The Mediator Role of Work-Related Need Satisfaction between Subjective Well-Being and Work Engagement of Teachers

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ABSTRACT

Teachers have a critical role in the fulfillment of educational objectives. One of the fundamental factors affecting teachers while doing their demanding job is their subjective well-being state. This study investigates the subjective well-being of high-school teachers in terms of work engagement and work-related need satisfaction. The mediator role of work-related need satisfaction between subjective well-being and work engagement was also investigated. The sample consisted of 250 teachers (n=131 males; 52.4%, n=119 females; 47.6%). Data collection tools included the Satisfaction with Life Scale (SWL), Positive and Negative Affect Scale (PANAS), Utrecht Work Engagement Scale (UWES), and Work-Related Basic Need Satisfaction Scale. In the analysis of the data, structural equation modeling method was employed. The results revealed that both work engagement and satisfaction of work-related needs positively contribute to teachers' subjective well-being. The mediator role of satisfaction of work-related needs between work engagement and teachers' subjective well-being was also observed. Based on these results, this study concludes with a few pedagogical implications considered important.

Keywords: Need satisfaction, subjective well-being, teachers, work engagement.

Öğretmenlerin Öznel İyi Oluşları ile İşe Bağlılıkları Arasındaki İlişkide İşle İlgili İhtiyaç Doyumunun Aracı Rolü

Öz

Öğretmenler, eğitim hedeflerinin gerçekleştirilmesinde kritik bir role sahiptir. Öğretmenleri, zorlu işlerini yaparken etkileyen temel faktörlerden biri öznel iyi oluş durumudur. Bu çalışma, lise öğretmenlerinin öznel iyi oluşunu işe bağlılık ve işle ilgili ihtiyaç tatmini açısından incelemektedir. Öznel iyi oluş ile işe bağlılık arasındaki işle ilgili ihtiyaç tatmininin aracı rolü de araştırıldı. Örneklem 250 öğretmenden (n = 131 erkek;%52,4, n = 119 kadın;%47,6) oluşmaktadır. Veri toplama araçları, Yaşamdan Memnuniyet Ölçeği (SWL), Olumlu ve Olumsuz Duygulanım Ölçeği (PANAS), Utrecht İş Bağlılığı Ölçeği (UWES) ve İşle İlgili Temel İhtiyaç Memnuniyeti Ölçeğini içermektedir. Verilerin analizinde yapısal eşitlik modelleme yöntemi kullanılmıştır. Sonuçlar hem işe bağlılığın hem de işle ilgili ihtiyaçların tatmininin öğretmenlerin öznel iyi oluşuna olumlu katkıda bulunduğunu ortaya koymuştur. İşe bağlılık ile öğretmenlerin öznel iyi oluşları arasındaki işle ilgili ihtiyaçların tatmininin aracı rolü de gözlemlenmiştir. Bu sonuçlara dayanarak, mevcut çalışma, önemli olduğu düşünülen birkaç pedagojik çıkarımda bulunmaktadır.

Anahtar kelimeler: İhtiyaç doyumu, öznel iyi oluş, iş tatmini.

1 | INTRODUCTION

Various factors are affecting the quality of education and students' success. Teachers, being one of the main parties in the educational context, directly affect achieving educational goals and objectives and they are considered as the most influential factor (Eryılmaz & Basal, 2021; Hattie, 2003). Teachers' efficacy depends on many factors such as their well-being, work engagement, and work satisfaction, etc. Teaching is one of the most emotional occupations and it has many challenges which yield high stress, burnout, and negative well-being. Maintaining effectiveness in such a stressful occupation (Johnson et al., 2005) is not easy for teachers. As is the focus of this study, subjective well-being has attracted mounting attention in recent times. It is a vital issue in teaching because it can change the educational environment along with all its parties such as students, teachers, school administration, parents, etc.

Subjective well-being contributes positively to individuals' productivity and their working to their full capacity (Bakker, 2009; Fisher, 2003; Maslach et al., 2001) and is essential at work since many people spend one-third of their life in the workplace. Regarding the educational environment and subjective well-being, it seems that there is a close relationship between students' and teachers' subjective well-being. Students need teachers with higher subjective well-being to guide them in their learning and development. A lack of subjective well-being could negatively influence the student's well-being (Harding et al., 2019). Teachers with more positive well-being contribute to their student's academic achievement (Caprara et al., 2006). Yet, it is not easy to achieve positive well-being since teachers have the demanding task of addressing students' various learning needs, which yields high stress. Their mental health is of utmost importance to fulfill their jobs (Gray et al., 2017). However, for a teacher to function as a supportive teacher, his/her subjective well-being becomes to the fore. To fully accomplish such a vital role, teachers should have higher subjective well-being (Evers et al., 2004). This indicates a need for studies to understand the motives that can lead teachers to a more positive subjective well-being in their occupational life.

Subjective well-being, investigated by a growing body of literature, refers to evaluating and judging individuals' affection and life (Diener, 1984) and composes of three dimensions: positive affection, negative affection, and (Myers & Diener, 1995). Individuals with high subjective well-being frequently experience positive emotions and rarely experience negative ones, and are more satisfied with their lives (Diener, 1984). Studies investigating teachers' subjective well-being in their occupational life can be subsumed under two broad categories: pathology-oriented and positive-oriented. Pathology-oriented studies have investigated the subjective well-being of teachers in terms of various indicators such as stress (Ben-Ari et al., 2003; Richards, 2012), burnout (Burke, & Greenglass, 1995; Chan, 2011), and workload (Yin et al., 2016). On the other hand, positive-oriented studies examined the issues concerning indicators such as job satisfaction, work engagement, and organizational commitment (Chan, 2013; Hakanen et al., 2005; Meriläinen & Pietarinen, 2007; Scott & Dinham, 2003). These studies focusing on the relationship between teacher's well-being and other factors have reported that teachers with positive well-being are satisfied with their life and health and commit themselves to school more (Kern et al., 2014).

NEED SATISFACTION AND SUBJECTIVE WELL-BEING

The expectations from teachers have always been high in teaching environments. As is well-known, teachers are of the most important factor when it comes to student and school success. They have a key role in addressing the learning needs of students and engaging them. To achieve this role, engagement of the teachers is also important. When teachers are engaged in their job, they may increase their students' positive academic attitudes and satisfaction and support their autonomy (Klem & Connell, 2004). Considering the heavy responsibilities of the teachers, their subjective well-being has become a crucial factor that has direct influence on their job performance. Therefore, it is important to focus on the subjective well-being of the teachers in their working environment.

Various factors have been associated with the subjective well-being of individuals including need satisfaction. According to self-determination theory humans need to satisfy three essential psychological needs: autonomy, relatedness, and competence (Baard et al., 2004). The need for autonomy involves the desire of organizing one's behaviors and experiences by themselves. The satisfaction of the need for autonomy involves making decisions and implementing them freely. The satisfaction of the need for autonomy in a work setting involves taking initiative for a given task, feeling free in how to do it, and achieving adequate independence to make decisions related to work (Deci & Ryan, 2000). The need for relatedness refers to connecting oneself to other people and the desire to establish healthy relationships with them. The satisfaction of the need for relatedness in a work setting involves establishing intimate, healthy, satisfactory, and mutual trust-based relationships with those in the workplace (Deci & Ryan, 2000; Ryan, 1995). Failure of satisfaction of the need for relatedness could result in alienation and loneliness in the workplace on the part of the individual (Wright et al., 2006). Finally, the need for competence is about achieving the desired outcomes and challenging to feel optimally competent. The satisfaction need for competence in the work setting involves feeling competent at work, fulfilling a duty successfully, and having high levels of work-related self-confidence (Ryan, 1995).

Satisfaction need for relatedness, autonomy, and competence is a basic human feature that can be observed universally. Studies have shown that satisfying these needs is critical for the effective functioning and mental health of the individual (Deci et al., 2001; Ryan et al., 1996). Furthermore, the satisfaction of these needs contributes to increasing the subjective well-being of the individual (Gagné & Deci, 2005; Ryan & Deci, 2008; Vansteenkiste et al., 2008). However, studies on the relationship between need satisfaction and subjective well-being in teachers is lacking, particularly in Turkey.

WORK ENGAGEMENT AND SUBJECTIVE WELL-BEING

Pathology-oriented studies generally focus on teachers' stress and burnout in their working environment. These are two important factors that negatively affect teachers' well-being in the profession (Viac & Fraser, 2020). On the other hand, positive psychology-oriented studies generally focus on increasing positive emotions and life satisfaction and decreasing negative emotions of the teachers. It is crucial to determine what negatively affects teachers in their profession and put forward solutions to them. In this respect, subjective well-being of the teachers can act as protective response to eliminate these factors and may contribute to the engagement of the teachers in their jobs.

Work engagement refers to "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Vigour is related to high levels of energy while working and keeping perseverance in the face of difficulties. At the same time, dedication refers to committing oneself to work, thanks to which the individual develops a sense of significance and enthusiasm. With dedication, individuals find their work significant and meaningful. Absorption is being completely focused and happily immersed in work; that is, people devote their entire attention to their work (Bakker, 2009; Schaufeli & Bakker, 2010). Work engagement is known to yield some very positive consequences. For instance, individuals with higher work engagement levels are found more productive and are also known for higher levels of work performance (Bakker, 2009; Demerouti & Cropanzano, 2010). Subjective well-being is associated with general satisfaction with life and the experience of positive affections more often and negative ones less often (Diener, 1984) while work engagement accounts for the domain-specific subjective well-being of the individual at work (Bakker & Leiter, 2010; Bakker et al., 2008). As a result, the relationship between general and domain-specific subjective well-being must be explained (Hakanen & Schaufeli, 2012), particularly in the case of teachers.

NEED SATISFACTION AND WORK ENGAGEMENT

According to self-determination theory, satisfying the needs of the individuals results in the psychological development, motivation and attachment to life (Deci & Ryan,1991). From humanistic perspective, satisfying the needs of the individuals contributes to self-actualization. Need satisfaction is important for people from

all walks of life including the students and teachers. When evaluated from the perspective of life-span developmental approach, development process of people extends from birth to death (Eryılmaz, 2011). Studies generally focus on students' need satisfaction and there is a need to investigate teachers' need satisfaction and work engagement.

Satisfying the needs helps individuals function optimally in their lives (Reis et al., 2000). There appear to be three spatial contexts people spend their lives: indoors life, outdoors life, and work life. The workplace is an essential context for individuals to meet their needs and get satisfaction. If individuals are satisfied in their workplaces, this leads to positive well-being, increased work engagement, and production. In earlier studies, it was also highlighted that satisfying work-related needs helps individuals function more productively in their work-life (Gagné & Deci, 2005; Markland & Tobin, 2010; Van den Broeck et al., 2008). It also contributes positively to the subjective well-being of individuals and their psychological functioning (Baard et al., 2004; Deci & Ryan, 2000; Gagné & Deci, 2005). A strong relationship between subjective well-being, productivity, and optimal functioning of individuals exists (Myers & Diener, 1995).

It is essential that teachers' functioning and productivity be enhanced by increasing their subjective well-being levels (Meriläinen & Pietarinen, 2007) in consideration of both teaching and learning processes. Academic achievement levels and the sense of competence of students are closely related to teachers' increased subjective well-being (Scott & Dinham, 2003). Recently, scientific studies have mainly focused on how to increase the subjective well-being of the students in the school (Coleman, 2009; Eryılmaz, 2012; Murray-Harvey, 2010). However, improving teachers' subjective well-being who have a crucial role in learning should be investigated (Soini et al., 2010). The present study investigates the subjective well-being of teachers considering two of the positive indicators: work engagement and work-related need satisfaction. Due to the lack of studies on teachers from Eastern Europe, the current study seeks to obtain data on a sample of teachers from Turkey.

Building upon the above arguments, the following hypotheses are proposed:

a) Work engagement has a positive effect on the subjective well-being of high school teachers.

b) Satisfaction of work-related needs has a positive effect on the subjective well-being of high school teachers

c) Satisfaction of work-related needs has a significant mediator effect on the relation between subjective well-being and work engagement.

2 | Method

RESEARCH DESIGN AND PROCEDURE

The present study investigates the subjective well-being of high-school teachers in terms of work engagement and work-related need satisfaction along with the mediator role that work-related need satisfaction serves between subjective well-being and work engagement. A cross-sectional research pattern was adopted accordingly, and the hypothetical model shown in Figure 1 was developed.
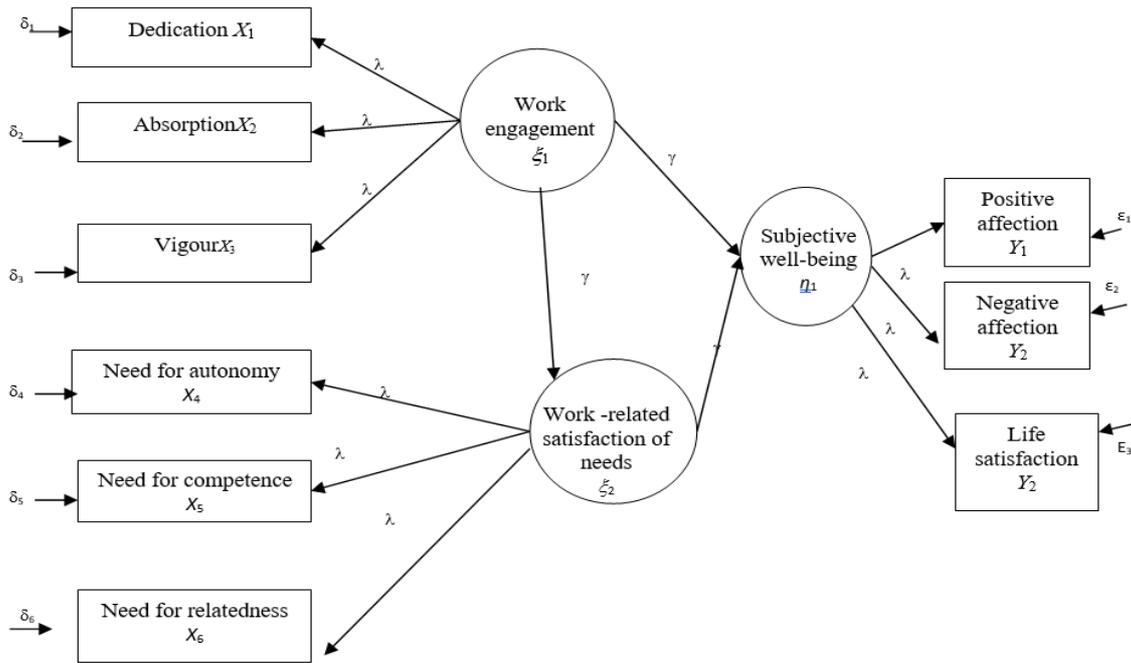
Figure1. *Hypothetical Model*

Purposive sampling technique was employed for the participant selection in the study. Only those who met three pre-set criteria were included. These criteria are theoretical knowledge, knowledge of the researcher, and the general purpose of the study (Fraenkel & Wallen, 1993). The sample size is crucial for achieving consistency between the theoretical model and the data obtained by structural equation modeling (Kline, 1998). This study followed Kline's (1998) suggestions in determining the sample size; that is, the sample size should be big enough for the model to yield good results. The optimal number for a sufficiently large sample is acknowledged to vary between 100 and 200 individuals. In the implementation of the scales as data collection instruments, the necessary information was given to the participants, and the objectives were explained. The study was conducted with the voluntary contribution of teachers.

THE STUDY GROUP

The sample of the present study consists of 140 male (51.9 %) and 130 (48.1%) female teachers, aged between 26 and 58, who work in various state high schools in Ankara, Turkey. After the initial analysis was carried out, 20 teachers were excluded from the data set because they either missed the majority of the items (at least 5%) or made central tendency errors. The sample comprises 250 teachers (131 males; 52.4%, 119 females; 47.6%). The distribution of the teachers according to their academic fields was as follows: 45 English (18%), 43 Turkish literature (%17.2), 43 mathematics (%17.2), 42 biology (16.8%), 40 history (16%), and 37 physics teachers (14.8%).

DATA COLLECTION TOOLS

A demographic information form and four scales were used in the data collection process. The demographic information form was used for identifying the participants' demographic features such as age, gender, and branch of the teachers. As four scales Satisfaction with Life Scale (SWL), Positive and Negative Affect Scale (PANAS), Utrecht Work Engagement Scale (UWES), and The Scale of Work-Related Basic Need Satisfaction were used.

Designed by Diener et al. (1985), Satisfaction with Life Scale (SWL) assesses subjective life satisfaction as a whole independent of specific domains. Adapted to Turkish by Yetim (1993), the 7-point Likert scale has five items. The items are: "In most ways, my life is close to my idea"; "The conditions of my life are excellent"; "I am satisfied with my life"; "So far I have gotten the important things I want in my life"; and "If I could live my

life over, I would change almost nothing." The Cronbach's alpha for internal consistency of the scale was 0.87 with a test-retest correlation of 0.82. (Diener et al., 1985).

Developed by Watson et al. (1988), Positive and Negative Affect Scale (PANAS) consists of 20 items accompanied by ten positive (i.e., interested, inspired, enthusiastic, and alert) and ten negative affections (i.e., scared, nervous, distressed, irritable). Participants rated these mood adjectives on a five-point scale. The options to choose are "very slightly or not at all", "a little", "moderately", "quite a bit", and "extremely". It was later adapted to Turkish by Gençöz (2000).

Developed by Schaufeli et al. (2002), Utrecht Work Engagement Scale (UWES) has 3 subdimensions; vigor, dedication, and absorption. There are two forms of this scale, with the long one having 17 items and the short one having 10. Psychometric properties of short-form were determined based on the data collected from 10 different countries. The present study opted to use the short form of this scale adapted to Turkish by Eryılmaz and Doğan (2012). The explanatory and confirmatory factor analyses, as well as reliability and validity analyses, were performed.

Lastly, developed by Van den Broeck et al. (2010), the Scale of Work-Related Basic Need Satisfaction was used. This 5-point Likert scale consisted of 18 items with three sub-dimensions: competence, relatedness, and autonomy. Adapted to Turkish by Doğan and Eryılmaz (2012), the descriptive and confirmatory factor analyses, along with reliability and validity analyses of the scale, were performed. The reliability and validity of this scale and other scales used in this study were found sufficiently acceptable.

3 | FINDINGS

Descriptive statistics relating to variables were computed for this study. The mean and standard deviation levels is presented in Table 1.

Table 1. Descriptive statistics

Variables	$\overline{\mathrm{X}}$	Sd
Need for autonomy	16,59	3,80
Need for competence	27,71	4,47
Need for relatedness	22,52	4,19
Vigour	10,81	2,71
Dedication	11,44	2,72
Absorption	10,80	2,62
Positive emotion	33,07	6,08
Negative emotion	21,03	6,08
Life satisfaction	21,50	6,02

The results of observed and latent variables regarding the participants' subjective well-being model are presented in Figure 2. Additionally, this structural equation model's fit index values have been presented in Table 2 (CFI, NNFI, IFI, RFI, GFI, AGFI, RMSEA, $\chi 2$ and the value of $\chi 2$/df were computed). The fit index values were CFI = 0.97, IFI = 0.97, NFI = 0.95, NNFI = 0.95, RFI = 0.93, GFI = 0.96, AGFI = 0.92, RMSEA = 0.073, $\chi 2$/df = 2.70. Based upon the values, this theoretical model seems to be consistent with the data obtained (Kline, 1998).
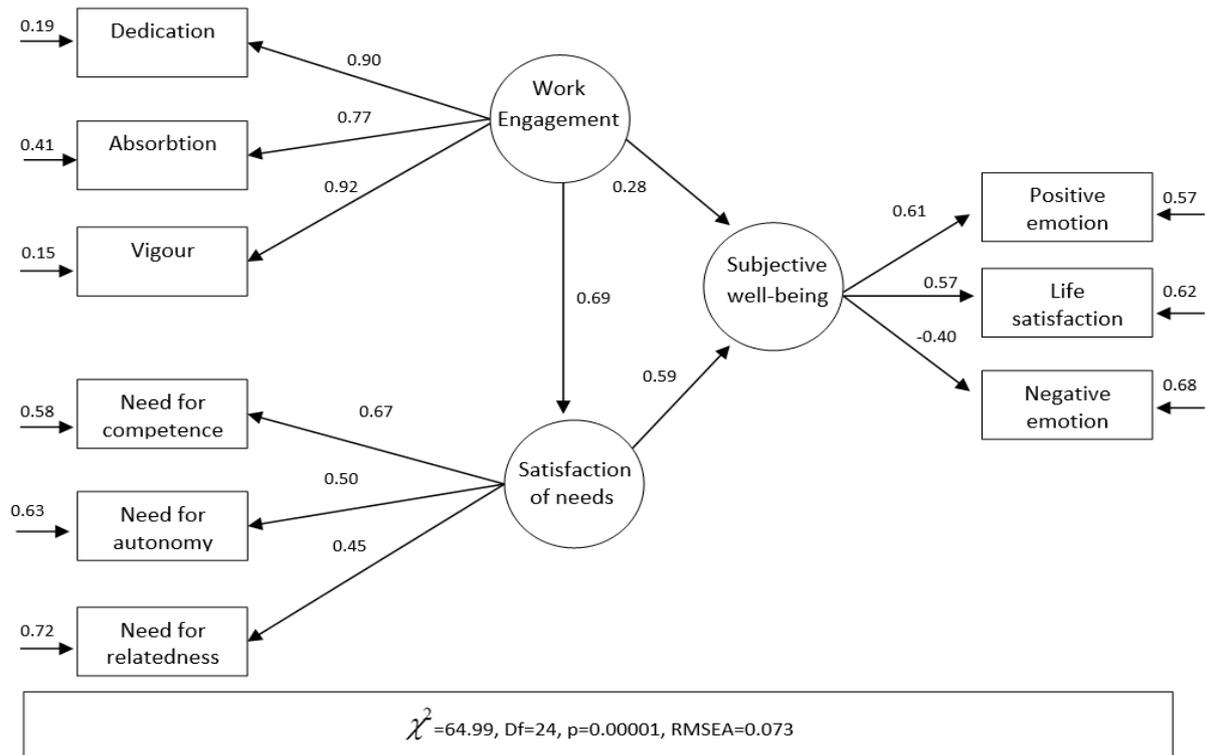
Figure 2. *Structural Model*

Table 2. Fit Indexes

Indexes	Values
GFI	0.96
AGFI	0.92
CFI	0.97
IFI	0.97
NFI	0.95
NNFI	0.95
RFI	0.93
RMSEA	0.073
Df	24
x^2	64.99
x^2/Df	2.70

The effects of the need satisfaction and work engagement on the subjective well-being of teachers have been calculated by means of standard coefficients. The effect size is accepted as small when the coefficients are smaller than 0.10, moderate when between 0.11-0.30, and big when bigger than 0.30 (Kline, 1998). According to these assumptions, teachers' subjective well-being increases 0.59 with a one-unit increase in need satisfaction. Another finding of the study is that an increase of one unit in the observed variable, namely work engagement, increases teachers' subjective well-being by 0.28. The mediator variable, need satisfaction contributes highly to the relationship between subjective well-being and work engagement (0.41). As a result, high-school teachers combine their work engagement with need satisfaction, which is a combination that increases the subjective well-being levels of teachers.

Table 3. Evaluations of Model

Variables	Coefficients	Effect size
Direct effect of work engagement	0.28	Moderate
Direct effect of work-related need satisfaction	0.59	High
Mediator effect of work-related need satisfaction	0.41	High
Total effect of work engagement	0.69	High

For Kline (1998), we are more likely to attain appropriate models as we develop alternative models. Therefore, the present study seeks to analyze the mediator role of work engagement concerning the relationship between teachers' subjective well-being and need satisfaction. An alternative model was tested for this purpose but failed to work. In conclusion, all the proposed hypotheses of the study were confirmed: work engagement increases the subjective well-being of high school teachers and satisfaction of work-related needs increases directly and indirectly the subjective well-being of high school teachers.

4 | DISCUSSION AND CONCLUSION

The study revealed that teachers' subjective well-being increases in line with an increase in their work engagement levels. Hakanen and Schaufeli (2012) suggested that the relationship between general and domain-specific subjective well-being should be investigated. This study contributes to existing knowledge by investigating the relationship between teachers' general and domain-specific subjective well-being. Some researchers have found that individuals having positive work engagement tend to develop positive attitudes towards their work. Moreover, these individuals experience a sense of mastery, recognition, and achievement through work engagement. However, they cannot simply be considered workaholics, since they can get engaged in activities that could enable them to have positive affections outside the work setting (Bakker, 2009; Schaufeli et al., 2006). It was observed that teachers' subjective well-being might have increased due to the positive consequences of their work engagement.

The present study found that need satisfaction has both direct and mediator effects upon teachers' subjective well-being. In addition, need satisfaction is the most powerful variable that affects the subjective well-being of teachers. In some of the studies conducted on different samples and contexts, it was found that general need satisfaction is a significant mediator (Eryılmaz, 2012; Eryılmaz & Doğan, 2013; Ivancevich & Matteson, 1999; Sheldon, & Elliot, 1999). Similarly, some other studies have also revealed that general need satisfaction is a significant mediator in educational settings. For instance, Hui et al. (2011) determined the mediator role of need satisfaction between student motivation and teacher support, and Faye and Sharpe (2008) found this role in academic motivation and identity formation. The current study differs from the other studies, in that, it focuses on the mediator role of work-related need satisfaction rather than general on teachers' need satisfaction. According to self-determination theory, general need satisfaction is related to gains such as personal growth, motivation, and striving (Deci & Ryan, 1991). These gains valid not only for domain-general need satisfaction but also, they are valid for work-related need satisfaction. Therefore, the satisfaction of work-related needs seems to affect the subjective well-being of the teachers positively.

Several studies have focused on the students to increase the educational quality. However, teachers are equally involved in the learning processes with their social transaction roles (Piaget, 1970) and scaffolding (Vygotsky, 1963). For an effective teaching process, teachers' subjective well-being must be increased in a positive way (Chan, 2013) because studies have shown that experiencing positive affections by individuals contributes very highly to their work performance (Waterman, 1993). Besides, increasing teachers' subjective well-being has contributory effects upon satisfaction of teaching processes (Singh & Billingsley, 1998).

Increasing teachers' subjective well-being is vital for successful teaching and learning (Meriläinen & Pietarinen, 2007). In the current study, a structural equation model was developed and tested to determine high-school teachers' subjective well-being. The results showed that not only work engagement but also satisfaction of work-related needs positively contribute to the subjective well-being of teachers. There are diverse discussions as to how to increase the subjective well-being of teachers in organizational contexts (Hamann & Gordon, 2000; Taylor & Tashakkori, 2010). The results of the present study provide support for these discussions. For instance, this study assumes that work engagement is not sufficient on its own for an increase in the general subjective well-being of teachers. Moreover, this study suggests that further methods should be sought for the achievement of work-related need satisfaction of teachers.

In psychology, many psychological constructs were found related to each other. In the present study, the domain-specific subjective well-being (work engagement) has been considered as an independent variable concerning the relationship between domain-general subjective well-being and satisfaction of needs. It is suggested that domain-general subjective well-being could be used as an independent variable concerning the relationship with domain-specific subjective well-being (engagement) in future studies.

The study has pedagogical implications that need to be taken into consideration. It seems evident that teachers' well-being has a crucial role in the achievement of educational goals. As the study suggests, when work engagement is combined with need satisfaction, it increases teachers' subjective well-being. A happy teacher with work satisfaction has the potential to create a comfortable setting, engage in activities, develop themselves both personally and professionally, foster learning, and motivate students. Therefore, it is worth paying attention to improving teachers' work conditions to have work engagement and work satisfaction. Overall, professional well-being needs to be focused more on the field of education. Teachers who are preparing and shaping our future should work in working environments where the load is reduced, positivity is encouraged, and a high level of well-being is intended. Only resilient teachers who are able to cope with unexpected and difficult times can contribute to educational achievements. School administrators, school psychologists, curriculum developers, and any related stakeholder need to take action to support teachers' work-related need satisfaction and work engagement to positively affect their subjective well-being and regulate working conditions of the teachers accordingly.

STATEMENTS OF PUBLICATION ETHICS

In this research, ethical considerations such as confidentiality of the data, the anonymity of the participants and informed consent were guaranteed.

RESEARCHERS' CONTRIBUTION RATE

Research data was collected and analyzed by the first author. All three authors contributed to the other parts of the study equally.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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