived body fat	-.728	-.335
Perceived appearance	-.302	-.401
Social appearance anxiety	.727	-.110
Dispositional flow	.160	-.069

The path analyses rely on assumptions (in addition to those for multiple regression) including linearity, causal closure and unitary variable (Kelloway, 1998). For the linearity assumption, it is assumed that the relationship among predictors and outcome variable to be linear. The linearity assumption can be tested by means of scatter plots and residual plots to reveal linear or curvilinear relationships (Keith, 2006). If there is a systematic pattern or residuals cluster, the linearity assumption is supposed to violated (Stevens, 2009). Therefore, partial regression plots were checked to detect curvelinear and linear relationships. Findings showed that the linearity assumption was provided for the study variables. Another assumption was causal closure in that all direct influences of one variable on another must be included in the path diagram. The unitary variable assumption is also specifically assumed for conducting path analysis. Thus, variables should not be composed of components that behave in different ways with different variables.

4.2 Descriptive Statistics

After preliminary analysis, descriptive statistics were examined. As for the descriptive statistics, the means and standard deviations of the study variables by gender and for the total sample were computed. The results of the descriptive statistics are demonstrated in Table 4.2.

Table 4. 2

Means and Standard Deviations for the Study Variables

	Female		*Male*		*Total*	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*
Perfectionism						
Self-oriented	94.51	19.23	100.08	13.99	97.39	16.94
Socially prescribed	49.88	12.20	55.01	11.92	52.52	12.32
Body related perceptions						
Appearance	29.74	3.32	29.46	3.54	29.59	3.43
Body fat	28.95	5.71	29.53	5.95	29.25	5.83
Social appearance anxiety	29.99	8.36	28.12	9.36	27.58	8.90
Dispositional flow	135.75	16.75	140.07	15.56	137.98	16.28

4.3 Bivariate Correlations among Variables

Bivariate correlations were computed to depict the interrelationships among all of the study variables. Pearson product-moment correlation coefficients were computed to assess relationships among the exogenous variables of self-oriented and socially-prescribed perfectionism, endogenous variables of body related perceptions and dispositional flow. The correlation matrix showing the correlations among the study variables are presented in Table 4.3.

Table 4.3

Inter correlations among Study Variables

Variables	1	2	3	4	5	6
1. Self-oriented	-					
2. Socially prescribed	.46**	-				
3. Appearance	.28**	-.01	-			
4. Body fat	.12**	-.03	.40**	-		
5. Social appearance anxiety	-.09	.17**	-.42**	-.21**	-	
6. Dispositional flow	.35**	.16**	.34**	.12**	-.24**	-

Note n = 446

**$p < .01$.

The correlation matrix represented the relationships among the exogenous and endogenous variables. The relationships also assess the presence of multicollinearity. As seen correlation matrix the results showed that there were no partial coefficients exceeded .50. It can be concluded that the multicollinearity among the study variables was not severe (Tabachnick & Fidel, 2007).

While the self-oriented perfectionism, perceived appearance, and perceived body fat were positively correlated with the dispositional flow; social appearance anxiety was negatively correlated with the dispositional flow. However, dispositional flow was positively correlated with socially-prescribed perfectionism. Furthermore, the correlation matrix showed a significant positive relationship between perceived appearance and perceived body fat, and negative relationship with social appearance anxiety.

4.4 Gender Differences

In order to see whether scores of participants on each variable differed in terms of gender, a series of independent t-tests were employed as a primary analysis. The analyses revealed significant gender differences in self-oriented perfectionism (t = -3.51, p = .00, r^2 = -.33), socially-prescribed perfectionism (t = -4.49, p = .00, r^2 = -.43). Especially, there was a significant difference in dispositional flow (t = -.2.82, p = .01, r^2 = -.27) between females and males. Male participants experienced greater flow experience (M = 140.07, SE = 1.03) than female participants (M = 135.75, SE = 1.14). On the contrary, there was no significant difference in perceived appearance (t = .87, p = .38), body fat (t = -1.05, p = .29), and social appearance anxiety (t = -1.34, p = .18) scores between female and male participants'. Therefore, the model was determined according to female and men and reported for female and male separately.

4.5 Path Analyses for Model Testing

In order to test the proposed path model depicted in the Figure 1.1 (see p. 8), separate path analyses were employed for the full sample, for female, and for men exercise participants to address the purpose of the investigation. Proposed model for whole sample, female and male sample were tested by path analysis concurrently by assessing both direct and indirect effects among the study variables.

Path analysis was used to examine the direct effects of self-oriented and socially-prescribed perfectionism, social appearance anxiety, and perceived appearance on the dispositional flow; the direct effects of self-oriented and socially-prescribed perfectionism on perceived boy fat, appearance and social appearance anxiety. Furthermore, in the path analysis, the indirect effects of self-oriented perfectionism on dispositional flow. The first path analysis

was conducted for the whole sample with endogenous variables namely perceived body fat, perceived appearance, and social appearance anxiety, dispositional flow and exogenous variables namely self-oriented and socially-prescribed perfectionism. The analysis was employed by using AMOS 18 (Byrne, 2010) to calculate path coefficients, to estimate direct and indirect effects, and determine explained variance in endogenous variables. Then path analysis was conducted separately for female and male exercise participants. The proposed model was tested to see how the data fitted the proposed model that represented previously.

A set of criteria and standards for the model fit were calculated to see if the proposed model fit the data, including chi-square ($\chi 2$), the ration of chi-square to its degrees of freedom ($\chi 2$ / *df*), comparative fit index (CFI), normed fit index (NFI), goodness of fit index (GFI), and root mean square error of approximation (RMSEA) were used as criteria for model fit.

4.5.1 Results of the Fit Statistics

The fit indices for the proposed model are $\chi^2 = 65.80$, $\chi^2 / df = 32.90$, $p = .00$, which indicate a poor fit. The other important goodness of fit statistics that were as follows: CFI = .857; NFI = .857; GFI = .957; RMSEA = .263. These statistics also confirmed that the poor model fit, since the value of NFI should be greater than .90, and RMSEA should be less than .08.

As the proposed model indicated a poor fit, modification indices were checked and covariance between e2 and e3 was estimated by AMOS. Based on the greater modification index -9.381, it might decrease the chi-square statistic. Therefore, e2 and e3 were allowed to be correlated to decrease greater chi-square statistics. Then, path analysis was performed

over again, and results indicated that the data fit the proposed model. Firstly, results showed that the value of χ^2 was .731, $p > .05$, which indicated an adequate fit. The ratio χ2 and degrees of freedom value was $\chi^2 / df = .731$ ($df = 1$). Since the Chi-square statistic is sensitive to sample size Chi-square statistic usually rejects the model when large samples are used (Jöreskog & Sörbom, 1993). Therefore, other fit indices are important to the explanation of how well the proposed theory fits the data. The fit statistics obtained from the path analysis are summarized in Table 4.4.

Table 4.4

Summary of Goodness of Fit Statistics for the Proposed Model (N = 446)

χ^2	*df*	χ^2 / df	*p*	CFI	NFI	GFI	RMSEA
.731	1	.731	.393	1.000	.998	.999	.000

The other important goodness of fit statistics that were as follows: CFI = 1.00; NFI = .998; GFI = .999; RMSEA = .000. These statistics also confirmed the adequacy of the model fit, since in order to provide a good fit, ideally, the value of CFI greater than .95, the value of NFI should be greater than.90, values of GFI should be greater than .90, and RMSEA should be less than .08. Therefore, considering this goodness-of-fit statistics, it was concluded that the model provided acceptable fit the data, so the model cannot be rejected.

The results of the individual paths and their significance are also given for all sample data. The suggested path model is depicted in Figure 4.1 with significant paths in black arrows and non-significant paths in red and marked by stars. Furthermore, the path model with the beta weights (standard coefficients) for each significant path.

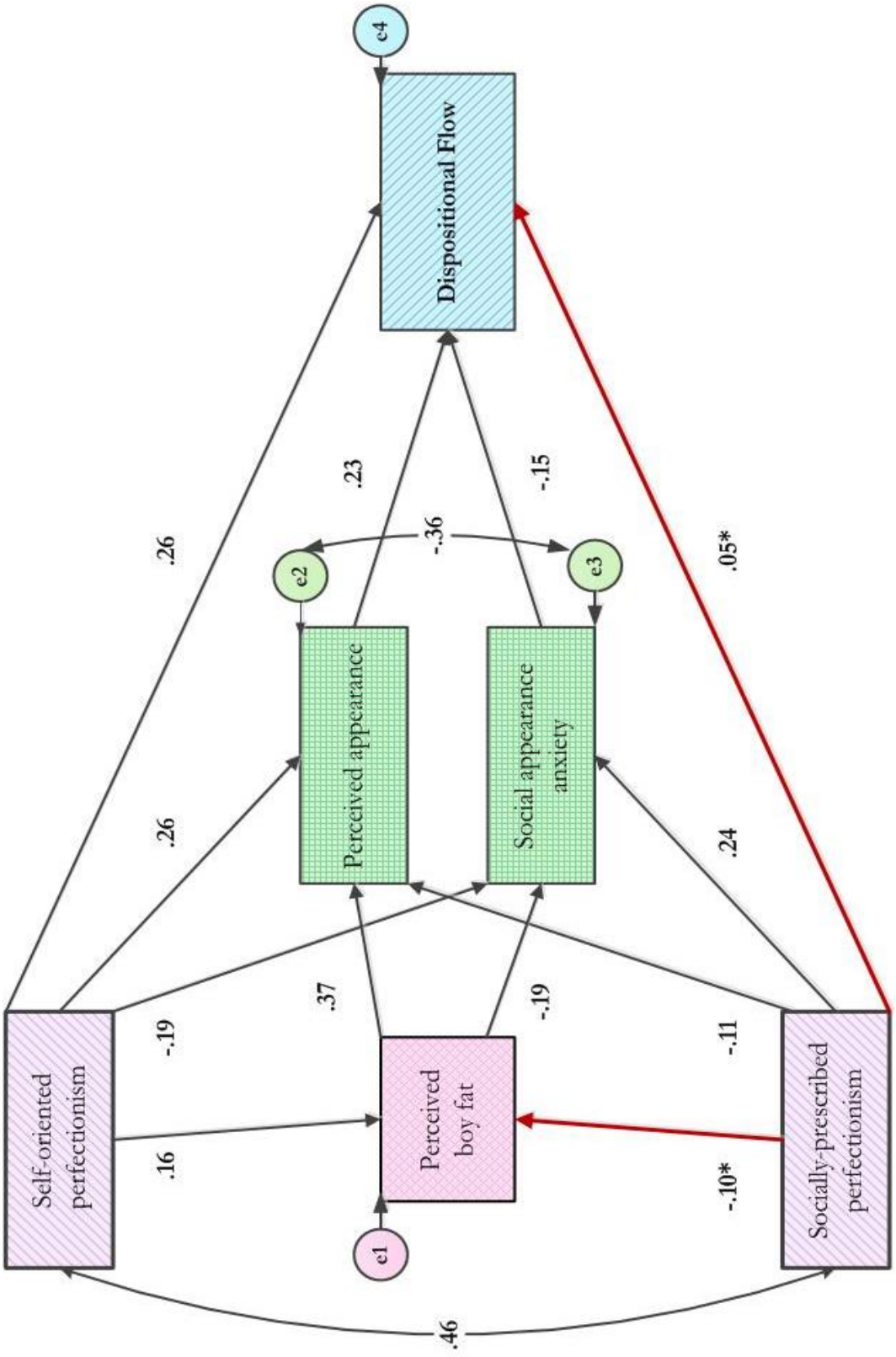

Figure 4. 1 Standardized path coefficients of the proposed model for whole sample

In the figure, the arrows are used to show the direction and the number above the arrows are beta weights which show the strength of the prediction. Path coefficients can be interpreted as standardized beta weights, each estimated after all other paths' effects have been controlled for. Table 4.5, summarizes the results of path analyses with the direct effects of the variables.

Table 4.5

Unstandardized Path Weights, Standard Errors (SE), and p Values for Direct Paths for the Proposed Model

Path	Weight	SE	*p*
Perceived body fat from:			
Self-oriented perfectionism	.056	.018	.002
Socially-prescribed perfectionism	-.048	.025	.053
Perceived appearance from:			
Self-oriented perfectionism	.054	.010	***
Socially-prescribed perfectionism	-.032	.013	.015
Perceived body fat	.217	.024	***
Social appearance anxiety from:			
Self-oriented perfectionism	-.102	.027	***
Socially-prescribed perfectionism	.178	.037	***
Perceived body fat	-.296	.068	***
Dispositional flow from:			
Self-oriented perfectionism	.258	.049	***
Socially-prescribed perfectionism	.064	.066	.330
Perceived appearance	1.111	.230	***
Social appearance anxiety	-.289	.087	***

*** $p < .001$

It can be seen in Table 4.6 there are both significant and non-significant direct paths to perceived body fat, perceived appearance, social appearance anxiety and dispositional flow

with standardized beta weights, standard errors, and p values. Table 4.6 shows the standardized direct, indirect and total effects in the model. The significant beta weights ranged from .05 to .37 as it seen in the table.

Table 4.6

Standardized direct indirect and total effects in the Proposed Model

Predictor	**Criterion**	**Direct**	**Indirect**	**Total Effect**
Self-oreinted	Perceived body fat	.16	-	.16
	Perceived appearance	.26	.06	.32
	Social appearance anxiety	-.19	-.03	-.22
	Dispositional Flow	.26	.11	.37
Socially-prescribed	Perceived body fat	-.10	-	-.10
	Perceived appearance	-.11	-.04	-.15
	Social appearance anxiety	.24	.02	.26
	Dispositional Flow	.05	-.08	-.03
Perceived body fat	Perceived appearance	.37	-	.37
	Social appearance anxiety	-.19	-	-.19
	Dispositional Flow	-	.11	.11
Perceived appearance	Dispositional Flow	.23	-	.23
Social appearance anxiety	Dispositional Flow	-.15	-	-.15

The results of the path analysis showed that, perceived appearance predicted exercise participants' dispositional flow (β = .23, p < .01), indicating that positive appearance perceptions results in flow state experience. Social appearance anxiety was also found to have a significant direct effect on dispositional flow with a beta weight of -.15, p <.01, suggesting that decreased social appearance anxiety leads to increased possibility of experiencing flow state. In addition, findings also confirmed that perceived body fat is a significant predictor of perceived appearance (β = .37, p < .01) and social appearance anxiety (β = -.19, p < .01). This result suggested the indirect effect of perceived body fat

on the dispositional flow via perceived appearance and social appearance anxiety. This indirect effect had a beta weight of .11, $p < .01$. These findings indicated that perceived body fat did not influence directly dispositional flow, but directly affected perceived appearance and social appearance anxiety which in turn influenced dispositional flow.

As can be seen in Table 4.6, self-oriented perfectionism predicted perceived body fat with beta of .16. Self-oriented perfectionism predicted perceived appearance ($\beta = .26$, $p < .01$), indicating that greater self-oriented perfectionism leads greater positive appearance perceptions. Self-oriented perfectionism negatively predicted social appearance anxiety ($\beta = -.19$, $p < .01$), indicating that greater self-oriented perfectionism leads lower social appearance anxiety. Another significant effect is the direct effect of self-oriented perfectionism on dispositional flow. That is, self-oriented perfectionism predicted dispositional flow directly ($\beta = .26$, $p < .01$). The indirect effect of self-oriented perfectionism on the dispositional flow through perceived appearance had a beta weight of .17, $p < .01$; whereas the beta weight for the indirect effect of self-oriented perfectionism on the dispositional flow through social appearance anxiety was rather small ($\beta = .08$, $p < .05$).

Furthermore, socially-prescribed perfectionism did not predict significantly perceived body fat with beta of .10. Socially-prescribed perfectionism predicted perceived appearance ($\beta = -.11$, $p < .01$), indicating that greater socially-prescribed perfectionism leads greater negative appearance perceptions. Socially-prescribed perfectionism predicted social appearance anxiety ($\beta = .24$, $p < .01$), indicating that greater socially-prescribed perfectionism leads greater social appearance anxiety. On the contrary to self-oriented perfectionism, socially-prescribed perfectionism did not have a direct effect on dispositional flow ($\beta = .05$, $p > .05$). The indirect effect of socially-prescribed perfectionism on the dispositional flow through perceived appearance had a beta weight of -.12, $p < .05$; whereas the beta weight for the indirect effect of socially-prescribed

perfectionism in the dispositional flow through social appearance anxiety was rather small (β = -.06 p > .05). Overall, self-oriented perfectionism, socially-prescribed perfectionism, perceived body fat, perceived appearance, and social appearance anxiety accounted for 21 % of the total variance in dispositional flow.

Based on the gender differences, the proposed model was tested separately in female' and male' sample. The results of the path analysis for female sample showed that the data fit the model. Table 4.7 represents the goodness of fit statistics for female. The value of χ^2 was .293, p > .05, which indicated an adequate fit. The ratio χ^2 and degrees of freedom value was χ^2 / df = .293 (df = 1). Additionally, the value of CFI greater than .95, the value of NFI should be greater than.90, value of GFI should be greater than .90. RMSEA value was .00 which indicated also that very good fit to the data.

Table 4.7

Summary of Goodness of Fit Statistics for the Female Sample (n =216)

χ^2	df	χ^2 / df	p	CFI	NFI	GFI	RMSEA
.293	1	.293	.588	1.000	.999	1.000	.000

The results of the individual paths and their significance are also given for female sample data. The suggested path model for female data is depicted in Figure 4.2 with significant paths in black arrows and non-significant paths in red marked by stars.

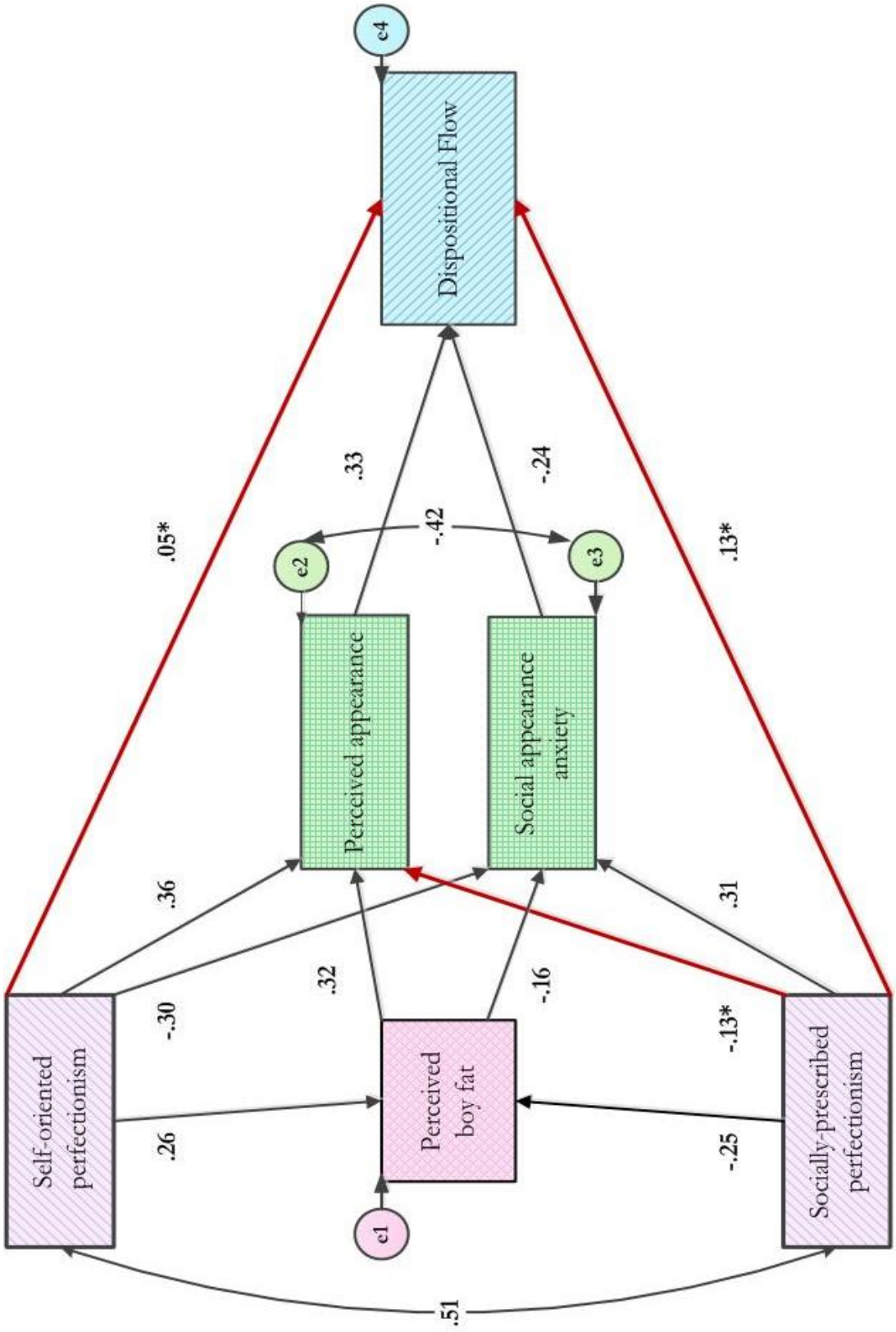

Figure 4. 2 Standardized path coefficients of the proposed model for female sample

Table 4.8, also summarizes the results of path analyses with the direct effects of the variables for the female sample.

Table 4.8

Unstandardized Path Weights, Standard Errors, and p Values for Direct Paths for Female Sample

Path	Weight	SE	*p*
Perceived body fat from:			
Self-oriented perfectionism	.77	.023	***
Socially-prescribed perfectionism	-.118	.036	.001
Perceived appearance from:			
Self-oriented perfectionism	.062	.012	***
Socially-prescribed perfectionism	-.035	.019	.067
Perceived body fat	.185	.036	***
Social appearance anxiety from:			
Self-oriented perfectionism	-.130	.033	***
Socially-prescribed perfectionism	.215	.052	***
Perceived body fat	-.238	.096	.013
Dispositional flow from:			
Self-oriented perfectionism	.047	.064	.466
Socially-prescribed perfectionism	.181	.098	.064
Perceived appearance	1.657	.353	***
Social appearance anxiety	-.480	.138	***

*** $p < .001$

As can be seen in Table 4.9, self-oriented perfectionism predicted perceived body fat with beta of .26 for female exercise participants. Self-oriented perfectionism predicted perceived appearance ($\beta = .36, p < .01$), indicating that greater self-oriented perfectionism leads greater positive appearance perceptions. Self-oriented perfectionism negatively, predicted social appearance anxiety ($\beta = -.30, p < .01$), indicating that greater self-oriented

perfectionism leads greater social appearance anxiety. However, there was no significant direct effect of self-oriented perfectionism on dispositional flow. The indirect effect of self-oriented perfectionism on the dispositional flow through perceived appearance had a beta weight of .31, $p < .01$; whereas the beta weight for the indirect effect of self-oriented perfectionism on the dispositional flow through social appearance anxiety was rather small ($\beta = .19$ $p < .05$).

Table 4.9

Standardized direct indirect and total effects in the Female Sample

Predictor	**Criterion**	**Direct**	**Indirect**	**Total Effect**
Self-oreinted	Perceived body fat	.26	-	.26
	Perceived appearance	.36	.08	.44
	Social appearance anxiety	-.30	-.04	-.34
	Flow state	.05	.23	.28
Socially-prescribed	Perceived body fat	-.25	-	-.25
	Perceived appearance	-13	-.08	-.21
	Social appearance anxiety	.31	.04	.35
	Flow state	.13	-.15	-.02
Perceived body fat	Perceived appearance	.32	-	.32
	Social appearance anxiety	-.16	-	-.16
	Dispositional flow	-	.14	.14
Perceived appearance	Dispositional flow	.33	-	.33
Social appearance anxiety	Dispositional flow	-.24	-	-.24

Furthermore, socially-prescribed perfectionism predicted significantly perceived body fat with beta of -.25. Socially-prescribed perfectionism did not predict the perceived appearance ($\beta = -.13$, $p > .05$). Socially-prescribed perfectionism also predicted social appearance anxiety ($\beta = .31$, $p < .01$), indicating that greater socially-prescribed perfectionism leads greater social appearance anxiety. However, socially-prescribed

perfectionism did not have a direct effect of self-oriented perfectionism on dispositional flow (β = .13, p > .05). The indirect effect of socially-prescribed perfectionism on the dispositional flow through perceived appearance had a beta weight of .03, p > .05; whereas the beta weight for the indirect effect of socially-prescribed perfectionism in the dispositional flow through social appearance anxiety was rather small (β = .19 p < .01).

The results of the path analysis for the female sample demonstrated that, perceived appearance predicted exercise participants' dispositional flow (β = .33, p < .01), indicating that positive appearance perceptions results in flow state experience. Social appearance anxiety was also found to have a significant direct effect on dispositional flow with a beta weight of -.24, p <.01, suggesting that decreased social appearance anxiety leads to increased possibility of experiencing flow. In addition, findings also confirmed that perceived body fat is a significant predictor of perceived appearance (β =.32, p <.01) and social appearance anxiety (β = -.16, p < .01). This result suggested the indirect effect of perceived body fat on the dispositional flow via perceived appearance and social appearance anxiety. This indirect effect had a beta weight of .14, p < .01. These findings indicated that perceived body fat did not influence directly dispositional flow, but directly affected perceived appearance and social appearance anxiety which in turn influenced dispositional flow.

The path analysis results for male sample demonstrated that the data fit the model. Table 4.10 represents the goodness of fit statistics for men. The value of χ^2 was 2.425, p > .05, which indicated an adequate fit. The ratio χ^2 and degrees of freedom value as χ^2 / df = 2.425 (df = 1). Additionally, the value of CFI greater than .95, the value of NFI should be greater than.90, value of GFI should be greater than .90, and RMSEA value was .079 indicated that good fit to the data.

Table 4.10

Summary of Goodness of Fit Statistics for Men Sample (n =230)

χ^2	*df*	χ^2 / *df*	*p*	**CFI**	**NFI**	**GFI**	**RMSEA**
2.425	1	2.425	.119	.992	.987	.997	.079

The results of the individual paths and their significance are also given for men sample data and the suggested path model for men data is also depicted in Figure 4.3 with significant paths in black arrows and non-significant paths in red. Furthermore, the path model with the beta weights (standard coefficients), which express the rate of the effect, for each significant path.

As can be seen in Figure 4.3, male exercise participants sample results are considerably different from female exercise participants. Table 4.11, also summarizes the results of path analyses with the direct effects of the variables for the male sample.

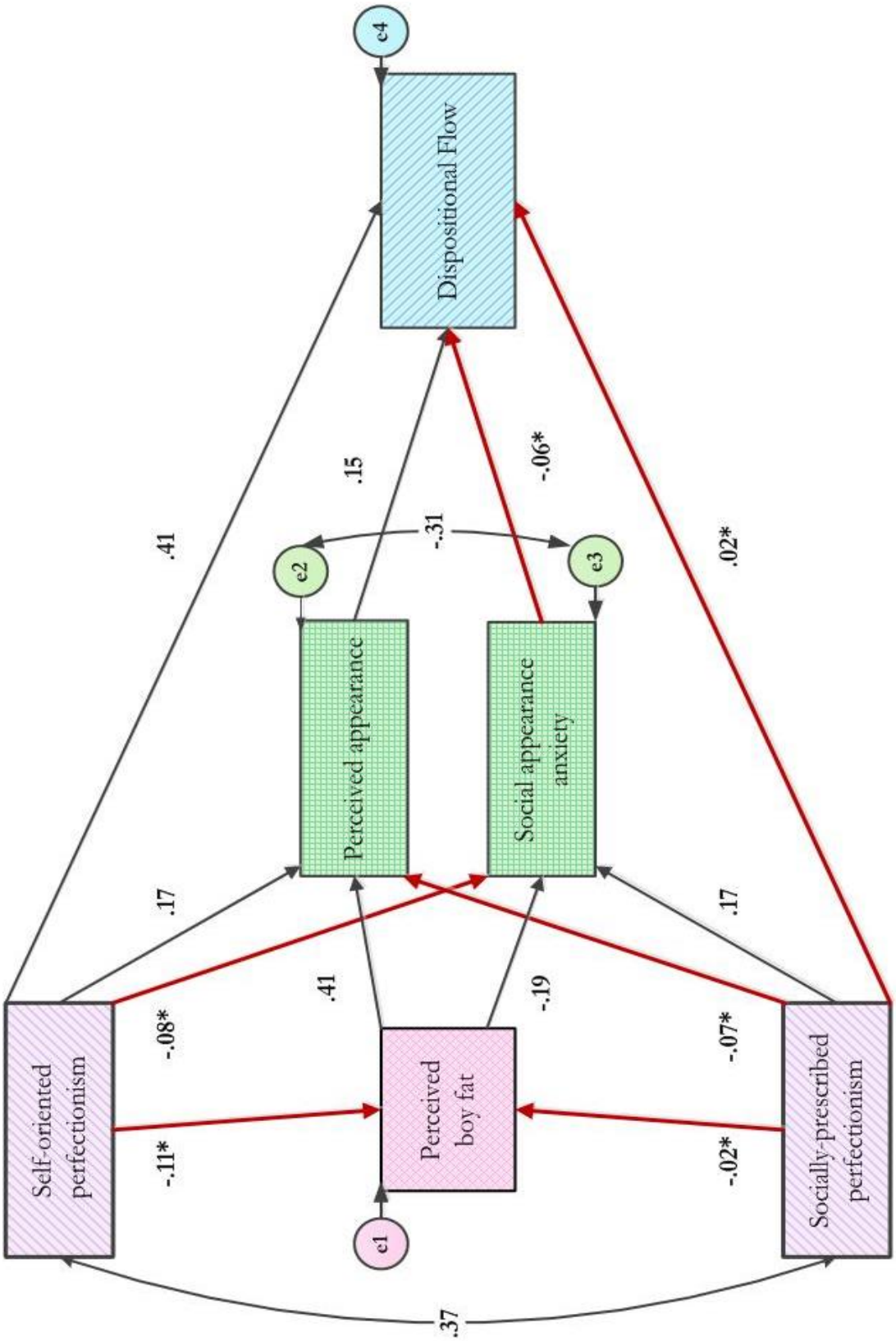

Figure 4. 3 Standardized path coefficients of the proposed model for male sample data

Table 4.11

Path Weights, Standard Errors, and p Values for Direct Paths for Men Sample

Path	Weight	SE	*p*
Perceived body fat from:			
Self-oriented perfectionism	.047	.030	.115
Socially-prescribed perfectionism	-.009	.035	.789
Perceived appearance from:			
Self-oriented perfectionism	.042	.016	.009
Socially-prescribed perfectionism	-.022	.019	.237
Perceived body fat	.243	.035	***
Social appearance anxiety from:			
Self-oriented perfectionism	-.055	.046	.230
Socially-prescribed perfectionism	.134	.054	.013
Perceived body fat	-.306	.101	.003
Dispositional flow from:			
Self-oriented perfectionism	.453	.071	***
Socially-prescribed perfectionism	.026	.083	.756
Perceived appearance	.638	.279	.022
Social appearance anxiety	-.107	.105	.305

*** $p < .001$

Self-oriented perfectionism did not predict perceived body fat with beta of .11 for male exercise participants. Self-oriented perfectionism predicted perceived appearance ($\beta = .17$, $p < .05$), indicating that greater self-oriented perfectionism leads greater positive appearance perceptions as seen in the Table 4.12. Self-oriented perfectionism did not predict social appearance anxiety ($\beta = -.08$, $p > .05$). There was a significant direct effect of self-oriented perfectionism on dispositional flow with beta of .41 ($p < .01$) for male exercise participants. The indirect effect of self-oriented perfectionism on the dispositional flow through perceived appearance had a beta weight of .09, $p > .05$; whereas the beta

weight for the indirect effect of self-oriented perfectionism on the dispositional flow through social appearance anxiety was rather small (β = .02, p < .05).

Table 4.12

Standardized direct indirect and total effects in the Men Sample

Predictor	Criterion	Direct	Indirect	Total Effect
Self-oreinted	Perceived body fat	.11	-	.11
	Perceived appearance	.17	.04	.21
	Social appearance anxiety	-.08	-.02	-.10
	Flow state	.41	.04	.45
Socially-prescribed	Perceived body fat	-02	-	-.02
	Perceived appearance	-.07	-.01	-.08
	Social appearance anxiety	.17	.00	.17
	Flow state	.02	-.02	.00
Perceived body fat	Perceived appearance	.41	-	.41
	Social appearance anxiety	-.19	-	-.19
	Dispositional flow	-	.07	.07
Perceived appearance	Dispositional flow	.15	-	.15
Social appearance anxiety	Dispositional flow	-.07	-	-.07

On the contrary, the results showed that perceived appearance predicted male exercise participants' dispositional flow (β = .15, p < .01), indicating that positive appearance perceptions results in flow experience. However, unlike female participants, social appearance anxiety was not found to have a significant direct effect on dispositional flow with a beta weight of -.06, p > .05 (Table 4. 12). Findings confirmed that perceived body fat is a significant and strong predictor of perceived appearance (β = .41, p < .01) in male participants. Social appearance anxiety also was negatively predicted by perceived body fat (β = -.19, p < .01). This result suggested the indirect effect of perceived body fat on the

dispositional flow via perceived appearance and social appearance anxiety. This indirect effect had a beta weight of .07 ($p < .01$).

Furthermore, socially-prescribed perfectionism did not predict perceived body fat with beta of -. 02. Socially-prescribed perfectionism did not predict the perceived appearance (β = -. 07, $p > .05$). Socially-prescribed perfectionism also predicted social appearance anxiety (β = .17, $p < .05$), indicating that greater socially-prescribed perfectionism leads greater social appearance anxiety. However, socially-prescribed perfectionism did not have a direct effect of self-oriented perfectionism on dispositional flow (β = .02, $p > .05$). The indirect effect of socially-prescribed perfectionism on the dispositional flow through perceived appearance had a beta weight of -.03, $p > .05$; whereas the beta weight for the indirect effect of socially-prescribed perfectionism in the dispositional flow through social appearance anxiety was rather small (β = -.01 $p > .05$).

4.6 Summary of the Results

The present study revealed that self-oriented perfectionism, perceived appearance and social appearance anxiety are significant predictors of regular exercise participants' dispositional flow. However, socially-prescribed perfectionism is not a significant predictor of regular exercise participants' dispositional flow. Moreover, study results demonstrated that self-oriented perfectionism significantly predicted regular exercise participants' perceived body fat, perceived appearance and social appearance anxiety. Socially-prescribed perfectionism is a significant predictor of regular exercise participants' perceived appearance and social appearance anxiety. On the contrary, socially-prescribed perfectionism is not a significant predictor of perceived body fat. Additionally, path analysis revealed that the proposed model goodness of fit statistics within the acceptable values.

As there are significant differences between female and male exercise participants dispositional flow, the proposed model tested for both female and male sample. Although, the goodness of the fit statistics for the proposed model is within the acceptable range, self-oriented and socially-prescribed perfectionism are not significant predictors of female exercise participants' dispositional flow. Socially-prescribed perfectionism is also not a significant predictor of female exercise participants' perceived appearance. Furthermore, male sample fit statistics of the proposed model is within the acceptable range. However, self-oriented perfectionism and perceived appearance are significant predictors for of male exercise participants' dispositional flow. On the contrary, socially-prescribed perfectionism and social appearance anxiety are not significant predictors of dispositional flow. Moreover, male exercise participants' self-oriented perfectionism is not a significant predictor of perceived body fat and social appearance anxiety of male exercise participants. While, socially-prescribed perfectionism is a significant predictor of social appearance anxiety, socially-prescribed perfectionism is not a significant predictor of male exercise participants' perceived body fat and social appearance anxiety.

CHAPTER V

DISCUSSION

The aim of the present study was to investigate the predictors of dispositional flow in a regular exercise participants' sample. Specifically, the present study investigated perfectionism and body related perceptions and how these variables worked together to accompany to the experience of flow. The proposed model was tested by means of path analysis and as the results summed up in the previous section. This section will be included in a general discussion regarding the findings, implications for practice, and the recommendations for the future studies.

5.1 Discussion Regarding the Relationships among Endogenous Variables

In the present study, it was predicted that the paths (*Path G, Path H, Path I*, and *Path J*) among endogenous variables (depicted in the Figure 1.1) would be statistically significant. Results validated the hypotheses and demonstrated significant relationships of endogenous variables.

Although, perceived body fat is not a direct predictor of dispositional flow in the present study, perceived body fat is found as a significant determinant of perceived appearance and social appearance anxiety (*Path G and Path H*). Research indicated that there is a positive correlation between appearance anxiety and certain body composition variables

such as body fat content and weight (Dion et al., 1990; Hart et al., 1989), and greater body fat content makes individuals more disappointed with their body shape (Roy et al., 2006). Similarly, the results of the current study demonstrate that low level body fat perception is a significant and positive predictor of exercise participants' appearance perception. In addition, high level body fat perception is a negative and significant predictor of exercise participants' social appearance anxiety. With respect to gender, perceived body fat is also found as a significant determinant of perceived appearance and social appearance anxiety. However, differently from female exercise participants, male participants' body fat perception is a stronger determinant of their appearance perception. Having more body fat results in body dissatisfaction among both female and male. Especially, females more probably define themselves as fat and feel more dissatisfaction about their physical appearance than males (Furnham & Calnan, 1998). While decreasing body fat is an important point for females, generally males seek to build up muscle mass (Cash, Ancis, & Strachan, 1997; Grieve, Newton, Kelley, Miller, & Kerr, 2005; Imm & Pruitt, 1991; Mintz & Kashubek, 1999). Recently, muscularity is more emphasized as a desirable outcome and muscular body ideal effect many people. Especially, men are becoming more concerned about their bodies (Davis & Cowles, 1991) due to striving for a muscular body shap, thus they are trying to reach athletic body standards in other words more muscular body. The present findings revealed that male exercise participants' body fat perception is a stronger predictor of their appearance perception than female participants' body fat perception. The difference may be associated with male exercise participants' exercise type distribution in the current sample. For example, the number of male participants of fitness, body building, football, and badminton more than the number of female participants.

Findings revealed that exercise participants' body related perceptions (perceived appearance and social appearance anxiety) were significant and direct predictors of dispositional flow. Perceived appearance positively predicted dispositional flow (*Path 1*).

Literature suggests that concerning about physical appearance have been found important factor associated with maladaptive exercise experiences and poor compliance rates (Hart et al., 1989; Leary, 1992; McAuley et al., 1995; Spink, 1992). Tiggemann and Slater (2001) suggested that constant outward appearance evaluation of one's causes reduced awareness of internal body states, and less perceptual resources available for attending to inner body experience. It can be said that the focusing on appearance increases individuals' self consciousness. Specifically, loss of self-consciousness is a required dimension in the flow setting (Jackson & Csíkszentmihályi, 1999). Csíkszentmihályi (1990) suggested that self-consciousness restricts women's possibilities for peak motivational states or "flow". This study demonstrated that exercise participants' positive appearance perception resulted in increased likelihood of experiencing flow state. This study also demonstrated that female participants' perceived appearance had highest contribution than male exercise participants' perceived appearance. Previous studies suggested that women are generally more disappointed about their physical appearance than men, and women of all ages display body image disturbance (Furnham & Calnan, 1998; Striegel-Moore & Franko, 2002). It can be concluded that perceived appearance is an important determinant of flow state, especially for female exercise participants.

In addition, the inverse relationship between social appearance anxiety and flow state has been found in the current study (*Path J*). The previous findings demonstrated that the social physique anxiety might decrease exercise motivation (Eklund & Crawford, 1994; McAuley et al., 1995). The flow experience is assumed as a source of motivation (Jackson, 1996), it is not surprising that the social appearance anxiety negatively contributes dispositional flow in the current study. Any concern and worry about self (self-consciousness) can reduce the probability of experiencing flow state (Jackson & Csíkszentmihályi, 1999). It can be concluded that high social appearance anxiety resulted in decreased likelihood experiencing flow state in exercise setting. When the findings are discussed in detail with regard to gender, social appearance anxiety is a significant

determinant of female exercise participants' dispositional flow. However, social appearance anxiety is not a significant determinant of male exercise participants' dispositional flow in the current study. In the literature, there are limited studies that investigate social physique anxiety in males, because studies suggested that social physique anxiety has affected females to a greater than males (Martin, Engles, Wirth, & Smith, 1997). Studies also indicated that females are more likely to have high level social physique anxiety (Davison & McCabe, 2005). Contrary to this view, as male have become concerned about their bodily appearance in the recent years (Frederick et al., 2007; Hildebrant, Langenbucher, & Schlundt, 2004), it was anticipated that men exercise participants social appearance anxiety would be negative and significant predictor of dispositional flow in this study. However, the findings of the present study demonstrate that social appearance anxiety is not a significant predictor of dispositional flow for male exercise participants.

5.2 Discussion Regarding the Relationships among Endogenous Variables and Self-oriented Perfectionism

The current study results revealed that self-oriented perfectionism significantly predicted perceived body fat, perceived appearance, social appearance anxiety, and dispositional flow (*Path A, Path C, Path E*, and *Path K*). As hypothesized Path A, *Path E*, and *Path K,* self-oriented perfectionism positively associated with endogenous variables.

Consistent with hypothesis (*Path A*), self-oriented perfectionism positively predicted perceived body fat. Depend on their perceptions, self-oriented perfectionists would be more likely to perceive their physical appearance as imperfect. Thus, they tend to respond negatively to imperfection, and have weight related concerns (Hewitt et al., 1995). Many people may experience maladaptive side of self-oriented perfectionism by concerning

about their physical appearance that they may not look perfect, on the contrary, many others may experience adaptive side of self-oriented perfectionism by striving to look perfect (Yang & Stoeber, 2012). It can be concluded that the results of the present study supported that higher level self-oriented perfectionism leads to higher level body fat perception. Furthermore, consistent with hypothesis (*Path E*), self-oriented perfectionism also positively predicted participants' perceived appearance.

In contrast to the hypothesis (*Path C*), the results of the path analysis demonstrated that self-oriented perfectionism negatively predicted social appearance anxiety. Although, there is no study examining the relationship between self-oriented perfectionism and social appearance anxiety, this relationship may be explained studies using social physique anxiety notion. For example, Petherick's (2002) study revealed that self-oriented perfectionism was found not to be significant, but to be positively related with social physique anxiety of beginner exercise class participants. However, the present study findings revealed that there is a reverse relationship between social appearance anxiety and self-oriented perfectionism. This finding suggested that exercise participants who have higher level self-oriented perfectionism have lower level social appearance anxiety. Therefore, it can be concluded that exercise participants of the present study experience adaptive side of self-oriented perfectionism.

As hypothesized in *Path K,* self-oriented perfectionism significantly and positively predicted dispositional flow, suggesting that self-oriented perfectionism contributes to dispositional flow. As mentioned before, perfectionism depending on one's level of awareness can be used as a positive and negative energy. Past research (Frost et al., 1990) suggested that although self-oriented perfectionists have higher standards, they do allow themselves some degree of flexibility. In addition, Silverman (1999) indicated that perfectionists are capable of experiencing flow when they are under favorable conditions. Perfectionism is also considered as a passion that results in extraordinary creative

achievement like flow experience. When viewed from this aspect, the present study provided support for that self-oriented perfectionism may contributed exercise participants' dispositional flow.

Gender difference was one of the investigated construct on dispositional flow for the current study. Results revealed that males' dispositional flow is significantly different from females' dispositional flow. Therefore, the model also tested separately for female and male participants' sample. According to the study results with regard to gender, self-oriented perfectionism is a stronger determinant of female exercise participants' body related perceptions than male exercise participants' body related perceptions. While, self-oriented perfectionism predicts female participants' perceived body fat and social appearance anxiety, self-oriented perfectionism is not a significant predictor of male exercise participants' body fat perception and social appearance anxiety. In the literature, there is no study that explains the relationships between self-oriented perfectionism and body related perceptions with regard to gender difference. However, this differentiation can be associated with the reason of males' and females' ideal body shape. While, females desire to have thinner bodies, males have reported that they want to be more muscular (Furnham & Calnan. 1998; Imm & Pruitt, 1991; Olivardia, Pope, Borowiecki, & Cohane, 2004; Ricciardelli & McCabe, 2001; Thompson et al., 2004). Although, more and more males are concerned with their appearance, the ideal body shape mostly influences women. Many females try to achieve an ideal body shape that is generally unrealistic standard causing body image dissatisfaction, eating disorders (Bardone-Cone et al., 2007). Considering the findings, while self-oriented perfectionism contributes females exercise participants' body related perceptions; it does not significantly contribute their dispositional flow in an exercise setting. On the other hand, male exercise participants' self-oriented perfectionism significantly contributes their dispositional flow.

5.3 Discussion Regarding the Relationships among Endogenous Variables and Socially-prescribed perfectionism

The present studty results revealed that socially-prescribed perfectionism significantly predicted perceived appearance and social appearance anxiety (*Path D and Path F*). However, results showed that socially-prescribed perfectionism did not predict perceived body fat and dispositional flow (*Path B and Path L*).

Inconsistent with hypothesis (*Path B*), socially-prescribed perfectionism did not significantly predicted exercise participants' body fat perception. Studies revealed that socially-prescribed perfectionism is related to an outward focus, high level extrinsic motivation (Hewitt & Flett, 1991), fear of negative evaluation, and an intense interpersonal sensitivity (Flett et al., 1996). As the socially prescribed perfectionists try to reach unrealistic ideal body shape standards, they experience body dissatisfaction when such standards are not met. Therefore, socially-prescribed perfectionism would negatively influence exercise participants' body fat perceptions. However, contrary to hypothesis, socially-prescribed perfectionism did not predict body fat perception in the present study.

As hypothesized *Path D,* perceived appearance associated with socially-prescribed perfectionism negatively. Researchers have found that socially-prescribed perfectionism was correlated with eating pathology and appearance related concerns and (Hewitt et al., 1995), and high level distorted beliefs related to the importance, effect, and meaning of physical appearance in one's life (Sherry et al., 2009). Especially, within the exercise setting, trying to attain the physical appearance standards determined by others may influence negatively exercisers' appearance related perceptions (Coen & Ogles, 1993; Haase et al., 2002). The result of the present study is in line with the previous studies which shown that socially-prescribed perfectionism negatively predicted appearance related perception.

Consistent with the hypothesis (*Path F*), socially-prescribed perfectionism predicted exercise participants' social appearance anxiety significantly and positively. This result suggests similar finding that maladaptive aspect of perfectionism is related to social physique anxiety (Coen & Ogles, 1993; Haase et al., 2002). Petherick (2002) revealed that there was a positive correlation between social physique anxiety and socially-prescribed perfectionism. This relationship is not surprising, as socially prescribed perfectionists set unrealistic high personal standards and avoid failure in the others' eyes, they may experience more concerns and anxiety about their appearance.

In contrast to hypothesis (*Path L),* socially-prescribed perfectionism did not significantly predict dispositional flow, suggesting that higher level socially-prescribed perfectionism lead to lower level dispositional flow. As socially-prescribed perfectionism has included pathological self-criticism, concerns over mistakes, and doubts about actions (Hewitt & Flett, 1991), socially-prescribed perfectionism is considered as a negative potential to weaken the positive feelings. Hewitt and Flett (1991) indicated that due to the perfectionist criteria for success lead to less satisfaction. In addition, fear of failure decrease neurotic perfectionists overall levels of enjoyment (Bunker & Williams, 1986; Burns, 1980). However, the result of the present study does not support that socially-prescribed perfectionism may be possible predictor of dispositional flow.

According to gender related findings, socially-prescribed perfectionism significantly and negatively predicted female exercise participants' body fat perceptions. As mentioned before, females more frequently and intensely dissatisfied with their physical appearance than males do (Usmiani & Daniluk, 1997), and they are influenced ideal body shape especially weight and body fat. Therefore, female exercisers body fat perceptions may be influenced by their Socially-prescribed perfectionism. However, contrary to expectation, socially-prescribed perfectionism neither did not influence female exercisers' nor male

exercisers' perceived appearance. Although, socially-prescribed perfectionism did not predict exercise participants' perceived appearance, socially-prescribed perfectionism, as expected, positively predict both female and male exercise participants' social appearance anxiety. The findings of the Hewitt and colleagues (1995) study indicated that socially-prescribed perfectionism and perfectionistic self-presentational concern was associated with disordered eating symptoms, low self-esteem, and body image avoidance. Haase and colleagues (2002) conducted a study to investigate the relationships between perfectionism and social physique anxiety. Results showed that for both female and male exercise participants negative perfectionism was significantly associated with social physique anxiety. The present study support this result, higher level socially-prescribed perfectionism lead to higher level social appearance anxiety.

Lastly, in contrast to hypothesis, results also showed for both female and male exercise participants that socially-prescribed perfectionism did not a significant predictor of the dispositional flow. Since socially prescribed perfectionists need to reach high standards and expectations set by significant others, this results in feeling of overly critical evaluations of their behavior and dissatisfaction from their performance (Hewitt & Flett, 1991; Vansteenkiste et al., 2010). Therefore, socially prescribed perfectionists' extreme expectations may prevent their actual performance (Hewitt & Flett, 1991, 2004). Stoeber and Yang's (2010) study revealed that socially-prescribed perfectionism positively related to dissatisfaction, in other words, participants who have higher level socially-prescribed perfectionism felt more dissatisfaction than exercise participants who have lower level socially-prescribed perfectionism not only when obtaining a flawed outcome, but also when obtaining a flawless outcome. Although, socially-prescribed perfectionism is thought to be maladaptive side of perfectionism, unexpectedly, present study results demonstrated that socially-prescribed perfectionism did not predict significantly and negatively exercise participants' dispositional flow.

As a general conclusion, the present study revealed different aspects of the flow state experienced by regular exercise participants. The current study showed that self-oriented perfectionism and body related perceptions, as contributors, play important roles in the flow experience. To my knowledge, the association between perfectionism and dispositional flow has not been reported, especially with regard to gender. In addition to, literature generally supports that there is no significant differences in flow state with regard to gender. Inconsistent with the previous studies (Russell, 2001; Stavrou, Zervas, Karteroliotis, & Jackson, 2007), the current study findings showed that male exercise participants' dispositional flow was significantly different from female participants dispositional flow. Therefore, the proposed path model was separately tested for female and male exercisers' sample.

The results of path analysis of the whole sample and men participants' sample, the positive relationships between self-oriented perfectionism and dispositional flow highlighted the adaptive aspect of self-oriented perfectionism. When appropriate, this contribution revealed that self-oriented perfectionism may be seen as a positive energy source for positive experiences such as flow experience. Moreover, the findings of the study indicated that the socially-prescribed perfectionism considered as the maladaptive aspect of perfectionism do not contribute flow state of regular exercise participants. It can be concluded that, the data of the current study did not support the proposed model of dispositional flow. In addition, the proposed model of dispositional flow did not describe both female and male sample data. The analysis suggested that the some relationships should be removed from the model. However, since this study is a first known study in the literature with perfectionism, body related perceptions, and dispositional flow, any path did not remove from the proposed model.

5.4 Implications for Practice

The present study explored the direct and indirect effects of self-oriented, socially-prescribed perfectionism and body related perceptions on dispositional flow among regular exercise participants. The findings of present study suggest certain implications for practice. First of all, the current findings have important implication for studies on perfectionism in exercise settings, because they support for the claim that perfectionism have not necessarily maladaptive characteristic which decreases athletic performance (Flett & Hewitt, 2005). The findings show that self-oriented perfectionism and dispositional flow are positively correlated, so the self-oriented perfectionism might be considered as adaptive aspect of perfectionism. It can be concluded that the self-oriented perfectionism might provide positive energy to experience flow state in exercise setting.

Secondly, the current study helps expand the field of literature exploring the flow experience by further opening the door about the influencing factors of flow state in exercise settings. The findings from the present study can also provide valuable information regarding the relationships between body related perceptions and dispositional flow. The positive perceptions related to appearance might facilitate flow experience; while negative physical perceptions (i.e. social appearance anxiety) might inhibit the flow experience. In this respect, positive body related perceptions seem to be more important to both females and males in facilitating the likelihood of experiencing a flow state in the exercise settings. The positive body related perceptions may influence the dispositional flow, then, enjoyment derive from the exercise may contribute to maintenance of exercise behavior. Therefore, individuals should persuade to change their attitudes toward their physical appearance to enjoy their exercise, and exercise participants should consider exercise as an opportunity for experiencing the positive psychological benefits rather than viewing exercise as a mean to improve their physical appearance. To

experience positive feelings in exercise setting, exercisers' should focus what their bodies can do instead of focusing their physical appearance.

Thirdly, the findings of the highlight the necessity to arrange exercise environments for female and male exercise participants based on the exercise type. In doing so, female exercise participants may obtain positive feelings like flow experience that this increase to likelihood of the long term exercise adherence. For example, Prichard and Tiggeman (2008) indicated that the female exercise participants in fitness centers surrounded by mirrors and posters emphasized the ideal body. Moreover, other female exercise participants' bodies lead female exercisers to make comparisons, and in turn, ideal body standards lead female exercisers to focus on weight loss. These may influence the likelihood of experiencing positive feelings, in turn negatively influence the female fitness exercise participnats exercise maintenance.

From an applied perspective, it is intended that the findings of this study will allow greater insight into exercise participants and provide exercise environment coordinators in generating exercise environment for the long-term participation and the quality of the flow experience for exercise participants.

5.5 Recommendations for Future Research

The findings of present study provide some recommendations for future research. First recommendation could be with regard to the sample, in that the present study participants consisted of various types of sport and exercise, and thus the findings can not be generalized for the regular exercisers' population. Future research could extend by sampling sub-groups of exercisers like recreational exercisers and athletes, so that

comparisons can be made between various samples. This will aid understanding of relationships among perfectionism, body related perceptions and the flow state.

Future research may also consider using other measures such as reasons for exercise in order to see the relationships among exercisers' reasons for exercise, body related perceptions and flow experience. Exercising for appearance related reasons might influence exercisers' body related perceptions. However, exercising for health or enjoyment might provide positive body related perceptions to exercisers.

As exercise type especially certain types of sport and exercise (body-building, swimming, dance, yoga and Pilates) may influence exercise participants' body related perceptions, proposed model can be tested in further studies with different kinds of sport and exercise types. In addition, participants' ages 17-40 years in this study, this wide age range may effect exercise participants' body related perceptions. Therefore, it is suggested to conduct future studies with people in different age ranges like 18-30 and 30-45 years.

Finally, the present study is the first attempt to investigate the relationships among perfectionism, body related perceptions and dispositional flow in regular exercise participants, thus finfings of the present study are certainly preliminary. Furthermore, present study includes only selected variables. For example, body related perceptions in the present study include perceived body fat, perceived appearance and social appearance anxiety. Different variables as body related perceptions may be used to test the proposed model. Moreover, in order to improve the proposed model different variables can be integrated to the proposed model.

REFERENCES

Anton, S. D., Perri, M. G., & Riley, J. R. (2000). Discrepancy between actual and ideal body images: Impact on eating and exercise behaviors. *Eating Behaviors*, 1, 153-160.

Antony, M. M., & Swinson, R. P. (2009). *When perfect isn't good enough: Strategies for coping with perfectionism.* United States of America, New Harbinger Publications Inc, pp. 10.

Appleton, P. R., Hall, H. K., & Hill, A. P. (2009). The influence of perfectionism on junior-elite athlete burnout. *Psychology of Sport & Exercise*, 10, 457-465.

Asakawa, K. (2004). Flow experience and autotelic personality in Japanese college students: How do they experience challenges in daily life?. *Journal of Happiness Studies*, 5(2), 123-154.

Aşçı, F. H., Çağlar, E., Eklund, R. C., Altıntaş, A., & Jackson, S. (2007). Durumluk ve sürekli optimal performan duygu durum-2 ölçeklerinin uyarlama çalışması, *Hacettepe Journal of Sport Sciences*, 18 (4), 182-196.

Baker, A. B., Oerlemans, W., Demerouti, E., Slot, B. B., & Ali, D. K. (2011). Flow and performance: A study among talented Dutch soccer players. *Psychology of Sport and Exercise*, 12, 442-450.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.

Bardone-Cone, A. M., Wonderlich, S. A., Frost, R. O., Bulik, C. M., Mitchell, J. E., Uppala, S., & Simonich, H. (2007). Perfectionism and eating disorders: current status and future directions. *Clinical Psychology Review*, 27(3), 384-405.

Belling, L. R. (1992). *The relationship between social physique anxiety and physical activity*. Master's thesis. University of North Carolina, Chapel Hill.

Bentler, P. M. (1990). Comparative Fit Indexes in Structural Models. *Psychological Bulletin*, 107 (2), 238-46.

Blatt, S. J. (1995). The destructiveness of perfectionism. *American Psychologist*, 50, 1003-1020.

Bordo, S. (2003). *Unbearable weight: Feminism, Western culture, and the body*. Berkeley, CA: University of California Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.

Bunker, L., & Williams, J. M. (1986). Cognitive techniques for improving performance. In J.M. Williams (Ed.), *Applied Sport Psychology* (pp. 240-255). Mountainview, CA: Mayfield.

Burns, D. D. (1980). The perfectionists script for self-defeat. *Psychology Today*, 34-51.

Byrne, B. M. (1991). The Maslach Burnout Inventory: validating factorial structure and invariance across intermediates, secondary, and university educators. *Multivariate Behavioral Research*, 26 (4), 583-605.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: basic concepts, applications, and programming,* (2nd Ed.)NJ: Lawrence Erlbaum Associates, Inc.

Cash, T. F., & Fleming, E. (2002). The impact of body image experiences: Development of the Body Image Quality of Life Inventory. *International Journal of Eating Disorders*, 31, 455-460.

Cash, T. F., & Pruzinsky, T. (2002). *Body Image: A Handbook of Theory, Research, and Clinical Practice.* New York, NY: Guilford Press.

Cash, T. F., & Szymanski, M. L. (1995). The development and validation of the Body-Image Ideals Questionnaire. *Journal of Personality Assessment*, 64, 466-477.

Cash, T. F., Ancis, J. R., & Strachan, M. D. (1997). Gender attitudes, feminist identity, and body images among college women. *Sex Roles*, 36 (7/8), 433-445.

Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*, 100, (2), 126-131.

Catley, D., & Duda, J. L. (1997). Psychological antecedents of the frequency and intensity of flow in golfers. *International Journal of Sport Psychology*, 28, 309-322.

Chavez, E. (2008). Flow in sport: A study of college athletes. *Imagination, Cognition and Personality*, 28, 69-91.

Coen, S. P., & Ogles, B. M. (1993). Psychological characteristics of the obligatory runner: A critical-examination of the anorexia analogue hypothesis. *Journal of Sport and Exercise Psychology*, 15 (3), 338-354.

Collins, A. L., Sarkisian, N., & Winner, E. (2009). Flow and happiness in later life: An investigation into the role of daily and weekly experiences. *Journal of Happiness Studies*, 10, 703-719.

Conroy, D. E., Motl, R. W., & Hall, E. G. (2000). Progress toward construct validation of the Self-presentation in Exercise Questionnaire. *Journal of Sport & Exercise Psychology*, 22, 21- 38.

Cox, B. J., Enns, M. W., & Clara, I. P. (2002). The multidimensional structure of perfectionism in clinically distressed and college student samples. *Psychological Assessment*, 14, 365-373.

Crawford, S., & Eklund, R. C. (1994). Social physique anxiety, reasons for exercise, and attitudes toward exercise settings. *Journal of Sport and Exercise Psychology*, 16 (1), 70-82.

Crust, L., & Swann, C. (2013). The relationship between mental toughness and dispositional flow. *European Journal of Sport Science*, 13, 2, 215-220.

Csíkszentmihályi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.

Csíkszentmihályi, M. (1982). Toward a psychology of optimal experience. In L. Wheeler (Ed.), *Review of personality and social psychology*, Vol. 2 (pp. 13-35). Beverly Hills, CA: Sage Publications.

Csíkszentmihályi, M. (1988). The flow experience and its significance for human psychology. In M. Csíkszentmihályi & I. S. Csíkszentmihályi (Eds.), *Optimal experience: Psychological studies of flow in consciousness*, (pp. 15-35). Cambridge: Cambridge University Press.

Csíkszentmihályi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper Collins.

Csíkszentmihályi, M. (1993). *The evolving self: A psychology for the third millennium*. New York, NY: Harper Perennial.

Csíkszentmihályi, M. (1997). *Finding Flow: The psychology of engagement with everyday life*. Basic Books, HarperCollins Publishers, New York.

Csíkszentmihályi, M. (2000). *Beyond boredom and anxiety. Experiencing flow in work and play*. San Francisco: Jossey-Bass. (Original work published 1975).

Csíkszentmihályi. M., & Csíkszentmihályi, S. I. (1988). *Optimal Experience: Psychological Studies of Flow in Consciousness*, Cambridge University Press, Cambridge, UK, 3-36.

Csíkszentmihályi, M., Abuhamdeh, S., & Nakamura, J. (2005). *Flow, in Elliot, A., Handbook of Competence and Motivation*, New York: The Guilford Press, 598-698.

Csíkszentmihályi, M., & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness Studies*, 4 (2), 185-199.

Culos-Reed, S. N., Brawley, L. R., Martin, K. A., & Leary, M. R. (2002). Self-presentation concerns and health behaviors among cosmetic surgery patients. *Journal of Applied Social Psychology*, 32, 560-569.

Cumming, J. & Duda, J. L. (2012). Profiles of perfectionism, body-related concerns, and indicators of psychological health in vocational dance students: An investigation of the 2 x 2 model of perfectionism. *Psychology of Sport and Exercise*, 13, 729-738.

Davis, C., Brewer, H., & Weinstein, M. (1993). A study of appearance anxiety in young men. *Social Behaviour and Personality*, 21, 63-74.

Davis, C., & Cowles, M. (1991). Body image and exercise: A study of relationships and comparisons between physically active men and women. *Sex Roles,* 25, 33-44.

Davison, T., & McCabe, M. P. (2005). Relationship between men and women's body image and psychological, social, and sexual functioning, *Sex Roles*, 52, 463-475.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

Dion, K. L., Dion, K. K., & Keelan, J. P. (1990). Appearance anxiety as a dimension of social-evaluative anxiety: Exploring the ugly duckling syndrome. *Contemporary Social Psychology*, 14, 220-224.

Doğan, T. (2010). Sosyal görünüş kaygısı ölçeği'nin (SGKÖ) türkçe uyarlaması: Geçerlik ve güvenirlik çalışması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi (H. U. Journal of Education)*, 39, 151-159.

Dorland, J. M. (2006). *Objectification theory: examining the relation between self-objectification and flow for college-aged women athletes* (Doctoral dissertation). Retrievd from https://www.ohiolink.edu/etd/

Dunkley, D. M., Zuroff, D. C., & Blankstein, K. R. (2003). Self-critical perfectionism and daily affect: Dispositional and situational influences on stress and coping. *Journal of Personality and Social Psychology*, 84, 234-252.

Dunn, J. G. H., Causgrove Dunn, J., & Syrotuik, D. G. (2002). Relationship between multidimensional perfectionism and goal orientations in sport. *Journal of Sport and Exercise Psychology*, 24, 376-395.

Dunn, J. G. H., Craft, H. M., Causgrove Dunn, J., & Gotwals, J. K. (2011). Comparing a domain-specific and global measure of perfectionism in competitive female figure skaters. *Journal of Sport Behavior*, 34, 1, 25-46.

Dunn, J. G. H., Gotwals, J. K., Causgrove Dunn, J. C. & Syrotuik, D. G. (2006). Examining the relationship between perfectionism and trait anger in competitive sport. *International Journal of Sport and Exercise Psychology*, 4, 7-24.

Eklund, R. C., & Crawford, S. (1994). Active women, social physique anxiety, and exercise. *Journal of Sport and Exercise Psychology*, 16, 431-448.

Enns, M. W., & Cox, B. J. (2002). The nature and assessment of perfectionism: A critical analysis. In G. L. Flett & P. L. Hewitt (Eds.), *Perfectionism. Theory, research and treatment.* Washington, DC: American Psychological Association, 33-62.

Fan, X., Thompson, B., & Wang, L. (1999). Effects of Sample Size, Estimation Methods, and Model Specification on Structural Equation Modeling Fit Indexes. *Structural Equation Modeling*, 6 (1), 56-83.

Ferrand, C., Magnan, C., Rouveix, M., & Filaire, E. (2007). Disordered eating, perfectionism and body-esteem of elite synchronized swimmers. *European Journal of Sport Science*, 7 (4), 223-230.

Flett, G. L., & Hewitt, P. L. (2002). Perfectionism and maladjustment: An overview of theoretical, definitional, and treatment issues. In G.L. Flett & P.L. Hewitt (Eds.), *Perfectionism: Theory, research and practice* (pp. 5-31). Washington, DC: American Psychological Association.

Flett, G. L., & Hewitt, P. L. (2005). The perils of perfectionism in sports and exercise. *Current Directions in Psychological Science*, 14, 14-18. DOI: 10.1111/j.0963-7214.2005.00326.x.

Flett, G. L., Hewitt, P. L., & De Rosa, T. (1996). Dimensions of perfectionism, psychosocial adjustment and social skills. *Personality and Individual Differences*, 20, 143-150.

Flett, G. L., Hewitt, P. L., Blankstein, K. R. & Pickering, D. (1998). Perfectionism in relation to attributions for success and failure. *Current Psychology: Developmental, Learning, Personality, Social*, 17, 249-262.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., & O'Brien, S. (1991). Perfectionism and learned resourcefulness in depression and self-esteem. *Personality and Individual Differences*, 12, 61-68.

Flett, G. L., Hewitt, P. L., Blankstein, K. R., Solnik, M., & Van Brunschot, M. (1996). Perfectionism, social problem-solving ability, and psychological distress. *Journal of Rationale-Emotive and Cognitive-Behavior Therapy*, 14, 245-274.

Flett, G. L., Hewitt, P. L., Garshowitz, M., & Martin, T. R. (1997). Personality, negative social interactions, and depressive symptoms. *Canadian Journal of Behavioral Science*, 29, 28-37.

Focht, B. C., & Hausenblas, H. A. (2004). Perceived evaluative threat and state anxiety during exercise in women with social physique anxiety. *Journal of Applied Sport Psychology*, 16(4), 361-368.

Frederick, C. M., & Ryan, R. M. (1993). Differences in motivation for sport and exercise and their relations with participation and mental health. *Journal of Sport Behavior*, 16, 124-146.

Frederick, D. A., Buchanan, G. M., Sadehgi-Azar, L., Peplau, L. A., Haselton, M. G., & Berezovskaya, A. (2007). Desiring the muscular ideal: Men's body satisfaction in the United States, Ukraine, and Ghana, *Psychology of Men and Masculinity*, 8, 103-117.

Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21, 173-206.

Frost, R. O., & Henderson, K. J. (1991). Perfectionism and reactions to athletic competition. *Journal of Sport and Exercise Psychology*, 13, 323-335.

Frost, R. O., Marten, P., Lahart, C., & Rosenblate, R. (1990). The dimensions of perfectionism. *Cognitive Therapy and Research*, 14, 449-468.

Frost, R.O., Heimberg, Holt, C. , Mattia, J., & Neubauer, A. (1993). A comparison of two measures of perfectionism. *Personality and Individual Differences*, 14, 119-126.

Furnham, A., & Calnan, A. (1998). Eating disturbance, self-esteem, reasons for exercising and body weight dissatisfaction in adolescent males. *European Eating Disorder Review*, 6, 58-72.

Garner, D. M., Olmstead, M., & Polivy, J. (1983). Development and validation of multidimensional eating disorder inventory for anorexia nervosa and bulimia. *International Journal of Eating Disorders*, 2, 15-34.

Gotwals, J. K., Dunn, J. G. H., & Wayment, H. A. (2003). An examination of perfectionism and self-esteem in intercollegiate athletes. *Journal of Sport Behavior*, 26, 17-37.

Gould, D., Eklund, R. C., & Jackson, S. A. (1992). 1988 U.S. Olympic wrestling excellence: I. Mental preparation, precompetitive cognition, and affect. *The Sport Psychologist*, Vol 6 (4), 358-382.

Gould, D., Udry, E., Tuffey, S., & Loehr, J. (1996). Burnout in competitive junior tennis players: I.A quantitative psychological assessment. *The Sport Psychologist*, 10, 322-340.

Grieve, F. G., Newton, C. C., Kelley, L., Miller, R. C., Jr., & Kerr, N. A. (2005). The preferred male body shapes of college men and women. *Individual Differences Research*, 3, 188-192.

Grogan, S. (2008). *Body Image: Understanding body dissatisfaction in men, women, and children*. 2nd Ed. Routledge, Taylor & Francis Group, New York.

Haase, A. M., Prapavessis, H., & Owens, R. G. (2002). Perfectionism, social physique anxiety and disordered eating: a comparison of male and female elite athletes. *Psychology of Sport and Exercise*, 3, 209-222.

Hagan, A. L., & Hausenblas, H. A. (2003). The relationship between exercise dependence and perfectionism. *American Journal of Health Studies*, 18, 133-137.

Hall, H. K., Hill, A. P., Appleton, P. R., & Kozub, S. A. (2009). The mediating influence of unconditional self-acceptance and labile self-esteem on the relationship between multidimensional perfectionism and exercise dependence. *Psychology of Sport and Exercise*, 10, 35-44.

Hall, H. K., Kerr, A. W., & Matthews, J. (1998). Precompetitive anxiety in sport: The contribution of achievement goals and perfectionism. *Journal of Sport and Exercise Psychology*, 20, 194-217.

Hall, H. K., Kerr, A. W., Kozub, S. A., & Finnie S. B. (2007). Motivational antecedents of obligatory exercise: The influence of achievement goals and multidimensional perfectionism. *Psychology of Sport and Exercise*, 8, 297-316.

Hamachek, D. E. (1978). Psychodynamics of normal and neurotic perfectionism. Psychology: *A Journal of Human Behavior*, 15(1), 27-33.

Hart, E. A., Leary, M. R., & Rejeski, W. J. (1989). The measurement of social physique anxiety. *Journal of Sport and Exercise Psychology*, 11 (1): 94-104.

Hart, T. A., Flora, D. B., Palyo, S. A. Fresco, D. M., Holle, C., & Heimberg, G. (2008). Development and examination of the social appearance anxiety scale. *Assessment*, 15-48. DOI: 10.1177/1073191107306673.

Harter, S. (1990). Causes, correlates, and the functional role of global self-worth: A life-span perspective. In R.J. Sternberg & J. Kolligian, Jr. (Eds.), *Competence considered* (pp.67-97). New Haven, CT: Yale University.

Hausenblas, H. A., & Symons Downs, D. (2002). How much is too much? The development and validation of the exercise dependence scale. *Psychology and Health*, 17, 387-404.

Heller, E. A. (2013). *Differences between appearance anxiety, perfectionistic Self-presentation, and patterns of disordered Eating among female aesthetic athletes.* (Master's thesis). Northern Illinois University. UMI: 1540588.

Henderson-King, E., & Henderson-King, D. (1997). Media effects on women's body esteem: Social and individual difference factors. *Journal of Applied Social Psychology*, 27, 399-417.

Hewitt, P. L., & Flett, G. L. (1991). Dimensions of perfectionism in unipolar depression. *Journal of Abnormal Psychology*, 100, 98-101.

Hewitt, P. L., & Flett, G. L. (1993). Dimensions of perfectionism, daily stress, and depression: A test of the specific vulnerability hypothesis. *Journal of Abnormal Psychology*, 102, 58-65.

Hewitt, P. L., & Flett, G. L. (2004). *Multidimensional Perfectionism Scale: Technical manua*l. Toronto, ON: Multi-Health Systems Inc.

Hewitt, P. L., Flett, G. L., & Ediger, E. (1995). Perfectionistic traits and perfectionistic self-presentation in eating disorder attitudes, characteristics, and symptoms. *International Journal of Eating Disorders*, 18, 317-326.

Hewitt, P. L., Flett, G. L., & Ediger, E. (1996). Perfectionism and depression: Longitudinal assessment of a specific vulnerability hypothesis. *Journal of Abnormal Psychology*, 105, 276-280.

Hewitt, P. L., Flett, G. L., Sherry, S. B., Habke, M., Parkin, M., Lam, R. W., ...Stein, M. (2003). The interpersonal expression of perfection: Perfectionistic self-presentation and psychological distress. *Journal of Personality and Social Psychology*, 84, 1303-1325.

Hildebrandt T, Langenbucher J, & Schlundt D. G. (2004). Muscularity concerns among men: development of attitudinal and perceptual measures. *Body Image*, 1, 169-181.

Hill, A. P., & Appleton, P. R. (2011). The predictive ability of the frequency of perfectionistic cognitions, self-oriented perfectionism, and socially-prescribed perfectionism in relation to symptoms of burnout in youth rugby players. *Journal of Sport Sciences*, 29 (7), 695-703.

Hill, A. P., Hall, H. K., Appleton, P, R., & Kozub, S. R. (2008). Perfectionism and burnout in junior elite soccer players: The mediating influence of unconditional self-acceptance. *Psychology of Sport and Exercise*, 9, 630- 644.

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *Electronic Journal of Business Research Methods*, 6 (1), 53-60.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit Indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6 (1), 1-55.

Hu, L., Bentler, P. M., & Kano, Y. (1992). Can test statistics in covariance structure analysis be trusted? *Psychological Bulletin*, 112, 351-362.

Huddy, D. C., Nieman, D. C., & Johnson, R. L. (1993). Relationships between body image and percent body fat among college male varsity athletes and nonathletes. *Perceptual and Motor Skills*, 77, 851-857.

Imm, P. S., & Pruitt, J. (1991). Body shape satisfaction in female exercisers and non-exercisers. *Women and Health*, 17, 87-96.

Ingledew, D. K., & Sullivan, G. (2001). Effects of body mass and body image on exercise motives in adolescence. *Psychology of Sport and Exercise*, 3, 323-338.

Jaccard, J., & Wan, C. K. (1996). *LISREL approaches to interaction effects in multiple regression*. Thousand Oaks, CA: Sage Publications.

Jackson, S. A. (1992a). Athletes in flow: A qualitative investigation of flow states in elite figure skaters. *Journal of Applied Sport Psychology*, 4, 161-180.

Jackson, S. A. (1992b). *Elite athletes in flow: The psychology of optimal sport experience*. (Doctoral dissertation). University of North Carolina at Greensboro.

Jackson, S. A. (1995). Factors influencing the occurrence of flow state in elite athletes. *Journal of Applied Sport Psychology*, 7, 138-166.

Jackson, S. A. (1996). Toward a conceptual understanding of the flow experience in elite athletes. *Research Quarterly for Exercise and Sport*, 67(1), 76-90.

Jackson, S. A. (2000). Joy, Fun, and Flow State in Sport. In Hanin, Y.L. (Ed.) *Emotions in Sport* (pp. 135-155), United States of America, Human Kinetics.

Jackson, S. A., & Csíkszentmihályi, M. (1999). *Flow in sports*. Champaign, IL: Human Kinetics.

Jackson, S. A., & Eklund, R. C. (2002). Assessing flow in physical activity: The Flow State Scale-2 and Dispositional Flow Scale-2. *Journal of Sport and Exercise Psychology*, 24(2), 133-150.

Jackson, S. A., & Eklund, R. C. (2004). *The Flow Scales Manual*. Morgantown, WV: Fitness Information Technology.

Jackson, S. A., & Roberts, G. C. (1992). Positive performance states of athletes: Toward a conceptual understanding of peak performance. *The Sport Psychologist*, 6, 156-171.

Jackson, S. A., Kimiecik, J. C., Ford, S. K., & Marsh, H. W. (1998). Psychological correlates of flow in sport. *Journal of Sport and Exercise Psychology*, 20, 358-378.

Jackson, S. A., Thomas, P. R., Marsh, H. W., & Smethurst, C. J. (2001). Relationships between flow, self-concept, psychological skills, and performance. *Journal of Applied Sport Psychology*, 13, 129-153.

Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*. Chicago, IL: Scientific Software International Inc.

Jöreskog, K., & Sörbom, D. (1996). *LISREL 8: User's Reference Guide*. Chicago, IL: Scientific Software International Inc.

Kanfer, F., & Hagerman, S. (1981). The role of self-regulation. In L. Rehm (Ed.), *Behavior therapy for depression: Present state and future directions* (pp. 143-179). New York: Academic Press

Kantardzic, M. (2003). *Data Mining: Concepts, Models, Methods, and Algorithms*, IEEE, John Wiley & Sons, Inc, New Jersey, Canada, pp. 36.

Karageorghis, C. I., & Terry, P. C. (1997). The psychophysical effects of music in sport and exercise: A review, *Journal of Sport Behavior,* 20: 54-68.

Karageorghis, C. I., Vlachopoulos, S. P., & Terry, P. C. (2000). Latent variable modeling of the relationship between flow and exercise-induced feelings: An intuitive appraisal perspective. *European Physical Education Review*, 6: 230-248.

Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Evaluation of mindful sport performance enhancement (MSPE): A New Approach to Promote Flow in Athletes. *Journal of Clinical Sports Psychology*, 4, 334-356.

Kaye, M. P., Conroy, D.E., & Fifer, A. M. (2008). Individual differences in incompetence avoidance: A comparison of multiple dimensions of perfectionism and fear of failure. *Journal of Sport and Exercise Psychology*, 30, 110-132.

Keith, T. (2006). *Multiple regression and beyond.* PEARSON Allyn & Bacon.

Kelloway, E. K. (1998). *Using LISREL for structural equation modeling.* Sage publications, Unites States of America.

Killen, J. D., Taylor, C. B., Hayward, C., Wilson, D. M., Simmonds, B., Robinson, T. N., ... Kraemer, H. (1994). Pursuit of thinness and onset of eating disorder symptoms in a community sample of adolescent girls: A three year prospective analysis. *International Journal of Eating Disorders*, 16(3), 227-238. [PubMed: 7833956].

Kimiecik, J. C., & Harris, A. T. (1996). What is enjoyment? A conceptual/definitional analysis with implications for sport and exercise psychology. *Journal of Sport and Exercise Psychology*, 18, 257-263

Kline, R. B. (2005). *Principles and practice of structural equation modeling,* (2nd ed.). New York: The Guilford Press.

Kowal, J., & Fortier, M. S. (1999). Motivational determinants of flow: Contributions from self-determination theory. *Journal of Social Psychology*, 139 (3), 355-368.

Lantz, C. D., Hardy, C. J., & Ainsworth, B. E. (1997). Social physique anxiety and perceived exercise behavior, *Journal of Sport Behavior*, 20: 83-93.

Leary, M. R., (1992). Self-presentational processes in exercise and sport. *Journal of Sport and Exercise Psychology*, 14, 339-351.

Leary, M. R. (1995). *Self-presentation: Impression management and interpersonal behavior*. Madison, WI: Brown & Benchmark.

Leit, R. A., Pope, H. G., & Gray, J. J. (2000). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders*, 29, 90-93.

Levinson, C. A., & Rodebaugh, T. L. (2011). Validation of the Social Appearance Anxiety Scale: Factor, convergent, and divergent validity. *Assessment*, 18 (3), 350-356.

Lleras, C. (2005). Path analysis. In K. K. Leonard (Eds.) *Encyclopedia of social measurement,* Volume 3 (pp. 25-30). Elseiver Inc.

Loehlin, J. C. (2004). *Latent Variable Models: An Introduction to Factor, Path, and Structural Equation Analysis,* (4th ed.). NJ: Lawrence Erlbaum Associates.

Longbottom, J., Grove, J. R., & Dimmock, J. A. (2010). An examination of perfectionism traits and physical activity motivation. *Psychology of Sport and Exercise*, 11, 574-581.

Lyubomirsky, S., King, L., & Diener, E. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success?. *Psychological Bulletin*, 131, 6, 803-855.

MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1 (2), 130-49.

Mack, D. E., Strong, H. A., Kowalski, K. C., & Crocker, P. R. E. (2006). Self-presentational motives in eating disordered behavior: A known group difference approach. *Eating Behaviors*, 8, 98-105.

Marcus, B. H., Selby, V. C., Niaura, R. S., & Rossi, J. S. (1992). Self-efficacy and the stages of exercise behaviour change. *Research Quarterly for Exercise and Sport*, 63, 60-66.

Marquez, D. X., & McAuley, E. (2001). Physique anxiety and self-efficacy influences on perceptions of physical evaluation. *Social Behavior and Personality*, 29, 649-660.

Marsh, H. W., & Redmayne, R. (1994). A multidimensional physical self-concept and its relations to multiple components of physical fitness. *Journal of Sport and Exercise Psychology*, 16, 43-55.

Marsh, H. W., Aşçı, F. H., & Marco, I. T. (2002a). Multitrait-multimethod analyses of two physical self-concept instruments: A cross-cultural perspective. *Journal of Sport and Exercise Psychology*, 24, 99-119.

Marsh, H. W., Marco, I. T., & Aşçı, F. H. (2002b). Cross cultural validity of the physical self-description questionnaire: comparison of factor structures in Australia, Spain and Turkey. *Research Quarterly for Exercise and Sport*, 73, 257-270.

Marsh, H. W., Richards, G. E., Johnson, S., Roche, L., & Tremayne, P. (1994). Physical self-description questionnaire: psychometric properties and a multi-trait multi-method analysis of relations to existing instruments. *Journal of Sport and Exercise Psychology*, 16, 270-305.

Martin, J. A., Tipler, D. V., Marsh, H. V., Richards, G. E., & Williams, M. R. (2006). Assessing multidimensional physical activity motivation: A construct validity study of high school students. *Journal of Sport and Exercise Psychology*, 28, 171-192.

Martin, J. J., Engels, H. J., Wirth, I., & Smith, K. L. (1997). Predictors of social physique anxiety in elite youth female athletes. *Women in Sport and Physical Activity Journal*, 6,29-48.

Martin, T. R., Flett, G. L., Hewitt, P. L., Krames, L., & Szanto, G. (1996). Personality correlates of depression and health symptoms: A test of a self-regulation model. *Journal of Research in Personality*, 31, 264-277.

Maruyama, G. M. (1998). *Basics of structural equation modeling*. SAGE Publications, Inc. Thousand Oaks, CA

Massimini, F., & Carli, M. (1988). The systematic assessment of flow in daily experience. In Csíkszentmihályi, M., & Csíkszentmihályi, I. (eds.). *Optimal Experience: Psychological Studies of Flow in Consciousness.* Cambridge University Press, 266-287.

Massimini, F., Csíkszentmihályi, M., & Carli, M. (1987). The monitoring of optimal experience: A tool for psychiatric rehabilitation. *Journal of Nervous and Mental Disease*, 175(9), 545-549.

McAuley, E., Bane, S. M., Rudolph, D. L., & Lox, C. L. (1995). Physique anxiety and exercise in middle-aged adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 50, 229-235.

McGee, B. J., Hewitt, P. L, Sherry, S. B., Parkin, M., & Flett, G. L. (2005). Perfectionistic self-presentation, body image, and eating disorder symptoms. *Body Image*, 2, 29-40.

McHugh, T. L., Kowalski, K. C., Mack, D. E., Crocker, P. R. E., Junkin, S. E., Lejbak, L. K., et al. (2008). Young women's experiences of social physique anxiety. *Feminism and Psychology*, 18, 231-252.

Mills, J., & Blankstein, K. R. (2000). Perfectionism, intrinsic vs. extrinsic motivation, and motivated strategies for learning: A multidimensional analysis of university students. *Personality and Individual Differences*, 29, 1191-1204.

Mintz, L. B., & Kashubeck, S. (1999). Body image and disordered eating among Asian–American and Caucasian college students: An examination of race and gender differences. *Psychology of Women Quarterly*, 23, 781-796.

Moneta, G. B., & Csíkszentmihályi, M. (1996). The effect of perceived challenges and skilss on the quality of subjective experience. *Journal of Personality*, 64, 266-310.

Montanez, C. M. (2011). *An exploration of flow experiences among California central Valley high school instrumental music students.* (Doctoral dissertation). Fresno, California State University.

Moreno, J. A., Cervelló, E., & González-Cutre, D. (2008). Relationships among goal orientations, motivational climate and flow in adolescent athletes: Differences by gender. *The Spanish Journal of Psychology*, 11, 1, 181-191.

Olivardia, R., Pope, H. G., Borowiecki, J. J., & Cohane, G. H. (2004). Biceps and body image: The relationship between muscularity and self-esteem, depression, and eating disorder symptoms. *Psychology of Men and Masculinity*, 5, 112-120.

Oral, M. (1999). *The relationship between dimensions of perfectionism, stressful life events and depressive symptoms in university students: A test of diathesis stress model of depression* (Master's thesis). Ankara, Middle East Technical University.

Pacht, A. R. (1984). Reflections on perfection. *American Psychologist*, 39, 4, 386-390.

Petherick, C. M. (2002). *The influence of perfectionism on social physique anxiety.* (Master's thesis). Bedford, United Kingdom, De Montfort University.

Petosa, R. L., & Holtz, B. (2013) Flow for exercise adherence: Testing an intrinsic model of health behavior, *American Journal of Health Education*, 4, 5, 273-277, DOI: 10.1080/19325037.2013.811364

Prichard, I., & Tiggeman, M. (2008). Relations among exercise type, self-objectification, and body image in the fitness centre environment: The role of reasons for exercise. *Psychology of Sport and Exercise*, 9, 855-866.

Privette, G. (1983). Peak experience, peak performance, and flow: A comparative analysis of positive human experiences. *Journal of Personality and Social Psychology*, 45 (6), 1361-1368.

Privette, G., & Brunderick, C. M. (1991). Peak experience, peak performance, and how: correspondence of personal descriptions and theoretical constructs. *Journal of Social Behavior and Personality*, 6, 169-188.

Rejeski, W. J. (1992). Motivation for exercise behavior: A critique of theoretical directions, In G. C. Roberts (ed.), *Motivation in Sport and Exercise* (pp. 129-158). Champaign, IL: Human Kinetics.

Ricciardelli, L. A., & McCabe, M. P. (2001). Dietary restraint and negative affect as mediators of body dissatisfaction and bulimic behavior in adolescent girls and boys. *Behaviour Research and Therapy,*39, 1317-1328.

Rosen, J. C., Srebnik, D., Saltzberg, E., & Wendt, S. (1991). Development of a body image avoidance questionnaire. Psychological Assessment: *A journal of consulting and clinical Psychology*, 1, 32-37.

Roy, J. L. P., Hunter, G.R., & Blaudeau, T. E. (2006). Percent body fat is related to body-shape perception and dissatisfaction in students attending an all women's college, *Perceptual and Motor Skills*, 103, 677-684.

Russell, W. D. (2001). An exaniation of flow state occurrence in college athletes. *Journal of Sport Behavior*, 24(1), 83-107.

Russell, W. D., & Cox, R. H. (2003). Social physique anxiety, body dissatisfaction, and self-esteem in college females of differing exercise frequency, perceived weight discrepancy, and race. *Journal of Sport Behavior,* 26, 298-317.

Sabiston, C. M., Sedgwick, W. A., Crocker, P. R. E., Kowalski, K. C., & Mack, D. E. (2007). Social physique anxiety in adolescents: an examination of influences, coping strategies and health behaviors. *Journal of Adolescent Research*, 22, 78-101.

Sallis, J. F., & Hovell, M. F. (1990). Determinants of exercise behavior. *Exercise and Sport Science Reviews*, 18, 307-330.

Schumacker, R. E., & Lomax, R. G. (1996). *A beginner's guide to structural equation modeling*. New Jersey: Lawrance Erlbaum Associates Publishers.

Schüler, J., & Brunner, S. (2009). The rewarding effect of flow experience on performance in a marathon race. *Psychology of Sport and Exercise*, 10, 1, 168-174.

Seligman, M. E. P., & Csíkszentmihályi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14.

Seo, E. H. (2008). Self-efficacy as a mediator in the relationship between self-oriented perfectionism and academic procrastination. *Social Behavior and Personality*, 36(6), 753-764.

Sherry, S. B., Vriend, J. L., Hewitt, P. L., Sherry, D. L., Flett, G. L., & Wardrop, A. A. (2009). Perfectionism dimensions, appearance schemas, and body image disturbance in communitymembers and university students. *Body Image*, 6, 83-89.

Shroff, H., Reba, L., Thornton, L. M., Tozzi, F., Klump, K. L., Berrettini, W. H., et al. (2006). Features associated with excessive exercise in women with eating disorders. *International Journal of Eating Disorders*, 39, 454-461.

Silverman, L. K. (1999). Perfectionism. *Gifted Education International*, 13(3), 216-255.

Snyder, R. (1997). Self-discrepancy theory, standards for body evaluation and eating disorder symptomatology among college women. *Women and Health*, 26(2), 69-84.

Spink, K. S. (1992). Relation of anxiety about social physique to location of participation in physical activity. *Perceptual and Motor Skills*, 74, 1075-1078.

Stavrou, N. A., Zervas, Y., Karteroliotis, K., & Jackson, S. A. (2007). Flow experience and athletes' performance with reference to the orthogonal model of flow. *The Sport Psychologist*, 21, 438-457.

Steiger, J. H. (1990). Structural model evaluation and modification. *Multivariate Behavioral Research*, 25, 214-12.

Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences,* 42, 893-898.

Stein, G. L., Kimiecik, J. C., Daniels, J., & Jackson, S. A. (1995). Psychological antecedents of flow in recreational sport. *Personality and Social Psychology Bulletin*, 21, 125-135.

Stevens, J.P. (2009). *Applied multivariate statistics for the social sciences,* (5th ed.). New York: Routledge.

Stoeber, J. (2011). The dual nature of perfectionism in sports: Relationships with emotion, motivation, and performance. *International Review of Sport and Exercise Psychology*, 4(2), 128-145. DOI: 10.1080/1750984x.2011.604789.

Stoeber, J., & Crombie, R. (2010). Achievement goals and championship performance: Predicting absolute performance and qualification success. *Psychology of Sport and Exercise*, 11, 513-521.

Stoeber, J., Feast, A. R., & Hayward, J. A. (2009). Self-oriented and socially prescribed perfectionism: Differential relationships with intrinsic and extrinsic motivation and test anxiety. *Personality and Individual Differences*, 47, 423-428.

Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review*, 10, 295-319.

Stoeber, J., & Stoeber, F. S. (2009). Domains of perfectionism: Prevalence and relationships with perfectionism, gender, age, and satisfaction with life. *Personality and Individual Differences*, 46, 530-535.

Stoeber, J., Uphill, M. A., & Hotham, S. (2009). Predicting race performance in triathlon: The role of perfectionism, achievement goals, and personal goal setting. *Journal of Sport and Exercise Psychology*, 31, 211-245.

Stoeber, J., & Yang, H. (2010). Perfectionism and emotional reactions to perfect and flawed achievements: Satisfaction and pride only when perfect. Personality and *Individual Differences*, 49(3), 246-251.

Stoll, O., Lau, A., & Stoeber, J. (2008). Perfectionism and performance in a new basketball training task: Does striving for perfection enhance or undermine performance? *Psychology of Sport and Exercise*, 9, 620-629.

Strauman, T. J., Vookles, J., Bernestein, V. Chaiken, S. & Higgins, E. T. (1991). Self-discrepancies and vulnerability to body dissatisfaction and disordered eating. *Journal of Personality and Social Psychology*, 51, 946-956.

Striegel-Moore, R., Franko, D. (2002). Body Image Issues among Girls and Women. In T. F. Cash & T. Pruzinsky (Eds.), *Body Image: A handbook of theory, research, and clinical practice* (p. 183-191). New York: Guilford Press.

Sugiyama, T., & Inomata, K. (2005). Qualitative examination of flow experience among top Japanese athletes. *Perceptual and Motor Skills*, 100, 969-982.

Swann, C., Keegan, R. J., Piggott, D., & Crust, L. (2012). A systematic review of the experience, occurrence, and controllability of flow states in elite sport. *Psychology of Sport and Exercise*, 13, 807-819.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). New York: Allyn and Bacon.

Taranis, L., & Meyer, C. (2010). Perfectionism and compulsive exercise among female exercisers: High personal standards or self-criticism?. *Personality and Individual Differences*, 49, 3-7.

Teixeira, P. J., Going, S. B., Houtkooper, L. B., Cussler, E. C., Metcalfe, L. L., Blew, R. M., et al. (2006). Exercise motivation, eating, and body image variables as predictors of weight control. *Medicine & Science in Sports & Exercise*, 38, 179-188.

Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty. Theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association.

Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The sociocultural attitudes toward appearance questionnaire (SATAQ- 3): Development and validation. *International Journal of Eating Disorders*, 35, 293-304.

Tiggemann, M. & Slater, A. (2001). A test of objectification theory in former dancers and non-dancers. *Psychology of women quarterly*, 25, 57-64.

Tiggemann, M., & Williamson, S. (2000). The effect of exercise on body satisfaction and self-esteem as a function of age and gender. *Sex Roles*, 43 (1-2), 119-127.

Tipler, D., Marsh, H. W., Martin, A. J., Richards, G. E., & Williams, M. R. (2004). An investigation into the relationship between physical activity motivation, flow, physical self-concept and activity levels in adolescence. In H.W. Marsh, J. Baumert, G.E. Richards, & U. Trautwein (Eds.), *Self-concept, motivation an identity: Where to from here? Proceedings of the SELF*. Research Biennial International Conference, Max Planck Institute Berlin, Germany.

Usmiani, S., & Daniluk, J. (1997). Mothers and their adolescent daughters: relationship between self-esteem, gender role identity, and body image. *Journal of Youth and Adolescence*, 26, 45-62.

Vallance, J. K. H., Dunn, J., G., H., & Causgrove Dunn, J. L. (2006). Perfectionism, Anger, and situation criticality in competitive youth ice hockey. *Journal of Sport and Exercise Psychology*, 28, 383-406.

Vansteenkiste, M., Smeets, S., Soenens, B., Lens, W., Matos, L., & Deci, E. (2010). Autonomous and controlled regulation of performance approach goals: their relations to perfectionism and educational outcomes. *Motivation and Emotion*, 34, 333-353.

Vea, S., & Pensgaard, A. M. (2004). *The relationship between perfectionism and flow among young elite athletes*. Paper presented at the Advancement of Applied Sport Psychology Annual Conference, Minneapolis, MN, September.

Weinberg, R. S. & Gould, D. (2003). *Foundations of sport and exercise psychology*. Champaign, IL: Human Kinetics.

Williams, P., & Cash, T. F. (2001). Effects of a circuit weight training program on the body images of college students. *International Journal of Eating Disorders*, 30 (1), 75-82.

Yang, H., & Stoeber, J. (2012). The Physical Appearance Perfectionism Scale: Development and preliminary validation. *Journal of Psychopathology and Behavioral Assessment*, 34 (1), 69-83.

Young, J. A. (2000). Professional tennis players in the zone. In S. J. Haake, & A. Coe (Eds.), *Tennis science and technology*. Malden, MA: Blackwell Science.

Young, J. A., & Pain, M. (2005). *Factors influencing flow experiences of professional tennis players*, Paper presented at the ISSP 11th World Congress of Sport Psychology, Sydney, Australia, August.

APPENDICES

Appendix A: Ethical Committee Permission

1956

Orta Doğu Teknik Üniversitesi
Middle East Technical University
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Sayı: B.30.2.ODT.0.AH.00.00/126/62 -637

22 Mayıs 2012

Gönderilen: Yrd. Doç. Dr. Sadettin Kirazcı
Beden Eğitimi ve Spor Bölümü
Gönderen : Prof. Dr. Canan Özgen
IAK Başkan Yardımcısı
İlgi : Etik Onayı

" Sosyal Fizik Kaygı, Nesnelleştirilmiş Vücut Bilinci ve Benlik Saygısının Çok Boyutlu Mükemmeliyetçilik ve Sürekli Optimal Performans Duygu Durumu Arasındaki İlişkiyle Bağdaştırıcı Etkisi " isimli araştırmanız ''İnsan Araştırmaları Komitesi'' tarafından uygun görülerek gerekli onay verilmiştir.

Bilgilerinize saygılarımla sunarım.

Etik Komite Onayı

Uygundur

22/05/2012

Prof.Dr. Canan ÖZGEN
Uygulamalı Etik Araştırma Merkezi
(UEAM) Başkanı
ODTÜ 06531 ANKARA

Appendix B: Questionnaires

Değerli katılımcı;

Bu çalışmada sizin kendinize ilişkin duygu ve düşüncelerinizi değerlendirmeye yönelik ifadeler bulunmaktadır. Verdiğiniz cevaplar tamamıyla gizli tutulacak, sadece araştırmacı tarafından değerlendirilecektir ve elde edilecek bilgiler bilimsel yayınlarda kullanılacaktır. Cevap verirken samimi olmanız çalışmamız için çok önemlidir. Bu çalışmaya katıldığınız için şimdiden teşekkür ederim.

Gaye ERKMEN

ODTÜ / Beden Eğitimi ve Spor Bölümü

Bölüm I

Cinsiyetiniz: □ Kadın □ Erkek

Yaşınız: .....

Düzenli spor / egzersiz yapıyor musunuz? □ Evet □ Hayır

Yapmış olduğunuz spor / egzersiz: .....

Düzenli olarak ne kadar süredir yapıyorsunuz? ..... ay ….. yıl

Haftada kaç gün ..... ve kaç kez ..... egzersiz yapıyorsunuz

Bölüm II

Bu bölümde yeralan maddeleri dikkatli okuyarak sizi en iyi ifade eden kutucuğu "X" işaretleyiniz.

	Tamamen Yanlış	Genellikle Yanlış	Kısmen Yanlış	Kısmen Doğru	Genellikle Doğru	Tamamen Doğru
1. Yaşıma göre çekiciyim.	1	2	3	4	5	6
2. Çok şişmanım.	1	2	3	4	5	6
3. Hoş görünen bir yüzüm var.	1	2	3	4	5	6
4. Belim çok kalındır.	1	2	3	4	5	6
5. Arkadaşlarımın çoğundan daha iyi görünümlüyüm.	1	2	3	4	5	6
6. Vücudum yağlıdır.	1	2	3	4	5	6

Bölüm III

Aşağıdaki maddeler dış görünüşünüzün başkaları tarafından değerlendirilmesinin size neler hissettirdiğini ifade etmektedir. Size uygun olan kutucuğu "X" işaretleyiniz.

	Hiç uygun değil	Uygun değil	Biraz uygun	Uygun	Tamamen uygun
1. Dış görünüşümle ilgili kendimi rahat hissederim.	1	2	3	4	5
2. Fotoğrafım çekilirken kendimi gergin hissederim.	1	2	3	4	5
3. İnsanlar doğrudan bana baktıklarında gerilirim.	1	2	3	4	5
4. İnsanların görünüşümden dolayı benden hoşlanmayacakları konusunda endişelenirim.	1	2	3	4	5
5. Yanlarında olmadığım zamanlarda insanların, görünüşümle ilgili kusurlarımı konuşacaklarından endişelenirim.	1	2	3	4	5
6. Görünüşümden dolayı insanların benimle beraber vakit geçirmek istemeyeceklerinden endişelenirim.	1	2	3	4	5

Bölüm IV

Bu bölümde kişilik özelliği ve davranışlarına ilişkin bir dizi ifade bulunmaktadır. Her ifadeyi okuduktan sonra o maddede belirtilen fikre katılma derecenizi "**hiç katılmıyorum**" dan "**tamamen katılıyorum**"a doğru size uygun olan rakamı işaretleyerek belirtiniz.

	Hiç katılmıyorum			Kararsızım			Tamamen katılıyorum
6. Çevremdekiler benim de hata yapabileceğimi kolaylıkla kabullenirler.	1	2	3	4	5	6	7
7. Bir işi ne kadar iyi yaparsam çevremdekiler daha da iyisini yapmamı beklerler.	1	2	3	4	5	6	7
8. Mükemmel olma ihtiyacını nadiren hissederim.	1	2	3	4	5	6	7
9. Yaptığım bir şey kusursuz değilse çevremdekiler tarafından yetersiz bulunur.	1	2	3	4	5	6	7
10. Olabildiğim kadar mükemmel olmaya çalışırım.	1	2	3	4	5	6	7
11. Girıştiğim her işte mükemmel olmam çok önemlidir.	1	2	3	4	5	6	7

Bölüm V

Lütfen bu bölümdeki ifadeleri yaptığınız egzersiz/spor deneyimini düşünerek okuyunuz. Buradaki ifadeler, yaptığınız spor sırasında genel olarak yaşadığınız duygular ya da edindiğiniz düşüncelerle ilgilidir. Etkinlik sırasındaki bu duygu ve düşüncelere ne sıklıkla sahip olduğunuzu ifade eden dereceyi "X" işaretleyiniz.

	Hiçbir	Nadiren	Bazen	Sık sık	Her zaman
1. Zorlanırım; ama becerilerimin bu zorluğu yeneceğine inanırım.	1	2	3	4	5
2. Düşünmeksizin doğru hareketleri yaparım.	1	2	3	4	5
3. Ne yapmak istediğimi çok iyi bilirim.	1	2	3	4	5
4. Performansım konusunda net bir fikre sahibim.	1	2	3	4	5
5. Dikkatimi tamamen yapmakta olduğum şeye odaklarım.	1	2	3	4	5
6. Yaptıklarım üzerinde kontrole sahibimdir.	1	2	3	4	5

Appendix C: Coefficients in Standardized Values for the Instruments

Figure C 1.1 Coefficients in Standardized Values for the Perceived Body Fat Subscale

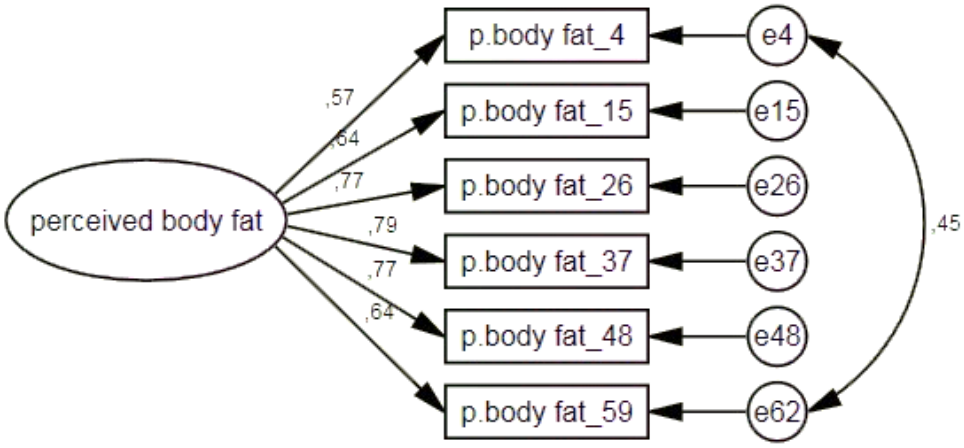


Figure C 1.2 Coefficients in Standardized Values for the Perceived Appearance Subscale

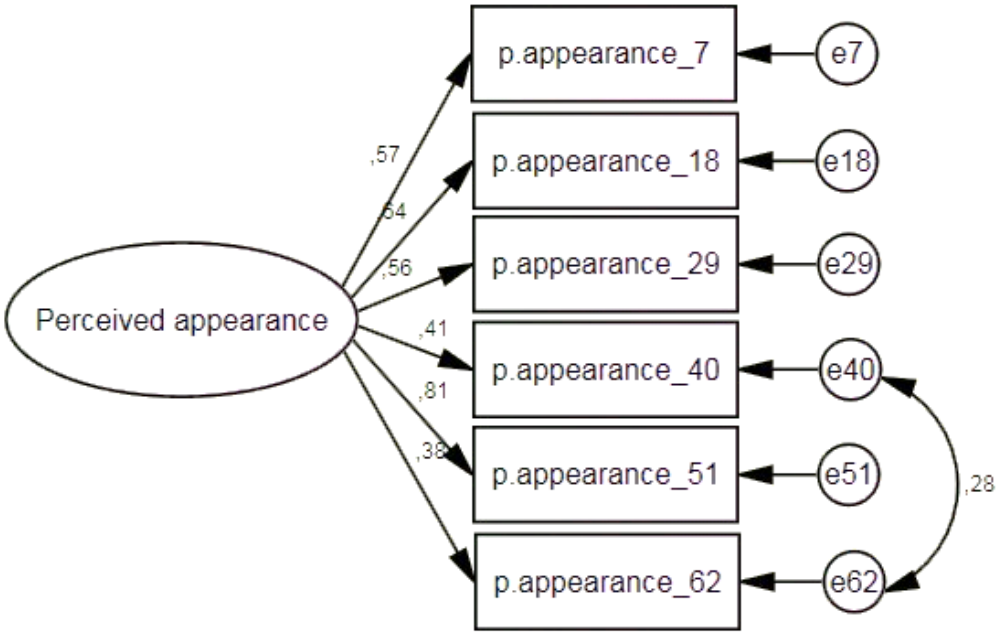


Figure C 1.3 Coefficients in Standardized Values for the Social Appearance Anxiety

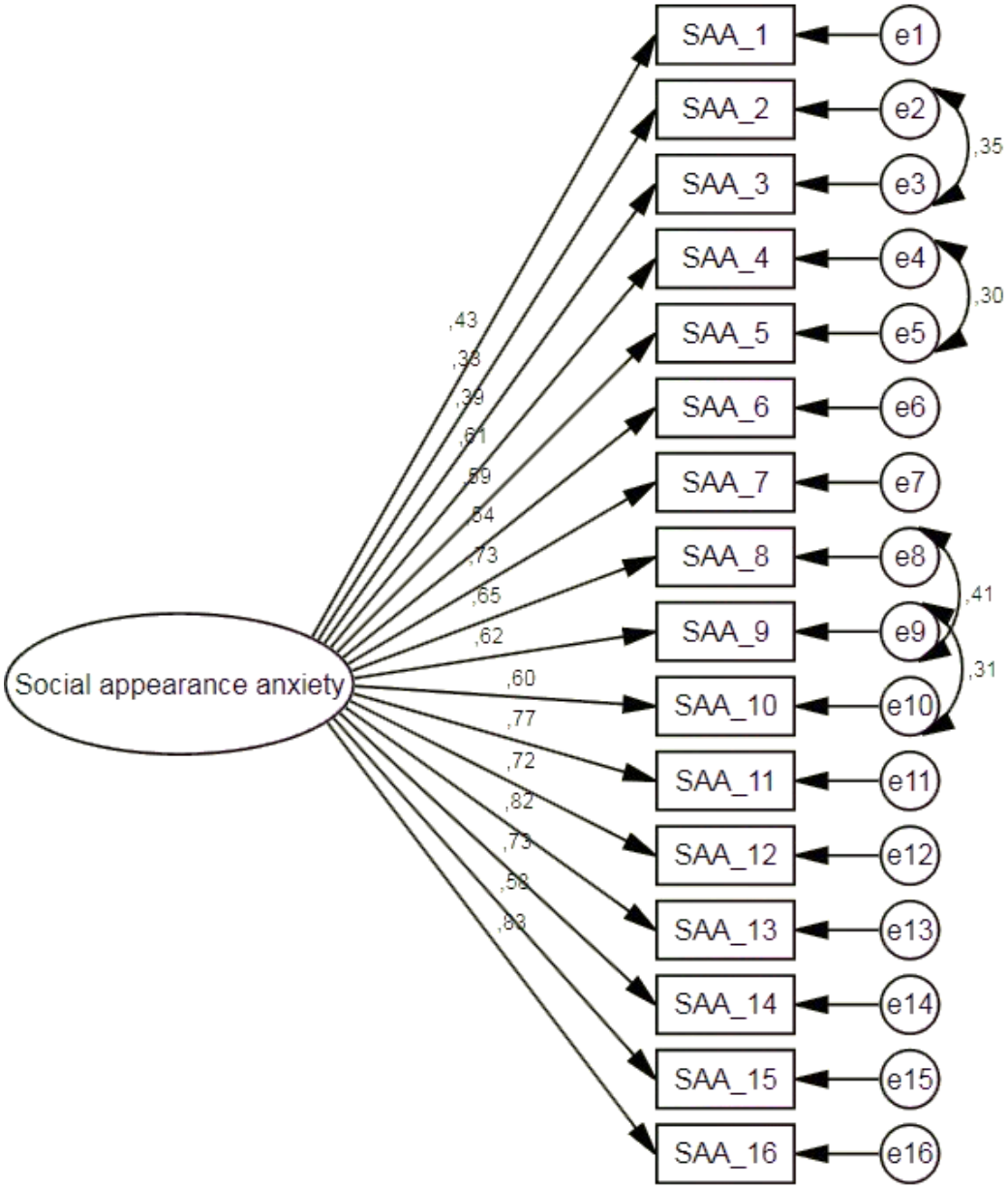


Figure C 1.4 Coefficients in Standardized Values for the Self-oriented Perfectionism Subscale

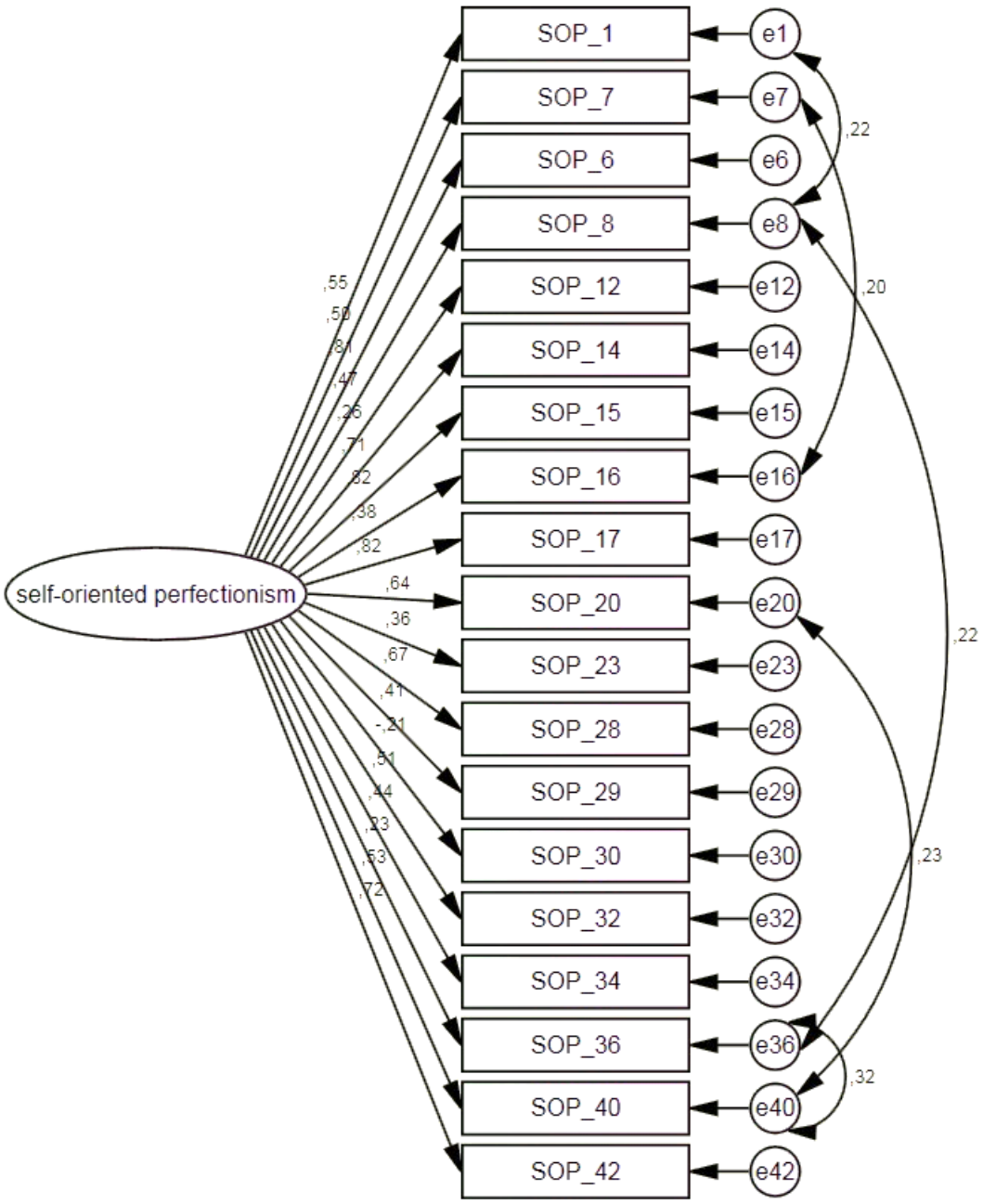


Figure C 1.5 Coefficients in Standardized Values for the Socially-prescribed Perfectionism Subscale

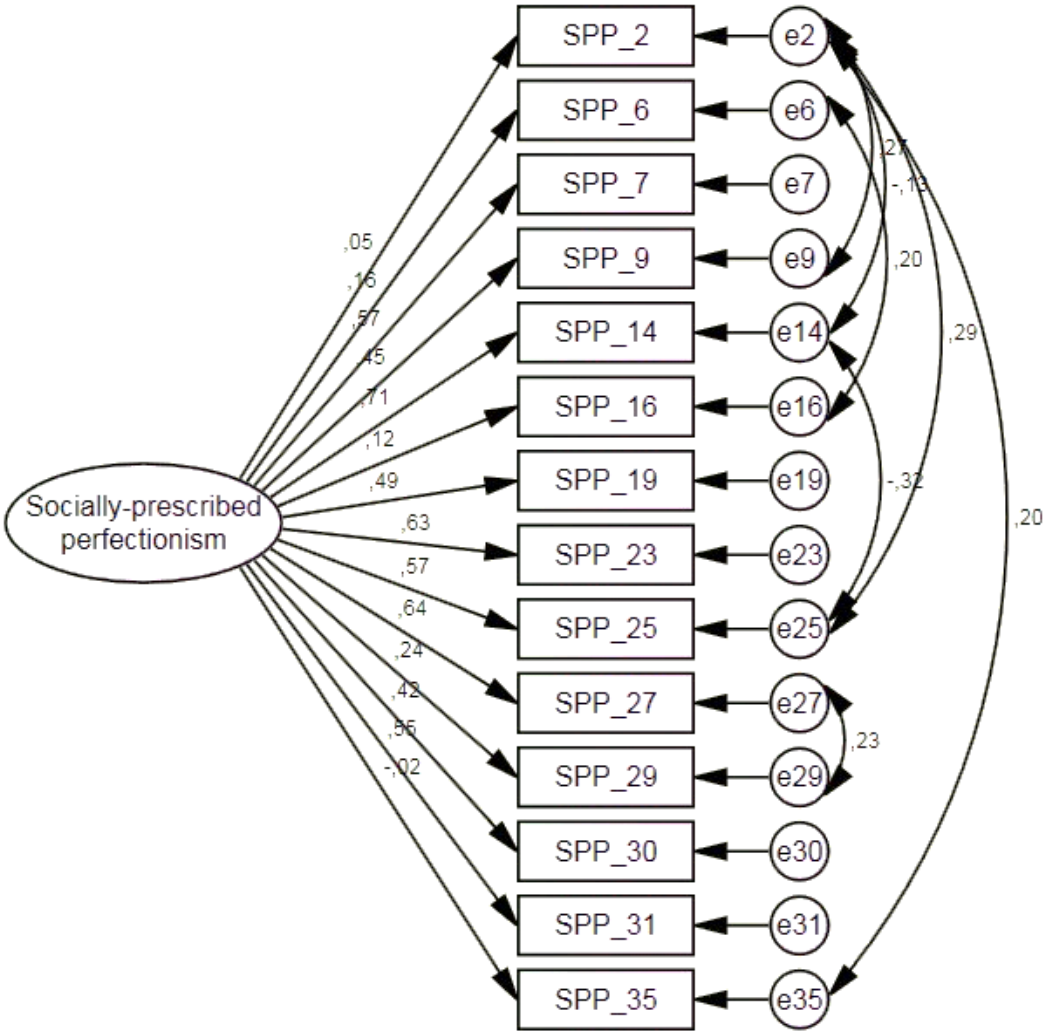
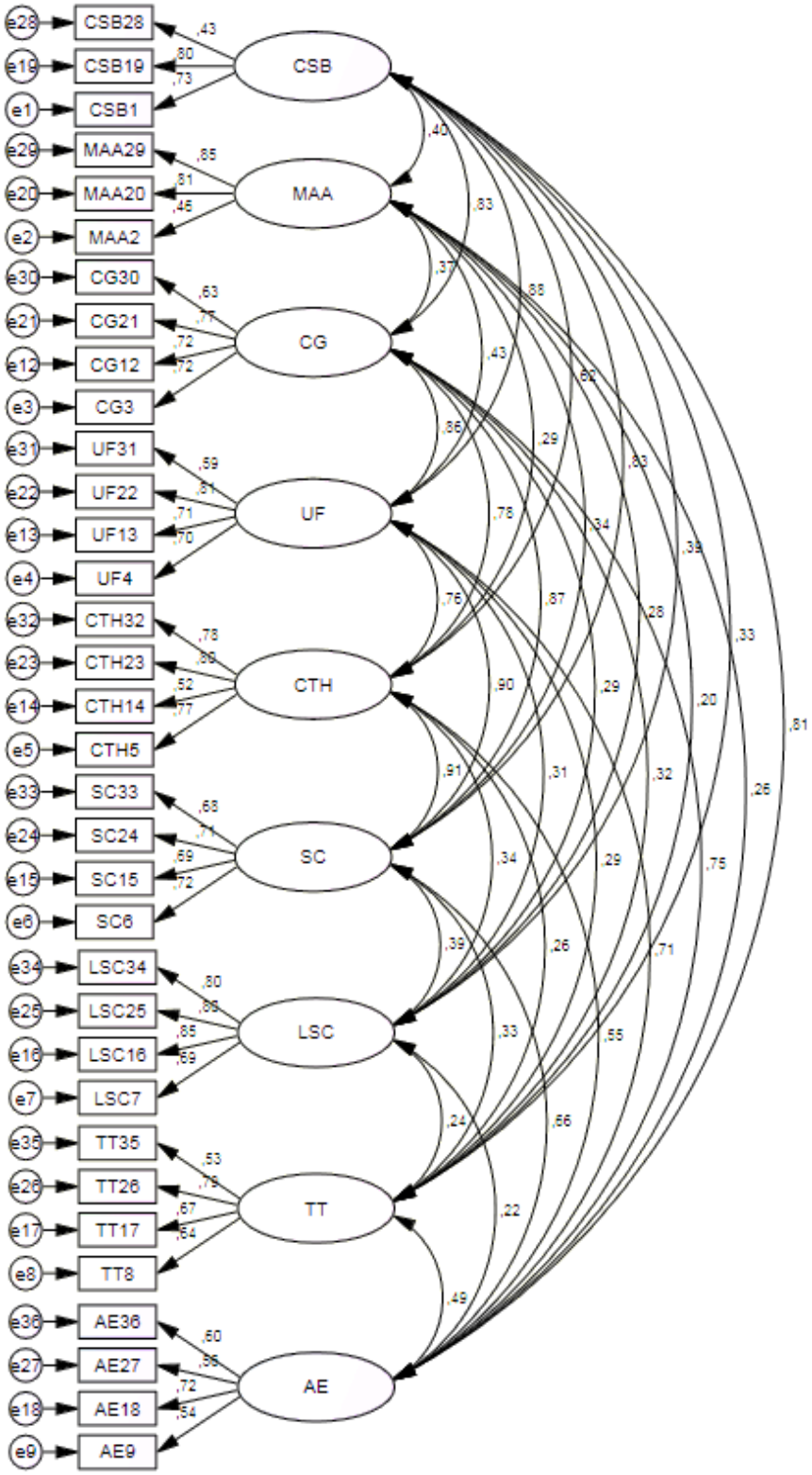


Figure C 1.6 Coefficients in Standardized Values for the Dispositional Flow



Appendix D: TURKISH SUMMARY

TÜRKÇE ÖZET

MÜKEMMELİYETÇİLİK VE BEDENLE İLGİLİ ALGILARIN EGZERSİZ ORTAMINDA SÜREKLİ OPTİMAL PERFORMANS DUYGU DURUMU ÜZERİNE DOĞRUDAN VE DOLAYLI ETKİLERİ

GİRİŞ

Psikolojinin son zamanlarda üzerinde durulan dallarından biri olan pozitif psikolojinin, araştırmacıların ilgisini insan varlığının pozitif özellikleri üzerinde çalışmak için değiştirdiği görülmektedir (Seligman ve Csíkszentmihályi, 2000). Pozitif psikoloji bireylerin subjektif deneyimlerine odaklanır. Bu deneyimleri; bireylerin geçmişe yönelik olumlu iyi oluş düzeylerine sahip olması; geleceğe yönelik olarak bireylerin iyimser ve umut içerisinde olmaları; içinde bulundukları an itibariyle ise optimal performans duygu durumu/akış (flow) ve mutluluk duygusunu hissetmeleri oluşturmaktadır (Seligman ve Csíkszentmihályi, 2000).

Pozitif psikolojinin önemli kavramlarından biri olan "akış" olarak adlandırılan subjektif deneyim, spor ve egzersiz psikolojisi çalışmalarında büyük ilgi görmektedir. Akış, zihin ve bedenin çaba harcamaksızın beraber çalıştığı, gerçekleştğinde kişide özel birşeyler olduğu hissini bırakan ahenkli subjektif bir deneyimdir (Csíkszentmihályi, 1990). Optimal

performans duygu durumu kavramı, kişinin yaptığı aktivite ile yetenekleri arasında bir uyumun olduğunu ifade eden, insanın yaptığı aktiviteye ancak tamamen dahil olduğu zaman hissettiği bütüncül bir his, ve keyifli bir durumdur (Csíkszentmihályi, 1990). Bu aktivitenin seçimi optimal performans duygu durumu deneyimini yaşayabilmenin en önemli unsurlarından biridir ve kişiden kişiye farklılık gösterebilir. Optimal performans duygu durumu deneyiminde kişinin yetenekleri ve aktivite birbirleri ile tam olarak uyumlu olduğu her an ve her yerde yaş sınırlaması olmaksızın bu psikolojik durum yaşanabilmektedir (Csíkszentmihályi ve Csíkszentmihályi, 1988).

Csíkszentmihályi ve Jackson sürekli optimal performans duygu durumu teorisine odaklanmış iki önemli araştırmacıdır. Her iki araştımacı da optimal performans duygu durumunu boyut olarak benzer kavramlarla isimlendirilen ortak özelliklerle tanımlamışlardır (Jackson ve Csíkszentmihályi, 1999). Optimal performans duygu durumu deneyiminin işleyişini anlamak için belirlenmiş olan boyutların ne ifade ettikleri bilmek oldukça önemlidir. Bu boyutlar görev zorluğu ve beceri dengesi, eylem farkındalık birleşimi, açık hedefler, belirli geri bildirim, göreve odaklanma, kontrol duygusu, kendi farkındalığının azalması, zamanın dönüşümü ve ototelik (içsel amaçlı) deneyiminden oluşmaktadır. Boyutlar kısaca açıklanacak olursa, görev zorluğu ve beceri dengesi sürekli optimal performans duygu durumu deneyiminin en önemli bileşenidir ve altın kural olarak bilinen bu boyut algılanan zorluğa karşılık olarak bireyin sahip olduğuna inandığı becerisinin dengesini ifade eder (Jackson ve Csíkszentmihályi, 1999). Eğer bireyin zihninde algıladığı beceri ve zorluk derecesi dengeli değilse, bu durum büyük bir olasılıkla optimal performans duygu durumunu engelleyecek ya da tamamen durduracaktır. Sonrasında ise birey hayal kırıklığına uğramış ve kaygılı bir hale gelecektir (Weinberg ve Gould, 2003). Eğer algılanan zorluk derecesi, kişinin sahip olduğu beceriden daha yüksek ise, kişi görevi zorlanmadan ve mahçup olmadan tamamlayamayacağı için kaygılı ya da üzgün hale gelecek, ya da görevi tamamlamayacaktır. Buna karşılık algılanan zorluk derecesi kişinin algıladığı beceriden düşük ise, kişi sıkıntı ya da duyarsızlık hissini

yaşayacaktır. Keyif alma ise sıkıntı ya da duyarsızlık hissi arasında bir yerde yer almaktadır ve bu noktada görev zorluğu derecesi ve kişinin sahip olduğu beceri tamamen dengelenmiş bir durumdadır (Csíkszentmihályi, 1990).

Eylem ve farkındalık birleşimi ise sadece birey tamamen tüm dikkatini yaptığı şeye verdiği zaman yaşanmaktadır. Bu noktada zihnin ve bedenin birleştiği yani bir olduğu görülür (Jackson ve Csíkszentmihályi, 1999). Hedeflere odaklanmak da sürekli optimal performans duygu durumunun ayrılmaz bir parçasıdır. Hedefler aktiviteye başlamadan önce belirlenmelidir, böylelikle yapılan aktivite deneyimlendikçe katılımcı tam anlamıyla ne yaptığını bilir (Jackson ve Csíkszentmihályi, 1999). Optimal performans duygu durumunu yaşarken, kişi açık ve belirli geri bildirimi çaba harcamadan alır. Bu yolla kişi farklı durumlara göre uyum sağlayabilir. Geribildirim, kişinin o an da deneyimlediği performansına dair bilgilenmesini sağlar. Bu sebeple hedefe odaklanmış bir şekilde aktiviyeti devam ettirebilmesi açısından açık ve belirli geri bildirim alması oldukça önemlidir (Jackson ve Csíkszentmihályi, 1999). Göreve odaklanma boyutu, optimal performans duygu durumunu açıklamakta en çok kullanılan tanımlarından birini ifade etmektedir. Kişi optimal performans duygu durumundayken, o anda içinde bulunduğu göreve tamamen ve amaçlı bir şekilde odaklanmış durumdadır; kişinin zihninde başka hiç bir düşünce bulunmamaktadır (Csíkszentmihályi, 1990; Jackson ve Eklund, 2004). Kontrol duygusu ise, kişiyi başarısızlık korkusundan uzaklaştırır ve aksine kişiye güçlü olma hissi yaratır. Başarısızlık korkusu optimal performans duygu durumu deneyimi boyunca hiç bir an yaşanmaz ve optimal performans duygu durumu kişinin karşısına çıkabilecek her türlü zorlukla baş edebilmesine olanak sağlar (Csíkszentmihályi, 1990; Jackson ve Csíkszentmihályi, 1999). Optimal performans duygu durumunun, kendilik farkındalığının olmadığı ve kişiyi zihnindeki sorulardan uzaklaştıran bir eylem olduğu düşünülebilir. Bireyin kendisininin nasıl göründüğüyle ya da diğer insanların kendisi ve görünüşü hakkında ne düşündüğüyle ilgilenmediği zaman kişide kendilik farkındalığının kaybolduğu görülebilir (Jackson ve Csíkszentmihályi, 1999; Jackson ve Eklund, 2004).

Bu optimal performans duygu durumu boyutu, kişilerin kendilerine dair güçlü ve pozitif bir algıya sagip olmalarına imkan verir ve kişişlerin kendilerinden şüphe duymalarını ortadan kaldırır (Jackson ve Csíkszentmihályi, 1999). Bu deneyim esnasında zaman algısının da değiştiği görülmektedir. Örneğin, optimal performans duygu durumu deneyiminin bazıları için zamanı durdurduğu; bazıları içinse zamanı yavaşlattığı görülür. Bazılarına göre ise de bu deneyim, zamanın beklenenden daha hızlı geçtiği hissini yaşatmaktadır (Jackson ve Eklund, 2004). Ototelik deneyim ise, diğer sekiz optimal performans duygu durumu boyutunun sonucu olarak tanımlanmış önemli bu deneyim için önemli bir boyuttur. Birey bu durumda, dışsal pekiştireçler peşinde olmayıp, yapmış olduğu aktiviteyi yalnızca aktiviteyi yapmak ve deneyimlemek amacıyla yapar hale gelir. Ototelik deneyim, daha sonraki aktiviteye katılımlar için kişiye yüksek bir motivasyon sağlamaktadır (Jackson ve Eklund, 2004).

Optimal performans duygu durumu durumu pozitif duygular, becerilerin gelişimi, kişisel gelişim, pozitif spor deneyimleri, performans gelişimi, artmış psikolojik olarak iyi olma hali ve anlamlı bir hayata erişmek gibi kavramlarla ilişkilendirilebilmektedir (Asakawa, 2004; Csíkszentmihályi, 1990; Jackson, 2000). Son yıllarda, optimal performans duygu durumu ile ilgli araştırmalar spor ve egzersiz psikolojisi alanında önem kazanmış ve araştırmacılar farklı örneklem gruplarında optimal performans duygu durumu deneyimini incelemişlerdir. Bu gruplar içerisinde elit sporcular (Gould, Ecklund, ve Jackson, 1992; Jackson, 1992a, 1992b, 1995, 1996; Jackson ve Roberts, 1992; Kowal ve Fortier,1999; Russell, 2001) ve elit olmayan (Catley ve Duda, 1997; Moreno, Cervelló, ve González-Cutre, 2008; Schüler ve Brunner, 2009; Jackson, Thomas, Marsh, ve Smethurst, 2001; Jackson, Kimiecik, Ford, ve Marsh, 1998; Stein, Kimiecik, Daniels, ve Jackson, 1995, Crust ve Swann, 2013). Deci ve Ryan (1985) sürekli optimal performans duygu durumu kavramının saf bir içsel motivasyon örneği olduğunu ileri sürmüşlerdir. Eğer bir insan aktivite esnasında birden fazla kez optimal performans duygu durumunu deneyimliyorsa, sonrasında bu aktivite kişinin kendisi için gerçekleştirdiği bir durum ve kişi için içsel bir

motivasyon haline gelecektir (Csíkszentmihályi, 1990). Özetle, optimal performans duygu durumu bireyin çaba harcamaksızın birşeyler yapmak için ihtiyaç duyabileceği dinamik bir içsel motivasyona neden olur.

Spor ve Egzersiz Ortamında Optimal Performans Duygu Durumu

Spor ortamında yapılan optimal performans duygu durumu ile ilgili çalışmalar, öncelikli olarak elit sporcuların atletik performansları esnasındaki deneyimledikleri optimal performans duygu durumlarının belirlenemesi ve tanımlanmasına odaklanmıştır (Jackson, 1995, 1996; Jackson ve Roberts, 1992). Jackson'ın (1992a, 1995) yaptığı nitel bir çalışmada sporcuların algıladıkları optimal performans duygu durumunun öncüllerini ve bu deneyimi etkileyen faktörleri incelemiştir. Optimal performans duygu durumunu yaşamak için gereken en önemli faktörler pozitif zihinsel tutum, pozitif yarışma öncesi ve yarışma anındaki duygu, uygun odaklanmayı sürdürme, fiziksel hazırbulunuşluk ve partneriyle uyum içinde olmayı içermektedir (Jackson, 1992a). Russel (2001) ise önceki nitel çalışmaların bir uzantısı olarak üniversite sporcularıyla bir çalışma yapmış, Csíkszentmihályi ve Jackson'ın üzerinde durduğu optimal performans duygu durumu boyutlarının bu çalışmada da benzer olduğu görülmektedir. Çalışmanın bir diğer önemli sonucu ise, optimal performans duygu durumunun cinsiyet ve spor türü açısından üniversite sporcularında bir faklılık göstermediğidir.

Jackson (1996) optimal performans duygu durumunu deneyimleyen sporcuların yaptıkları spora daha çok bağlılık gösterdiklerini, sporlarında daha azimli olduklarını ve böylelikle de optimal performans duygu durumunun sporu bırakma olasılıklarını düşürdüğünü ifade etmiştir. Jackson ve arkadaşlarının (1998) yaptığı diğer bir çalışmada ise sporcuların optimal performans duygu durumlarının ilişkili olduğu değişkenler araştırılmıştır ve sonuçlara göre algılanan spor yeteneği, içsel motivasyon ve optimal

performans duygu durumu arasında pozitif bir ilişki olduğu bulunmuştur. Jackson ve arkadaşları (2001) optimal performans duygu durumu, benlik kavramı, psikolojik beceriler ve performans arasındaki ilişkileri incelemiş ve optimal performans duygu durumunun benlik kavramı ve psikolojik becerilerle pozitif olarak ilişkili olduğu ortaya koymuştur. Diğer çalışmalarda (Young, 2000; Young ve Pain, 2005) ise, optimal performans duygu durumunu kolaylaştıran faktörler fiziksel ve zihinsel hazırlanma, pozitif duygu durumu, uyarılma kontrolü, motivasyon, odaklanma, konsantrasyon, durumsal/çevresel şartlar ve olumlu geri bildirim olarak ortaya konmuştur. Baker ve arkadaşlarının (2011) genç futbolcularla yaptığı çalışma, çevresel kaynaklar olarak ifade edilen performans geri bildiriminin ve antrenörden alınan desteğin futbol maçı esnasında optimal performans duygu durumunu kolaylaştırdığını göstermiştir. Swann ve arkadaşlarının (2012) elit sporcuların optimal performans duygu durumları ile ilgili yaptığı sistematik derleme çalışmasında optimal performans duygu durumunu kolaylaştıran faktörler uygun odaklanma, etkili hazırlanma (fiziksel, zihinsel ve yarışmaya yönelik), hazırbulunuşluk, optimal motivasyon, optimal uyarılma, pozitif düşünceler ve duygular, güven, optimal çevresel ve durumsal şartlar, pozitif içsel ya da dışsal geribildirim, iyi bir başlangıç, pozitif takım oyunu ve etkileşim olarak sıralanmıştır.

Jackson ve arkadaşlarının (1998) yaptığı çalışmada sürekli yarışma kaygısı ve optimal performans duygu durumu arasında negatif bir ilişki olduğu görülmüştür. Yüksek seviyede kaygı ya da üzüntü yaşayan sporcuların optimal performans duygu durumu boyutlarından olan kontrol duygusu, kendilik farkındalığının azalması ve göreve odaklanma boyutlarına ulaşamamadıkları ortaya konmuştur. Kaygı ve üzüntünün optimal performans duygu durumunu önlediği ve bu deneyimi bozduğu için optimal performans duygu durumunun zıttı olarak görüldüğü ifade edilmektedir (Jackson ve ark., 1998). Frederickson ve Roberts (1997) kadın bedeninin nesnelleştirilmesinin doruk motivasyonel durumu önlediği ya da kestiğini öne sürmüştür. Eğer bir kadın kendini dışardan birinin gözüyle değerlendirirse kendilik farkındalığında bir artış olacak, nasıl göründüğüne odaklanacak ve böylelikle

optimal performans duygu durumunu deneyimlemesi engellenmiş olacaktır. Swann ve arkadaşlarının (2012) yaptığı çalışmaya göre, optimal performans duygu durumunu önleyen faktörler olarak uygun olmayan odaklanma, optimal olmayan hazırlanma ve hazırbulunuşluk, motivastyon eksikliği, optimal olmayan uyarılma, olumsuz düşünceler ve duygular, güven eksikliği, olumsuz geribildirim, düşük performans, olumsuz takım oyunu ve etkileşim bulunmuştur.

Yapılan çalışmaların büyük bir çoğunluğu spor ortamında elit sporcularla yapılmıştır. Ancak, fiziksel aktivite ve egzersiz katılımcılarıyla yapılan kısıtlı sayıda çalışma olduğu görülmektedir. Csíkszentmihályi ve arkadaşlarına (2005) göre optimal performans duygu durumu, etkili motive eden bir güçtür ve optimal performans duygu durumu egzersiz ortamında keyifli bir duygu durumu yaşattığı için olması istenen bir sonuçtur. Fiziksel aktivitenin kendisi ototelik deneyim olarak bilinen içsel bir ödülmüş gibi deneyimlenirse, bu deneyim kişinin yapılan aktiviteye bağlılığını oluşturmak için önemli bir faktör halini alır. Petosa ve Holtz (2013) çalışmalarında genç yetişkinlerde fiziksel akitivte bağlılığını arttırmak için optimal performans duygu durumu teorisinin kullanışlı olduğunu ileri sürmüşlerdir. Optimal performans duygu durumu fiziksel aktivite ve egzersiz ortamında aktivite bağlılığını sürdürmek için oldukça önemli bir kavram olduğu düşünüldüğünde bu alanda daha çok araştırmanın gerekli olduğunu göstermektedir.

Fiziksel olarak gerektirdikleri açısından egzersizin sporla benzer özelliklere sahip olmadından dolayı optimal performans duygu durumunu etkileyen faktörlerle ilgili bulguların egzersiz ortamı için de geçerli olduğu düşünülmektedir. Ancak egzersiz ve fiziksel aktivite ortamında optimal performans duygu durumunu etkileyen faktörlerle ilgili yapılan spesifik çalışmaların olmadığı görülmektedir. Bu yüzden optimal performans duygu durumunu etkileyen faktörleri farklı açılardan araştırmak, optimal performans duygu durumunun egzersiz davranışının sürdürülmesine olan katkısını ve kişilerin düzenli egzersiz katılımından elde ettiği faydaları açıklayabilmek açısından daha iyi olacaktır. Bu

sebeple, bu çalışma egzersiz ortamında optimal performans duygu durumunu dogrudan ya da dolaylı olarak etkileyeceği varsayılan değişkenler üzerinde durmaktadır.

Bu çalışmaya, mükemmeliyetçiliğin optimal performans duygu durumunu etkileyebilecek faktörlerden biri olabileceği varsayılarak başlanmıştır. Bir kişilik özelliği olarak bilinen mükemmeliyetçilik kavramı insan hayatında olumlu ya da olumsuz bir güç olarak görülmektedir. Her ne kadar mükemmeliyetçiliğin belirlenmiş tek bir tanımlaması bulunmasa da, araştırmacıların mükemmliyetçilik kavramının merkezinde kusursuz bir performans arayışı olduğunda hem fikir olduğu görülmektedir (Flett ve Hewitt, 2002). Araştırmacılar sporcular arasında yüksek seviyede mükemmeliyetçiliğin çeşitli bilişsel, duyuşsal ve davranışsal olarak yarşma öncesi durumluk kaygı (Hall, Kerr ve Matthews, 1998), sürekli yarışma kaygısı (Frost ve Henderson, 1991), sosyal fizik kaygı (Hasse, Prapavessis ve Owens, 2002), sürekli yarışma öfkesi (Dunn, Gotwals, Causgrove Dunn ve Syrotuik, 2006), yeme bozukluğu (Hewitt, Flett ve Ediger, 1995) ve tükenmişlikle (Gould, Udry, Tuffey ve Loehr, 1996) ilişkili olduğu görülmüştür. Bunlardan başka, mükemmeliyetçiliğin egzersiz ortamındaki egzersizi takip etmede başarısızlık korkusu, egzersiz yapamama kaygısı, egzersiz yapamama kaygısı korkusu ve ayrıca fiziksel aktiviteden kaçınmayı yansıtan biliş ve davranış biçimleriyle ilgili olduğu söylenmektedir (Martin, Tipler, Marsh, Richard ve Williams, 2006).

Bu çalışma ile ilgili olarak, başarısızlık korkusu, hatalara aşırı duyarlılık, yüksek standartlar belirleme ve eleştirel değerlendirme (Flett ve Hewitt 2002; Frost, Marten, Lahart ve Rosenblate, 1990) gibi durumlar yüzünden özellikle başkaları tarafından belirlenmiş mükemmeliyetçiliğin, optimal performans duygu durumunu olumsuz olarak etkileyen bir faktör olabileceği düşünülmektedir. Buna karşın, hata yapma konusunda endişelenmeksizin kişilerin optimal performans duygu durumu boyunca yüksek seviyede kontrol duygusu yaşayabileceklerini (Schüler ve Bruner, 2009) özellikle kendine yönelik mükemmeliyetçiliğin optimal performans duygu durumunu olumlu olarak etkileyen bir

faktör olabileceği düşünülmektedir. Literatürde, egzersiz katılımcılarının bedenle ilgili algıları ve optimal performans duygu durumları arasındaki ilişkiyi açıklayan çok sınırlı çalışma vardır. İlgili olan çalışmalara göre, pek çok kişinin egzersiz esnasında başkalarına nasıl göründüğü hakkında endişe duymasından dolayı beden imgesinden hoşnut olma, sosyal fizik kaygı ve beden çekiciliğinin optimal performans duygu durumunu etkileyen faktörler olduğu görülmüştür (Crawford ve Eklund, 1994; Eklund ve Crawford, 1994; Lantz, Hardy ve Ainsworth, 1997).

Çalışmanın Amacı

Bu çalışmanın amacı, düzenli olarak egzersiz yapan kişilerin mükemmeliyetçilik, bedenle ilgili algıları ve optimum performans duygu durumları arasındaki ilişkiyi incelemetir. Bu ilişkiyi incelemek amacıyla bir model öne sürülmüş ve kenddine yönelik ve başkaları tarafından belirlenen mükemmeliyetçilik, algılanan vücut yağı, görünüm ve sosyal görünüş kaygısının optimal performans duygu durumu üzerindeki doğrudan ve dolaylı etkileri ortaya konmaya çalışılmıştır (Figür 1.1, sayfa 8).

Modelde, kendine yönelik mükemmeliyetçilik, başkaları tarafınca belirlenen mükemmeliyetçilik, algılanan vücut yağı, algılanan görünüm ve sosyal görünüş kaygısı optimal performans duygu durumunun yordayıcıları olarak önerilmiştir. Bu değişkenlerden sürekli optimal performans duygu durumu bağımlı değişken olarak belirlenirken, kendine yönelik ve başkaları tarafından belirlenmiş mükemmeliyetçilik algılanan vücut yağı, algılanan görünüm ve sosyal görünüş kaygısı ise hem bağımsız hem bağımlı değişkenler olarak belirlenmiştir. Bu bağlamla araştırmada yanıt aranan sorular aşağıdaki gibidir:

1- Kendine yönelik ve başkaları tarafınca belirlenen mükemmeliyetçilik, bedenle ilgili algılar ve sürekli optimal performans duygu durumları arasında cinsiyet açısından farklılık var mıdır?
2- Sürekli optimal performans duygu durumu; kendine yönelik ve başkaları tarafınca belirlenen mükemmeliyetçilik, algılanan vücut yağı, algılanan görünüm ve sosyal görünüş kaygısı tarafından ne ölçüde yordanmaktadır?
3- Algılanan vücut yağı, algılanan görünüm ve sosyal görünüş kaygısı kendine yönelik ve başkaları tarafınca belirlenen mükemmeliyetçilik tarafından ne ölçüde yordanmaktadır?

YÖNTEM

Bu çalışmaya 216'sı kadın ve 230'u erkek olmak üzere toplamda 446 egzersiz katılımcısı gönüllü olarak katılmıştır. Katılımcıların yaş ortalaması kadınlar için 26.85 (Ss = 6.60) ve erkekler için 24.40 (Ss = 5.93) olarak bulunmuştur ve katılımcıların yaş aralığı 17 ve 40 arasındadır. Araştırmada veri toplamak amacıyla 5 farklı ölçek kullanılmıştır, bunlar demografik bilgi formu, Çok Boyutlu Mükemmeliyetçilik ölçeği, Kendini Fiziksel Tanımlama Envanteri, Sosyal Görünüş Kaygısı, Sürekli Optimal Performans Duygu Durum ölçekleridir.

Çalışmada kullanılan demografik bilgi formu katılımcıların cinsiyet, yaş, egzersiz türü, ne kadar süredir düzenli olarak egzersiz yaptığı, haftada kaç gün ve kaç kez egzersiz yaptığına ilişkin soruları içermektedir.

Kendini Fiziksel Tanımlama Envanteri (Marsh ve ark., 1994), toplamda 70 maddeden ve fiziksel benlik kavramını ölçen 9 alt ölçekten oluşmaktadır. Ayrıca genel fiziksel benlik kavramı ve benlik saygısını ölçen 2 alt ölçek daha içermektdir. Bu alt ölçekler; algılanan sağlık, koordinasyon, fiziksel aktivite, vücut yağı, spor yeteneği, görünüm, kuvvet, esneklik, dayanıklılık, genel fiziksel yeterlik ve benlik saygısıdır. Bu çalışmada algılanan vücut yağı ve görünüm alt ölçekleri kullanılmıştır. Ölçeğin Türkçe geçerlik ve güvenirlik çalışması üniversite öğrencileriyle Marsh, Marco ve Aşçı (2002b) tarafından kültürler arası bir çalışmayla yapılmıştır ve 11 altölçeğin iç tutarlık katsayılarının .83 ve .93 arasında değiştiği görülmüştür. Bu çalışma için yapılan Bu çalışma için hesaplanan iç tutarlılık katsayısı vücut yağı algısı için .86 ve görünüm algısı için .76 olarak bulunmuştur.

Sosyal Görünüş Kaygısı Ölçeği (Hart ve ark., 2008) kişinin vücut biçimi dahil olmak üzere tüm görünümün başkaları tarafından olumsuz olarak değerlendirileceği ile ilgili kaygı düzeyini ölçmek amacıyla geliştirilmiştir. Ölçek 16 maddeden oluşan tek boyutlu bir yapı göstermektedir. Ölçeğin Türkçe geçerlik ve güvenirlik çalışması üniversite öğrencileriyle Doğan (2010) tarafından yapılmıştır. İç tutarlık katsayısı .93 ve 2 hafta arayla yapılan test tekrar test katsayısı .85 olarak bulunmuştur. Bu çalışma için iç tutarlık katsayısı .91 olarak bulunmuştur.

Çok Boyutlu Mükemmeliyetçilik Ölçeği (Hewitt ve Flett, 1991), kendine yönelik, başkalarına yönelik ve başkaları tarafından belirlenen mükemmeliyetçilik olmak üzere 3 farklı mükemmeliyetçilik boyutunu ölçen 45 maddeden oluşmaktadır. Ölçeğin Türkçe geçerlik ve güvenirlik çalışması Oral (1999) tarafından yapılmıştır. Orjinal ölçekten farklı olarak, kendine yönelik mükemmeliyetçilik boyutu 19 maddeden, başkalarına yönelik mükemmeliyetçilik boyutu için 14 maddeden, başkaları tarafından belirlenen mükemmeliyetçilik boyutu ise 10 maddeden oluşmuş ve ölçekten toplamda 2 madde çıkarılmıştır. İç tutarlık katsayıları kendine yönelik mükemmeliyetçilik için .91, başkalarına yönelik mükemmeliyetçilik için .73, başkaları tarafından belirlenen mükemmeliyetçilik içinse .80 olarak bulunmuştur. Bu çalışmada kendine yönelik ve başkaları tarafından belirlenen mükemmeliyetçilik boyutları kullanılmıştır. Bu çalışma için iç tutarlılık katsayıları ise kendine yönelik için .87 ve başkaları tarafından belirlenen için .74 olarak bulunmuştur.

Sürekli Optimal Performans Duygu Durum Ölçeği (Jackson ve Eklund, 2004), belirlenmiş bir aktiviteyle ilgili optimal performans duygu durumu deneyimini değerlendirmek için 36 madde ve 9 alt boyuttan oluşturulmuştur. Ölçeğin her bir alt boyutu 4 maddeden

oluşmaktadır bu boyutlar; görev zorluğu/ beceri dengesi, eylem farkındalık birleşimi, açık hedefler, belirli geri bildirim, göreve odaklanma, kontrol duygusu, kendilik farkındalığının azalması, zamanın dönüşümü ve ototelik (içsel amaçlı) deneyimdir. Ölçeğin Türkçe geçerlik ve güvenirlik çalışması Aşçı ve arkadaşları (2007) tarafından yapılmıştır ve 9 alt boyutun iç tutarlık katsayıları .49 ve .88 arasında değişiklik göstermektedir. Bu çalışma için ise alt boyutlar için iç tutarlık katsayıları .66 ve .87 arasında değişiklik göstermektedir. Çalışma için toplam ölçek puanı üzerinden hesaplamalar yapılmıştır ve toplam ölçek için iç tutarlık katsayısı .93 olarak bulunmuştur.

Verileri toplayabilmek için gerekli olan Üniversite İnsan Araştırmaları Etik Kurul izni alınmış ve veriler araştırmacı tarafından toplanmıştır. Ölçme araçlarını içeren form katılımcılara verilmeden önce çalışma ile ilgili bilgi verilmiş ve çalışmaya gönüllü olarak katılmaları sağlanmıştır. Ölçeklerin bulunduğu formun doldurulması yaklaşık olarak 15-20 dakika sürmüştür.

Bu çalışmada, öncelikle ön analizler (sayıltıların test edilmesi, betimleyici istatistik ve cinsiyet karşılaştırılması) için IBM SPSS Statistic 22.0 programı kullanılmıştır. Mükemmeliyetçilik ve bedenle ilgili algıların sürekli optimal performans duygu durumunu yordayıp yordamadığı ve bağımlı, bağımsız ve aracı değişkenler arasındaki ilişkiyi göstermek amacıyla yol (path) analizi uygulanmıştır. Bu analiz için AMOS 18 programı kullanılmıştır.

BULGULAR

Bu çalışmanın analiz kısmında ön analizler ve çalışmanın temel analizi olan yol analizi için gerekli sayıltılar test edilmiştir. İlk olarak, eksik veri analizi yapılmıştır ve cevaplanmayan maddelerin % 5 den oldukça düşük olduğu görülmüştür. Bu sebeple, eksik verilerin yerine maddelerin ortlama değeri konulmuştur (Kantardzic, 2003). Sonraki aşamada, aykırı verilerin tespit edilmesi için z değeri (> 3.29) ve Mahalanobis uzaklık kriterine göre değerlere bakılmıştır (Tabachnick ve Fidell, 2007). Değerlere göre, 3.29 dan büyük 12 z değeri olduğu görülmüştür. Mahalanobis uzaklık kriterine göre ise 34 aykırı değer örneklemden çıkarılmış ve çıkarılan verilerden sonra örneklem 446 katılımcıdan oluşmaktadır. Daha sonra, verilerin normal dağılım gösterip göstermediği test etkmek amacıyla Skewness ve Kurtosis değerlerine bakılmıştır ve değerlerin -1 ve 1 arasında değiştiği görülmüştür (Tablo 4.1).

Analiz öncesi bulgulara göre veri analizinin uygunluğu ortaya konulduğundan verilerin analizi için ilk olarak betimsel istatistik yöntemiyle değişkenlerin ortalamaları standart sapmaları hesaplanmıştır (Tablo 4.2). Daha sonra ise değişkenler arasındaki korelasyon hesaplanmıştır (Tablo 4.3). Bunun yanısıra, değişkenler arasında cinsiyet açısından bir fark olup olmadığını görmek için bağımsız t-testi yapılmıştır. Bulgulara göre, kendine yönelik (t = -3.51, p = .00) ve başkaları tarafından belirlenen (t = -4.49, p = .00) ve mükemmeliyetçilik, sürekli optimal performans duygu durumunun (t = -2.82, p = .01) cinsiyete göre anlamlı olarak farklılık gösterdiği görülmüş buna karşılık algılanan vücut yağı (t = -1.05, p = .29), görünüm (t = .87, p = .38) ve sosyal görünüm kaygısının (t = -1.34, p = .18) cinsiyete göre anlamlı bir farklılık göstermediği bulunmuştur. Özellikle çalışmada bağımlı değişken olarak belirlenen sürekli optimal performans duygu durumu

açısından kadın ve erkek katılımcılar arasında anlamlı bir fark bulunduğu için öne sürülen modelin kadın ve erkek örneklemleri için ayrı ayrı test edilmesinin daha doğru olacağı düşünülmüştür. Önerilen modelin test edilmesi ve modelin çalışma verilerine uygun olup olmadığını görebilmek için bazı uygunluk ölçütleri hesaplanmıştır (Tablo 4.4). Tüm istatistiksel uygunluk sonuçlarının anlamlı olduğu görülmüştür.

Önerilen modelde doğrudan ve dolaylı şekilde oluşturulan yolların anlamlı olup olmadığı standardize edilmiş beta yükleri ile elde edilmiş ve doğrudan ve dolaylı etkiler Tablo 4.5 ve Tablo 4.6'da gösterilmektedir. Ayrıca, Figür 4.1 (sayfa 78) ise önerilen modeldeki yolların beta yüklerini göstermektedir. Figürde anlamlı olan yollar siyahla gösterilirken anlamsız yollar ise kırmızı renkle gösterilmiştir. Daha önce de belirtildiği gibi, önerilen model kadın ve erkek egzersiz katılımcı örneklemi için ayrı ayrı test edilmiş ve kadın egzersiz katılımcılarına ait bulgular Tablo 4.7, Tablo 4.8 ve Tablo 4.9'da gösterilmiştir. Figür 4.2 (sayfa 84) modeldeki yolların beta yüklerini göstermektedir. Erkek egzersiz katılımcılarına ait bulgular ise Tablo 4.10, Tablo 4.11 ve Tablo 4.12'de gösterilmiştir. Figür 4.3 (sayfa 89) modeldeki yolların beta yüklerini göstermektedir.

Bu yolların yükleri incelendiğinde, sürekli optimal performans duygu durumunun algılanan görünüm tarafından doğrudan ve olumlu yönde yordandığı; sosyal görünüş kaygısı tarafından ise doğrudan ve olumsuz yönde yordandığı görülmektedir. Algılanan vücut yağının düşük seviyede olması ise, algılanan görünümü doğrudan ve olumlu yönde yordarken; sosyal görünüş kaygısını doğrudan ve olumsuz yönde yordamaktadır. Ayrıca algılanan vücut yağ algısının dolaylı yoldan sürekli optimal performans duygu durumunu yordadığı görülmektedir.

Kadın egzersiz katılımcıları için test edilen model için, sürekli optimal performans duygu durumunun algılanan görünüm tarafından doğrudan ve olumlu yönde yordandığı; sosyal görünüş kaygısı tarafından ise doğrudan ve olumsuz yönde yordandığı görülmüştür. Erkek

egzersiz katılımcıları için test edilen modelde ise kadın katılımcılarınkinden farklı olarak sosyal görünüş kaygısının sürekli optimal performans duygu durumu üzerinde anlamlı ve doğrudan bir etkisinin olmadığı görülmüştür. Algılanan vücut yağının düşük seviyede olması ise, kadın ve erkek katılımcı örneklemlerinde algılanan görünümü doğrudan ve olumlu yönde yordarken; sosyal görünüş kaygısını doğrudan ve olumsuz yönde yordamaktadır.

Kendine yönelik mükemmeliyetçilik, düşük vücut yağ algısını, algılanan görünümü ve sürekli optimal performans duygu durumunu doğrudan olumlu olarak yordarken, sosyal görünüş kaygısını doğrudan olumsuz olarak yordamaktadır. Ayrıca, algılanan vücut yağının, görünüm ve sosyal görünüş kaygısı dogrudan, sürekli optimal performans duygu durumunu ise dolaylı olarak olarak yordağı görülmektedir. Kadın egzersiz katılımcıları için test edilen model bulgularına göre; kendine yönelik mükemmeliyetçilik düşük yağ algısını ve algılanan görünümü doğrudan olumlu olarak yordarken, sosyal görünüş kaygısını ise doğrudan ve olumsuz olarak yordamaktadır. Bunlara karşılık, kendine yönelik mükemmeliyetçiliğin sürekli optimal performans duygu durumunu anlamlı olarak yordamadığı görülmüştür. Erkek egzersiz katılımcıları için test edilen modelde ise, kadın katılımcılarınkinden farklı olarak kendine yönelik mükemmeliyetçiliğin algılanan vücut yağı ve sosyal görünüş kaygısı üzerinde anlamlı bir etkiye sahip olmadığı görülürken, algılanan görünüm ve sürekli optimal performans duygu durumunu doğrudan ve olumlu olarak yordadığı görülmektedir.

Başkaları tarafından belirlenen mükemmeliyetçilik ise görünüm algısını doğrudan olumsuz olarak yordarken, sosyal görünüş kaygısını doğrudan ve olumlu olarak yordamaktadır. Öne sürülen hipotezin aksine başkaları tarafından belirlenen mükemmeliyetçiliğin algılanan vücut yağını ve sürekli optimal performans duygu durumunu anlamlı bir şekilde yordamadığı görülmüştür. Kadın egzersiz katılımcıları için, başkaları tarafından belirlenen mükemmeliyetçiliğin algılanan vücut yağını doğrudan ve

olumsuz olarak yordadığı görülürken; sosyal görünüş kaygısını doğrudan ve olumlu olarak yordadığı görülmektedir. Buna karşın, öne sürülen hipotezin aksine başkaları tarafından belirlenen mükemmeliyetçiliğin algılanan görünüm ve sürekli optimal performans duygu durumu anlamlı olarak yordamadığı görülmektedir. Erkekler içinse; başkaları tarafından belirlenen mükemmeliyetçiliğin sosyal görünüş kaygısını doğrudan ve olumlu şekilde yordadığı görülürken, algılanan vücut yağı, görünüm ve sürekli optimal performans duygu durumu anlamlı bir şekilde yordamadığı görülmektedir. Ayrıca, algılanan vücut yağı, kendine yönelik ve başkaları tarafından belirlenen mükemmeliyetçilik algılanan görünümdeki toplam varyansın % 21'ini; algılanan vücut yağı, kendine yönelik ve başkaları tarafından belirlenen mükemmeliyetçilik sosyal görünüş kaygısındaki toplam varyansın % 10'unu; algılanan görünüm, sosyal görünüş kaygısı ve kendine yönelik mükemmeliyetçilik ise sürekli optimal performans duygu durumundaki toplam varyansın % 21'ini açıklamıştır.

Çalışmada kullanılan değişkenler göz önünde bulundurulduğunda, öne sürülen ve ilk kez test edilen bu modelin bir ön çalışma niteliği taşıdığı söylenmelidir. Bu sebeple, analizler sonucunda önerilen modeldeki anlamsız bulunan yollar modelden silinmemiş ve bu çalışma dahilinde yeniden test edilmemiştir.

TARTIŞMA

Bu çalışmanın amacı egzersiz katılımcılarının mükemmeliyetçilik ve bedenle ilgili algılarının, sürekli optimal performans duygu durumunu üzerindeki doğrudan ve dolaylı etkilerini incelemektir. Araştırmadan elde edilen bulgulara göre, algılanan görünüm, sosyal görünüş kaygısı ve kendine yönelik mükemmeliyetçiliğin doğrudan sürekli optimal performans duygu durumunu yordadığı görülmektedir.

Bu çalışmada da, egzersiz katılımcılarının algıladıkları düşük vücut yağının görünüm algılarıyla doğrudan ve olumlu, sosyal görünüş kaygılarıyla ise doğrudan ve olumsuz olarak ilişkili olduğu görülmüştür. Araştırmalar, vücut yağı ve ağırlığı gibi belirli vücut komposizyonu değişkenlerinin görünüm kaygısıyla doğrudan ilişkili olduğunu (Dion, Dion ve Keelan, 1990; Hart, Leary ve Rejeski, 1989) ve yağ yüzdesi fazla olan kişilerin vücut biçimlerinden daha fazla memnuniyetsiz olduklarını göstermektedir (Roy, Hunter ve Blaudeau, 2006).

Araştırmadan elde edilen bulgulara bakıldığında, algılanan görünümün doğrudan ve olumlu, sosyal görünüş kaygısını ise doğrudan ve olumsuz olarak sürekli optimal performans duygu durumunu yordadığı görülmektedir. Tiggemann ve Slater (2001) kişinin sürekli olarak dış görünümünü değerlendirmesinin içsel beden deneyimi ile ilgili uygun algısal kaynakların azalmasına ve içsel olarak kişinin bedenle ilgili farkındalığını azalttığını öne sürmüşlerdir. Ayrıca kişinin kendisi hakkında her hangi bir kaygı ya da üzüntü duymasının olumlu duygu durumunu deneyimleme olasılığını azaltabildiği öne sürülmektedir (Jackson ve Csíkszentmihályi, 1999). Böylelikle görünüme odaklanmanın kendilik farkındalığını arttırdığını ve bu durumun optimal performans duygu durumu

deneyimleme olasılığını düşürdüğü ifade edilmektedir. Kendilik farkındalığının azalması optimal performans duygu durumunun önemli bir boyutudur ve bunun tersine artması bu deneyimi olumsuz olarak etkileyecektir. Ayrıca Csíkszentmihályi (1990) kendilik farkındalığının kadınların optimal performans duygu durumunu yaşama fırsatlarını kısıtlağını ifade etmiştir. Araştırma bulguları kadın ve erkek egzersiz katılımcıları için ayrı ayrı incelendiğinde, pozitif görünüm algısının kadın ve erkek egzersiz katılımcıları için optimal performans duygu durumunu doğrudan ve olumlu şekilde etkileyen bir değişken olduğu ortaya çıkmıştır. Son yıllarda erkeklerin de kadınlar gibi beden görünümleriyle ilgili kaygılı hale gelmişlerdir (Frederick ve ark., 2007; Hildebrant, Langenbucher ve Schlundt, 2004). Bundan dolayı, erkek egzersiz katılımcılarının sosyal görünüş kaygı düzeyleri ve optimal performans duygu durumu arasında olumsuz bir ilişki olabileceği öne sürülmüştü. Ancak, hipotezin aksine, sosyal fizik kaygının kadın katılımcılar için anlamlı ve olumsuz bir bir yordayıcı olduğu görülürken, erkek katılımcılar için anlamlı bir yordayıcı olmadığı görülmektedir.

Algılanan düşük vücut yağı ve olumlu görünüm algısının kendine yönelik mükemmeliyetçilik tarafından doğrudan ve olumlu biçimde yordandığı görülmektedir. Kendine yönelik mükemmeliyetçiler, algılarına bağlı olarak, büyük bir olasılıkla bedenlerinin kusurlu olduğunu algılayabilirler (Hewitt, Flett ve Ediger, 1995). Kusursuz görünemeyeceklerini düşünen, fiziksel görünümleri hakkında endişelenen çoğu insanın kendine yönelik mükemmliyetçiliğin uyumsuz boyutunu deneyimlediği söylenebilirken, diğer insanlarınsa mükemmel görünmek için çaba harcamaları kendine yönelik mükemmeliyetçiliğin olumlu tarafını deneyimlediklerinin işareti olabilmektedir (Yang ve Stoeber, 2012). Ayrıca, bu çalışmada kendine yönelik mükemmeliyetçiliğin egzersiz katılımcılarının sosyal görünüş kaygılarını doğrudan ve olumsuz bir biçimde yordadığı da görülmüştür. Bu ilişkiyi ortaya koyan fazla çalışma olmamasına rağmen, Petherick (2002)' in yaptığı çalışmada kendine yönelik mükemmeliyetçilik ve sosyal fizik kaygı arasında anlamlı olmayan ancak pozitif bir ilişki olduğu görülmüştür.

Kendine yönelik mükemmeliyetçiliğin ise sürekli optimal performans duygu durumunu anlamlı ve olumlu bir şekilde yordadığı görülmüştür. Daha önce değinildiği üzere, kişinin farkındalık seviyesine göre mükemmeliyetçilik olumlu ya da olumsuz bir enerji olarak görülebilmektedir. Silverman (1999) mükemmeliyetçilerin, elverişli şartlar sağlandığında tamamen optimal performans duygu durumunu yaşayabileceklerini öne sürmüştür. Ayrıca mükemmeliyetçilik optimal performans duygu durumu gibi sıradışı yaratıcı bir başarıya yol açan bir ilham olarak görülmektedir. Bu çalışmanın da kendine yönelik mükemmeliyetçiliğin olumlu yönünü desteklediği görülmüştür.

Başkaları tarafından belirlenen mükemmeliyetçiliğin ise öne sürülen hipotezin aksine algılanan vücut yağını anlamlı bir şekilde yordamadığı görülmüştür. Çalışmalar başkalarınca belirlenen mükemmeliyetçiliğin dışarıya yönelen odak, yüksek dışsal güdülenme (Hewitt ve Flett, 1991), kişilerarası hassaslık ve olumsuz değerlendirilme korkusu (Flett, Hewitt ve DeRosa, 1996) ile ilişkili olduğunu göstermiştir. Başkaları tarafından belirlenen mükemmeliyetçiler gerçek dışı ideal vücut şekli standartlarına ulaşmaya çalıştıkları için bu standartlara ulaşılmadığında beden hoşnutsuzluğu deneyimlemektedirler. Bu yüzden, bu mükemmeliyetçiliğin algılanan vücut yağını anlamlı ve olumsuz bir şekilde yordayacağı ileri sürülmüştür. Bunun dışında, düşük seviyede de olsa, başkaları tarafından belirlenen mükemmeliyetçiliğin egzersiz katılımcılarının algıladıkları görünümlerini anlamlı ve olumsuz şekilde yordadığı görülmüştür.

Araştırmacılar, başkaları tarafından belirlenen mükemmeliyetçiliğin, fiziksel görünümün önemi, etkisi ve kişinin hayatında fiziksel görünümün ne anlama geldiği ile ilgili yüksek seviyede bozulmuş inançlarla ilişkili olduğu görülmüştür (Sherry ve ark., 2009). Ayrıca bu çalışmada, başkaları tarafından belirlenen mükemmeliyetçiliğin katılımcıların sosyal görünüş kaygılarını anlamlı ve olumlu bir şekilde yordadığı görülmüştür. Bu sonuç

uyumsuz mükemmeliyetçiliğin sosyal fizik kaygıyla ilişkili olduğunu desteklemektedir (Coen ve Ogles, 1993; Haase ve ark., 2002). Petherick (2002) de başkaları tarafından belirlenen mükemmeliyetçiliğin sosyal fizik kaygıyla olumlu olarak ilişkili olduğunu ortaya koymuştur.

Buna karşılık öne sürülen hipotezin aksine, başkaları tarafından belirlenen mükemmeliyetçiliğin egzersiz katlımcılarının sürekli optimal performans duygu durumunu anlamlı bir şekilde yordamadığı görülmüştür. Başkaları tarafından belirlenen mükemmeliyetçilik hatalarla aşırı ilgilenme, eylemlerinden şüphe duyma ve patolojik öz eleştirilerle (Hewitt ve Flett, 1991) ilgili olmasından dolayı, başkaları tarafından belirlenen mükemmeliyetçilik olumlu duyguları zayıflatan olumsuz bir potansiyel olarak görülmektedir. Olumsuz duyguları içeren başkaları tarafından belirlenen mükemmeliyetçiliğin, egzersiz esnasında deneyimlenen olumlu duygu durumunu anlamlı ve olumsuz bir şekilde yordayacağı ileri sürülmüş, ancak elde edilen bulgular bu hipotezi desteklememiştir.

Bu çalışmanın, egzersiz ortamında optimal performans duygu durumuna etki eden faktörleri inceleyen literatüre katkı sağladığı düşünülmektedir. Çalışma ayrıca, bedenle ilgili algılar ve sürekli optimal performans duygu durumu arasındaki ilişki açısından da önemli katkı sağladığı düşünülmektedir. Egzersiz katılımcıların bedenle ilgili olumlu algılarının sürekli optimal performans duygu durumunu etkileyebileceği ve bunun sonucunda ortaya çıkan egzersizden keyif almanın ise egzersiz davranışının sürdürülmesine yol açabileceği düşünülmektir. Bu sebeple, bireylerin fiziksel görünümlerine olan bakış açılarının değiştirilmeye ikna edilmesi ve egzersizi fiziksel görünümlerini geliştirmek için bir aracı olarak görmek yerine, egzersizin psikolojik faydalarını deneyimleyebilecekleri bir fırsat olarak görmelerini sağlamak gerekmektedir.

Bulguların literatüre katkılarının yanında bu çalışmanın sınırlılıkları araştırma sonuçlarını yorumlanırken ve genellenirken gözün önünde bulundurulmalıdır. Birinci olarak, araştırmanın ilişkisel nitelikte bir çalışma olmasından dolayı değişkenler arasındaki ilişki nedensel olarak tamamen açıklanamamıştır. İkinci olarak, sürekli optimal performans duygu durumu toplam puanı bu çalışmanın bağımlı değişkeni olarak belirlenmiştir. Optimal performans duygu durumunu deneyimi 9 alt boyuttan oluşmaktadır, bu sebeple, alt boyutlar arasındaki farkın kadın ve erkek katılımcılar açısından incelenmesinin daha ayrıntılı bilgi saylayabileceği düşünülmektedir. Son olarak, egzersiz ortamı heterojen bir evrene sahip olduğu için bu araştırmdan elde edilen bulgularla, çeşitli egzersiz türlerinde egzersiz yapan katılımcılar için bir genellemeye varmak mümkün olmamaktadır. Örneğin, vücut geliştirme, yüzme, dans, yoga ve pilates gibi egzersiz türlerinde kişinin bedenine odaklanması kişinin bedeniyle ilgili algılarınını etkileyebilmektedir. Egzersiz türüne bağlı olarak, ayrıca egzersiz ortamı (aynalar, grupla egzersiz yapmak, kıyafet) egzersiz yapan kişilerin fizik farkındalığını etkileyebilmektedir. Bu yüzden, egzersiz katılımcılarının deneyimleri ve algıları egzersiz türüne göre büyük farklılık gösterecektir. Bu çalışmada, farklı egzersiz türlerindeki katılımcıların örneklemlerinin eşit olmamasından dolayı egzersiz türünün katılımcıların deneyimlerini etkileyip etkilemediği incelenememiştir. Örneğin bu çalışmada, fitness diğer egzersiz türlerinden çok daha fazla katılımcı içermektedir. Gelecekte yapılcak çalışmalar için, mükemmeliyetçilik, bedenle ilgili algılar ve optimal performans duygu durumunun farklı egzersiz türleri açısından incelenmesinin gerektiği düşünülmektedir.

Appendix E: Curriculum Vitae

PERSONAL INFORMATION

Surname, Name: Erkmen, Gaye
Nationality: Turkish (TC)
Date and Place of Birth: 1982, Konya
email: gerkmen9@gmail.com

EDUCATION

Degree	Institution	Year of Graduation
MS	Selçuk University, School of Physical Education and Sport	2005
BS	Selçuk University, School of Physical Education and Sport	1996

WORK EXPERIENCE

Year	Place	Enrollment
2007- Present	Middle East Technical University, Department of Physical Education and Sport	Research Assistant
2006-2007	Selçuk University, School of Physical Education and Sport	Research Assistant
2005 - 2006	İmrenler Multi-Program High School	Physical Education Teacher

Appendix F: TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü	
Sosyal Bilimler Enstitüsü	X
Uygulamalı Matematik Enstitüsü	
Enformatik Enstitüsü	
Deniz Bilimleri Enstitüsü	

YAZARIN

Soyadı : ERKMEN
Adı : Gaye
Bölümü : Beden Eğitimi ve Spor

TEZİN ADI (İngilizce): The Direct and Indirect Effects of Perfectionism and Body Related Perceptions on Dispositional Flow in Exercise Setting

TEZİN TÜRÜ : Yüksek Lisans [ ] Doktora [X]

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. [X]
3. Tezimden bir (1) yıl süreyle fotokopi alınamaz. [X]

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: