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Turkish Adaptation of the Experiences in Personal Social Systems Scale: A Validity and Reliability Study

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Abstract

Studies aimed at improving the understanding of how individuals experience within social systems have given attention in recent years. Based on this information, the present study aimed to examine the psychometric properties of the Personal Social Systems Experience Scale, a scale developed to assess individuals' personal and work-related experiences in their social systems, by adapting the personal and work-related forms to Turkish culture. The study sample consisted of a total of 352 adults (N (female) = 226, N (male) = 122) between the ages of 18-65 (M = 27.97, SD = 12.13). Of the participants, 235 (66.8%) reported that they were not currently employed, 23 (6.5%) reported that they were employed part-time, and 94 (26.7%) reported that they were employed full-time. Participants were asked to fill out a questionnaire form consisting of the Demographic Information Form, personal and work-related social systems forms of the Experiences in Personal Social Systems Scale, the Interpersonal Relationship Styles Scale, the Need Satisfaction Scale, and the Brief Symptom Inventory. In order to test the construct validity of both forms of the Experiences in Personal Social Systems Scale, Exploratory Factor Analysis and Confirmatory Factor Analysis were applied to the data, respectively. For the personal form of the scale, a 10-item, unidimensional structure was obtained, differing from the original version. On the other hand, the findings indicated that the organization form of the scale exhibited a 10-item, two-dimensional structure, also differing from the original form. The reliability coefficients for both forms of the scale were found to be at satisfactory levels. Additionally, expected correlations were observed between the scale items and the variables used for criterion validity. The emergence of structures in the Turkish versions of the scale that differ from the original forms is thought to be attributable to cultural differences. The findings are discussed in the light of the relevant literature.

Keywords: Experiences in social systems, need satisfaction, interpersonal relationship styles, adaptation study



Introduction

Experiences within personal social systems refer to the entirety of interactions and events that individuals undergo within their social environments. This concept encompasses occurrences across various social contexts—such as family, friendships, workplace, and broader society—and highlights the impact of these experiences on the individual (Luhmann, 1995; Cohen & Hoshino-Browne, 2007). These experiences play a crucial role in shaping an individual's social skills, values, beliefs, and personal development. For instance, supportive or conflictual relationships within the family may significantly influence the nature of an individual's future social interactions. Similarly, experiences gained in the workplace can contribute to the development of professional competencies and career advancement (Manheim, 2013). Therefore, experiences within personal social systems can be understood as all the events encountered in one's social world and their effects on the individual's life, identity, and social relationships.

Developed as an approach to understanding how social structures and interpersonal relationships function as a complex whole, Social Systems Theory conceptualizes society as a system composed of interacting and interdependent parts (subsystems) that work together as an integrated entity (Luhmann, 1995). The theory aims to explain social phenomena and processes through a holistic perspective, highlighting the interrelations among various components of society and how these relationships contribute to social order. Additionally, it interprets individual experiences within the context of individuals' positions in broader social systems and their interactions with these systems. It views personal experiences and lives as outcomes of social structures and processes. These personal experiences are influenced by the functioning of social systems and, in turn, contribute to their maintenance and development. A social system can be defined as a complex network of interrelated social entities—including individuals, groups, organizations, and institutions—interacting within a shared environment (Hendry & Seidl, 2003). These interactions are regulated by norms, values, roles, and behavioral patterns that collectively shape the system's structure and functioning (Coleman, 1986; Luhmann et al., 2013). In other words, individuals cannot be viewed in isolation; rather, they are understood as integral components of larger, interconnected systems that encompass family, community, and broader society.

Experiences play a crucial role in shaping individuals' behaviors, beliefs, and interactions across various social contexts. This perspective provides a deeper understanding of how personal experiences are influenced by social systems and, in turn, how these experiences impact those systems (Reisch & Jani, 2012). Personal experiences are often shaped by cultural symbols and norms, which play a critical role in guiding behavior and social interaction. Talcott Parsons (2013) emphasizes how cultural systems generate shared values and norms internalized by individuals, thereby influencing their motivations and actions within the social system. Moreover, experiences within different social systems—such as family dynamics, community engagement, and societal norms—are not static but dynamic and evolving. This suggests a cyclical relationship in which individuals continuously interact with changes in these systems as they

navigate their personal experiences, adapt to shifting conditions, and simultaneously reflect and reshape their social environments (Friedman & Allen, 2011; Mahlert, 2013).

Social Systems Theory also emphasizes the importance of understanding how systemic factors—such as socioeconomic status, cultural background, and access to societal resources—shape individual experiences. These factors can create opportunities or barriers that significantly influence how individuals perceive and respond to their environments. For instance, individuals from marginalized communities (e.g., African tribes under colonial rule) may have vastly different experiences compared to those from more privileged backgrounds, which can affect their access to resources and support systems (Pease, 2021; Stodden et al., 2023). Viewing individual experiences through the lens of Social Systems Theory enables the development of multi-level intervention strategies (Schölmerich & Kawachi, 2016). For example, social service professionals can acknowledge the complex interplay between personal experiences and systemic influences, thereby designing comprehensive solutions that address not only individual issues but also the broader contextual factors contributing to those issues. This perspective allows professionals—particularly those working in mental health and social work—to analyze clients' attitudes and behaviors through an ecological lens, gaining a more nuanced understanding of their needs and challenges. By recognizing these connections, mental health and social service practitioners can move beyond addressing individual symptoms to developing targeted interventions that tackle underlying systemic problems (Jason & Bobak, 2022; Leo, Laud & Yunhsin Chou, 2019). Such a holistic approach is vital in efforts to improve both individual and community well-being, as it addresses the complex and interconnected factors that influence behavior and psychological health. Through the application of systems thinking, professionals can generate comprehensive solutions that facilitate meaningful change and acknowledge that difficulties often stem not merely from isolated events, but from disruptions within the broader system (Imbrogno & Canda, 1988).

Social systems are categorized as formal and informal structures, primary and secondary groups, and micro, meso, and macro systems (Johnson, 2008; Milofsky, 2018). Each category illustrates how individual experiences and societal functioning are shaped by different dynamics. Formal social systems are structured and regulated by established norms, rules, and laws. Examples include governments, educational institutions, and corporations, which are characterized by defined roles and hierarchies that govern interactions and functions within the system. In contrast, informal social systems consist of personal relationships and social networks, such as friendships and community groups. These systems are characterized by more fluid interactions and are typically guided by social norms rather than formal regulations (Granovetter, 2018; Lee & Hudson, 2011).

Social systems may also be classified according to the closeness of the relationships involved. Primary groups, such as family and close friends, are characterized by intimate, emotional bonds and high levels of interaction. Secondary groups, such as work teams or social clubs, involve more impersonal relationships and are generally goal-oriented, focusing on specific tasks or objectives (Bottero & Prandy, 2003; Vonneilich, 2022).

The microsystem comprises an individual's immediate social environment, including family and close friends, while the mesosystem encompasses the connections and interactions between different microsystems, such as how family dynamics influence a child's school experience. The macrosystem, on the other hand, includes broader societal factors such as cultural norms and economic conditions that affect all individuals and groups within a social system (Bronfenbrenner, 2000). Institutions, composed of established systems of norms, values, and practices, play a critical role in regulating social behavior and relationships (Platteau, 2015). These domains—including family, education, religion, and government—shape individual identities and social functioning over time. Social experiences are significantly influenced by the context in which interactions occur. Social context encompasses the norms, values, and expectations of specific settings, shaping both individual behavior and perceptions (Chung & Rimal, 2016; Rimal & Real, 2005). For example, individuals behave differently in formal settings such as a church compared to informal settings such as a bar, illustrating how situational factors influence social behavior (Jones & Smith, 2017). Moreover, family dynamics and cultural background play important roles in shaping individual social experiences (De Leersnyder, Boiger, & Mesquita, 2013; Syakhranive & Aslan, 2024). The socialization process involves adopting and internalizing beliefs, values, and behaviors prevalent within one's family and cultural context. Cultural norms influence everything from etiquette to communication styles, determining what is considered acceptable behavior (Gudykunst et al., 1996; Qodirova, 2024). For instance, greeting practices vary across cultures: some prefer handshakes, others bowing, and still others kissing on the cheek—highlighting the importance of cultural competence in social interactions. Understanding these distinctions is essential for grasping how social interactions are shaped across different contexts (Friedman & Allen, 2011). The principles of Social Systems Theory provide practitioners with deeper insights into the complexities of human behavior and social interaction. In other words, by acknowledging the multifaceted nature of social systems, practitioners can develop interventions that effectively target the root causes of social problems rather than merely addressing their symptoms (Moore et al., 2019; Vancouver, 1996).

At the core of social systems lies a social structure encompassing relationships, roles, and institutions. These structures generate a sense of order and predictability while simultaneously exerting significant influence on individual experiences and choices. For example, social hierarchies and roles within family units, peer groups, and educational settings shape personal identities and guide how individuals navigate their social environments (Bartholomew & Brown, 2022; Dilley, 2002; Sanford, 2017). Broader environmental contexts also affect social experiences, encompassing physical, cultural, economic, political, and ecological dimensions that collectively shape interactions within a social system (Van Wormer & Besthorn, 2017). For instance, economic conditions may determine opportunities and access to resources, whereas political contexts shape governance structures and societal order—both of which are crucial for understanding social dynamics. Social systems are inherently dynamic, evolving in response to a variety of internal and external factors. Transformations such as technological advancements, demographic shifts, and cultural changes may disrupt existing structures, foster adaptation, or fundamentally alter the nature of social experiences.

Understanding these dynamics is essential for addressing challenges and enhancing collective well-being (Esmark, 2011; Havlin, Nekovee, & Moreno, 2007; Lai & Lin, 2017). Moreover, each social system carries its own distinct set of social problems (Michailakis & Schirmer, 2014). For instance, systems involving significant personal relationships tend to exhibit social issues that differ from those found in work-related systems. A review of the literature indicates that previous studies have generally examined social systems as a whole. However, research focusing on the individual development and change of persons within social systems remains relatively limited (e.g., Hunger et al., 2017). Although an individual approach to social systems has been demonstrated in clinical practice and case studies (e.g., Tomm, 1989), there is a scarcity of measurement instruments that allow for the empirical investigation of such processes. For instance, the Family Assessment Device (Staccini, Tomba, Grandi, & Keitner, 2015) and the Family Adaptability and Cohesion Evaluation Scales (Olson, Portner, & Lavee, 1985) measure how systems function; yet, these tools do not permit individuals to define who should be considered as part of their own systems. Furthermore, existing instruments tend to focus more on problems rather than on solutions (Hunger et al., 2017). In light of these limitations, research aiming to advance the understanding of how individuals experience their position within social systems has gained momentum. Within this framework, Hunger and colleagues (2017) developed the *Experience in Personal Social Systems Questionnaire* (EXIS). This instrument is designed to assess how individuals experience a social system that is personally significant to them. In addition, the EXIS measures personal development within these personally meaningful or work-related systems. Importantly, the EXIS was specifically designed as a research tool for interventions in which only one member of a social system participates. The scale is suitable both for process-oriented research involving multiple measurements and for outcome assessments within intervention programs consisting of several sessions (Hunger et al., 2017). The EXIS has multiple areas of application. These include assessing individuals' level of functioning within their system; conducting intervention studies within a systemic framework when only one member of the system is available; addressing situations where the intervention does not directly target a couple or nuclear family; and interventions at the organization level (e.g., sports team counseling). In these contexts, the EXIS offers a time-efficient alternative.

In summary, social systems are structures composed of individuals whom people consider significant in their lives. Personal change and development can influence how individuals experience their social system as well as the quality of their contributions to it. To gain a better understanding of individuals' functioning within social systems, it is essential to examine how they experience these systems. Therefore, it is considered important to introduce standardized measurement instruments into our language that assess individual experiences within social systems, as such tools can facilitate both outcome and process research related to interventions. Within this framework, the present study aimed to adapt the EXIS–Personal and EXIS–Organization forms into our language and to examine their psychometric properties.

Method

Participants

The participants of the study consisted of 352 individuals residing in various cities across Turkey. Of the participants, 64.2% were women ($N = 226$), and approximately 34.7% were men ($N = 122$). Four participants did not report their gender. Participants' ages ranged from 17 to 77 years ($M = 27.97$, $SD = 12.13$). Detailed information regarding the demographic characteristics of the participants is presented in Table 1.

Measures

Demographic Information Form: A Personal Information Form was developed for the present study in order to obtain demographic data from participants. The form included items regarding gender, age, occupation, educational level, employment status, and income level. In addition, participants were asked whether they had ever received a psychiatric diagnosis.

The Experience in Personal Social Systems Questionnaire (EXIS): The EXIS was developed by Hunger and colleagues (2017) to assess how individuals experience their personal and work-related social systems. The scale consists of two parallel forms: the EXIS–Personal form, which measures experiences within personal social systems, and the EXIS–Organization form, which assesses experiences within work-related social systems. This self-report instrument uses a 6-point Likert scale ranging from 1 (not at all) to 6 (completely), and each form contains 12 items.

Statistical analyses of the original scale indicated that each form comprises four subdimensions: **belonging** (3 items; e.g., “During the past two weeks, I felt that others respected me”), **trust** (3 items; e.g., “During the past two weeks, I felt strong enough to cope with challenges”), **harmony** (3 items; e.g., “During the past two weeks, I felt satisfied”), and **autonomy** (3 items; e.g., “During the past two weeks, I was able to advocate for my own needs”). A total score can also be calculated, and the scale does not include any reverse-scored items.

Internal consistency (Cronbach's alpha) for the original scale ranged from .74 to .91 in the German sample and from .79 to .92 in the English sample. In the present study, Cronbach's alpha coefficients were .89 for the EXIS–Personal form and .92 for the EXIS–Organization form.

Interpersonal Relationship Styles Scale (IRSS): The IRSS was developed by Şahin and colleagues (1994) to identify the style individuals exhibit in interpersonal interactions. This self-report measure consists of 31 items rated on a 4-point Likert scale (0 = never, 3 = always). The scale comprises two subdimensions: Nurturing (odd-numbered items; e.g., “I openly express my desires and needs to the other person”) and Restrictive (even-numbered items; e.g., “I insist on my opinions and statements, paying little attention to the views of others”). Higher scores indicate a more positive interpersonal style. Even-numbered items are reverse-scored. The internal consistency of the original scale was reported as .79 (Şahin, Durak, & Yasak 1994). In the present study, Cronbach's alpha coefficients were .84 for the Restrictive subdimension and .85 for the Nurturing subdimension.

Social Comparison Scale (SCS): The Social Comparison Scale (SCS) was developed by Gilbert, Allan, and Trent (1991) to assess how individuals

perceive themselves in comparison to others. The original form consisted of 5 items. In the Turkish adaptation conducted by Şahin and Şahin (1992), additional items were added, resulting in a final form comprising 18 bipolar items rated on a 6-point scale. Higher scores on the scale indicate a more positive self-schema, whereas lower scores reflect a more negative self-schema. In the adaptation study, the internal consistency of the scale was reported as .79 (Şahin & Şahin, 1992). In the present study, Cronbach's alpha coefficient was calculated as .93.

Brief Symptom Inventory (BSI): The Brief Symptom Inventory (BSI) was developed by Derogatis (1993) as a self-report measure to identify various psychiatric symptoms. The scale was constructed by selecting 53 items from the original 90-item Symptom Checklist (Şahin & Durak, 1994). It is rated on a 5-point Likert scale (1 = not at all, 5 = extremely; e.g., "The idea that someone else might control your thoughts"). The BSI includes five subdimensions: Anxiety, Depression, Negative Self, Somatization, and Hostility. In addition, a total score can be computed, which was the preferred scoring method in the present study. Higher scores indicate a greater likelihood of the psychiatric symptoms mentioned above.

The Turkish adaptation of the scale was conducted by Şahin and Durak (1994). Reliability analyses using three different samples indicated that Cronbach's alpha for the overall scale ranged from .95 to .96, while subscale alphas ranged from .55 to .86 (Şahin & Durak, 1994; Şahin, Batıgün, & Uğurtaş, 2002). In the present study, the internal consistency for the total scale was calculated as .97.

Procedure

For the scale adaptation study, approval was obtained from the Ankara University Ethics Committee. Following this, both forms of the scale were independently translated into Turkish by three clinical psychologists fluent in both Turkish and English. The alternative translations were then compared with the original items by the researchers, and the versions that best reflected the original content and meaning were determined through an inter-rater consensus process. This procedure resulted in the initial Turkish versions of the scale. The Turkish forms were subsequently administered to three individuals outside the study sample to evaluate item clarity and to identify any items that were difficult to understand. Based on their feedback, the final Turkish versions were prepared, and a bilingual expert back-translated them into English. The back-translated version was compared with the original scale to ensure equivalence, resulting in a version ready for use. The study was conducted on a voluntary basis with adult participants who consented to participate. Individuals residing in various cities across Turkey were recruited using a simple random sampling method. To control for order effects, the order of the scales within each set was randomized. Each administration took approximately 20–25 minutes. Data collection was conducted between May and June 2023.

Results

Descriptive Statistics

Mean and standard deviation values for the study variables are presented in Table 2.

Construct Validity of the EXIS–Personal Form: Exploratory Factor Analysis Results

Statistically, it is recommended that exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) be conducted on different samples in scale adaptation studies (see Tabachnick & Fidell, 2001). Accordingly, the study sample of 352 participants was randomly divided into two subgroups: EFA was conducted on the first half ($N = 176$), and CFA on the second half ($N = 176$). To examine the structural properties of the EXIS–Personal Form, an exploratory factor analysis was first performed. Bartlett’s Test of Sphericity was used to assess the assumption of multivariate normality, and the test result was significant ($\chi^2 = 675.73$, $df = 45$, $p < .001$), indicating that the data met the assumption of multivariate normality. The suitability of the sample size for factor analysis was evaluated using the Kaiser-Meyer-Olkin (KMO) test, which yielded a value of 0.85. In the literature, KMO values of 0.60 or higher are considered adequate (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). Accordingly, the data were deemed suitable for factor analysis.

For the exploratory factor analysis (EFA), *principal components analysis* was employed, with *direct oblimin rotation* applied under the assumption that factors could be correlated. Initial results indicated three factors with eigenvalues greater than 1. In determining the number of factors, both the eigenvalues and the *scree plot* were considered. In addition, *parallel analysis* (Horn, 1965), a reliable method for identifying the appropriate number of factors, was conducted using Monte Carlo-generated syntax. The results indicated a unidimensional structure for the scale, with an eigenvalue of 5.05 for the actual dataset compared to 1.45 for the randomly generated dataset. Based on both the scree plot and parallel analysis, the scale was considered unidimensional. Items 12 (“...I realized that I could gradually accept the unfortunate things I cannot change”) and 2 (“...I felt that I accepted things as they are”) contributed less than .30 to the scale’s variance and were therefore removed. The EFA was repeated, resulting in a unidimensional structure comprising 10 items. This final structure accounted for 47.02% of the total variance. The items included in the factor, along with the variance explained, eigenvalues, and internal consistency coefficients, are presented in Table 3.

As shown in Table 3, factor loadings for all items ranged from .62 to .77. The unidimensional structure accounted for 47.02% of the total variance of the scale. In summary, the exploratory factor analysis yielded a single-factor structure comprising 10 items.

Construct Validity of the EXIS–Personal Form: Confirmatory Factor Analysis Results

To confirm the unidimensional structure obtained from the EFA, as previously mentioned, the sample of 352 participants was randomly divided into two groups, and confirmatory factor analysis (CFA) was conducted on the second group ($N = 176$). In the CFA, various fit indices were used to evaluate the degree of fit of the proposed model to the data, including χ^2 (Chi-square), χ^2/df ratio, GFI (Goodness-of-Fit Index), NFI (Normed Fit Index), AGFI (Adjusted Goodness-of-Fit Index), CFI (Comparative Fit Index), RMSEA (Root Mean Square Error of Approximation), and RMR (Root Mean Square Residual).

Examination of the confirmatory factor analysis (CFA) results for the tested model indicated that the unidimensional structure was significant, χ^2 ($df = 35, N = 176$) = 123.27, $p < .01$. The statistically significant and relatively high chi-square value suggests that the model does not perfectly fit the data. However, when considering other fit indices, GFI (.87), NFI (.88), and AGFI (.79) indicate that the model does not exhibit an excellent fit. Additionally, RMSEA (.12) and RMR (.09) fall outside the commonly accepted thresholds for good fit. Nonetheless, the χ^2/df ratio was calculated as 3.52, indicating an acceptable level of fit between the model and the data. Moreover, the CFI value of .91 suggests that the proposed model demonstrates an adequate fit. In the CFA conducted to validate the EFA results, the following criteria were used to assess model fit: $\chi^2/df < 5$; GFI $> .90$; AGFI $> .90$; CFI $> .90$; RMSEA $< .08$; RMR $< .08$; and NFI $> .90$ (Karasar, 2009; Karagöz & Bardakçı, 2020).

To improve model fit, recommendations from the modification indices regarding the correlation of error variances between item pairs were considered. Based on the modification indices, it was first suggested that the error variances of items 10 and 11 be correlated. After implementing this adjustment, the revised model was compared with the initial model, and the chi-square difference test indicated that the modification significantly improved model fit [$\chi^2_{diff}(1), N = 165 = 98.07, p < .001$]. Second, it was recommended to correlate the error variances of items 9 and 10. Following this modification, the revised model demonstrated a better fit to the data compared to the previous model [$\chi^2_{diff}(1), N = 165 = 74.75, p < .001$]. Third, the error variances of items 5 and 6 were suggested to be correlated, and this modification also significantly improved model fit relative to the preceding model [$\chi^2_{diff}(1), N = 165 = 59.79, p < .01$]. In summary, the modification indices recommended correlating the error variances of items within the same factor, in accordance with the original structure of the scale. These recommendations were incorporated into the model sequentially. Each correlation resulted in an improvement in model fit, and the fit indices of the resulting models are presented comparatively in Table 4.

Examination of the fit indices for the single-factor model presented in Table 4 indicated excellent model fit, with GFI (.94), NFI (.94), and AGFI (.90) values. Additionally, RMSEA (.07) and RMR (.06) suggested that the model demonstrated an acceptable level of fit to the data. The χ^2/df ratio was calculated as 1.87, further supporting the good fit of the model. Moreover, the CFI value of .97 strongly indicates that the model exhibited excellent fit to the data.

Findings on the Criterion Validity of the EXIS–Personal Form

To examine the criterion validity of the EXIS–Personal Form, relationships between the EXIS–Personal Form and the Interpersonal Relationship Styles Scale (IRSS; Şahin et al., 1994), the Social Comparison Scale (SCS; Gilbert et al., 1991), and the Brief Symptom Inventory (BSI; Derogatis, 1993) were analyzed. Correlation analysis results indicated that, as expected, the EXIS–Personal Form was positively correlated with the nurturing subscale of the IRSS ($r = .27, p < .01$) and negatively correlated with the restrictive subscale ($r = -.27, p < .01$). Consistent with expectations, the EXIS–Personal Form was positively correlated with the SCS ($r = .45, p < .01$). Finally, a negative correlation was observed between

the EXIS–Personal Form and the BSI ($r = -.46, p < .01$). These findings support the hypothesized relationships.

Findings on the Reliability of the EXIS–Personal Form

To assess the reliability of the EXIS–Personal Form, internal consistency (Cronbach’s alpha) and split-half reliability coefficients were calculated. The internal consistency of the EXIS–Personal Form was found to be .87. Additionally, the correlation coefficient for the split-half reliability of the scale was .83.

Construct Validity of the EXIS–Organization Form: Exploratory Factor Analysis Results

As previously highlighted, methodological guidelines recommend that exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) be conducted on independent samples to ensure statistical robustness (Tabachnick & Fidell, 2001). In line with this recommendation, the total sample of 352 participants was randomly divided into two subsamples: EFA was performed on the first subsample ($N = 176$), while CFA was conducted on the second subsample ($N = 176$). To address the primary aim of the study—examining the factor structure of the EXIS–Organization Form—an exploratory factor analysis was initially undertaken. Bartlett’s Test of Sphericity was employed to assess the suitability of the data for factor analysis, and the significant result ($\chi^2 = 937.68, df = 45, p < .001$) confirmed its appropriateness. Moreover, the Kaiser-Meyer-Olkin (KMO) measure yielded a value of .87, indicating excellent sampling adequacy. The principal components method was used for extraction, and, given the assumption that factors might be correlated, the direct oblimin rotation technique was applied. Preliminary results revealed two factors with eigenvalues greater than 1. In determining the number of factors to retain, both the eigenvalues and the graphical distribution provided by the scree plot were considered.

In addition, a parallel analysis (Horn, 1965), recognized as a highly reliable method for determining the number of factors, was performed. Syntax generated through Monte Carlo simulations was used in the analysis. The results of the parallel analysis supported a two-factor solution for the scale. Specifically, the first eigenvalue from the actual dataset (6.09) exceeded the corresponding eigenvalue from the random dataset (1.46). Similarly, the second eigenvalue from the actual dataset (1.39) was greater than the random dataset eigenvalue (1.33). Taken together with the scree plot, these results indicated that a two-factor structure was most appropriate. However, Item 7 and Item 8 demonstrated substantial cross-loadings (i.e., $> .40$) on both factors and were therefore sequentially removed from the analysis. The final two-factor structure accounted for 63.70% of the total variance explained. The factor loadings, variance explained, eigenvalues, and internal consistency coefficients for each factor are presented in Table 5.

As presented in Table 5, the factor loadings for all items ranged from .61 to .95. The two-factor solution accounted for 63.70% of the total variance. Overall, the exploratory factor analysis supported a structure comprising two factors and ten items.

Construct Validity of the EXIS–Organization Form: Confirmatory Factor Analysis Results

As previously noted, to test the validity of the single-factor model obtained from the EFA, the total sample of 352 participants was randomly divided into two groups, and CFA was conducted on one of these groups ($N = 176$). Within the CFA, several fit indices were employed to evaluate the degree to which the proposed model fit the data. Specifically, the analyses included the chi-square statistic (χ^2), the chi-square to degrees of freedom ratio (χ^2/df), the Goodness of Fit Index (GFI), the Normed Fit Index (NFI), the Adjusted Goodness of Fit Index (AGFI), the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), and the Root Mean Square Residual (RMR).

The results of the confirmatory factor analysis (CFA) for the tested two-factor model indicated $\chi^2 (df = 34, N = 135) = 79.71, p < .001$. When considered in isolation, the chi-square statistic was high and significant, suggesting that the model did not exhibit perfect fit with the data. Examination of the other fit indices showed that the GFI (.89), NFI (.89), and AGFI (.80) values fell below the ideal thresholds, indicating that the model did not demonstrate excellent fit. Similarly, the RMSEA (.10) and RMR (.07) values exceeded the acceptable limits, further pointing to insufficient model fit. Nevertheless, the χ^2/df ratio was calculated as 2.34, which suggests an acceptable level of fit between the model and the data. Moreover, the CFI value of .93 indicated an adequate fit of the proposed structure to the data. In evaluating the adequacy of the model within the CFA conducted to confirm the EFA findings, widely accepted cutoff criteria were considered: $\chi^2/df < 5$; GFI $> .90$; AGFI $> .90$; CFI $> .90$; RMSEA $< .08$; RMR $< .08$; and NFI $> .90$ (Karasar, 2009; Karagöz & Bardakçı, 2020).

In order to improve the model fit, suggestions from the modification indices regarding the correlation of error variances among items were taken into account. According to the modification index results, it was first suggested that the error variances of Items 1 and 2 be correlated. Following this adjustment, the revised model demonstrated a significantly better fit compared to the previous model [$\Delta\chi^2(1), N = 132 = 68.92, p < .001$]. Subsequently, the correlation of error variances between Items 3 and 5 was recommended, and this modification also resulted in a significant improvement in model fit relative to the prior model [$\Delta\chi^2(1), N = 132 = 56.14, p < .01$]. In sum, as suggested by the modification indices, correlations among error terms of items within the same subdimension were gradually incorporated into the model, and each adjustment was observed to positively contribute to the overall model fit. The comparative results of the fit indices for the respective models are presented in Table 6.

As shown in Table 6, the fit indices for the two-factor model indicate a high level of fit to the data, with GFI (.92), NFI (.92), and AGFI (.87) values demonstrating satisfactory model fit. Additionally, the RMSEA (.08) and RMR (.07) values fall within acceptable limits, suggesting adequate correspondence between the model and the data. The χ^2/df ratio was calculated as 1.75, further indicating good model fit. Moreover, the CFI value of .97 reflects an excellent fit of the model to the data.

Findings on the Criterion Validity of the EXIS–organization Form

To examine the criterion validity of the EXIS-organization form, the relationships between the EXIS–organization form and the Interpersonal

Relationship Styles Scale (IRSS) (Şahin et al., 1994), the Social Comparison Scale (SCS) (Gilbert et al., 1991), and the Brief Symptom Inventory (BSI) (Derogatis, 1993) were investigated. According to the findings of the correlation analysis, first, as expected, both subscales of the EXIS-organization form were positively associated with the nurturing subscale of the Interpersonal Relationship Styles Scale ($r = .38, p < .001$; $r = .33, p < .001$), and negatively associated with the inhibiting subscale ($r = -.04, p < .05$; $r = -.15, p < .05$). Consistent with the expectations, both subscales of the EXIS-organization form were positively correlated with the Social Comparison Scale ($r = .37, p < .001$; $r = .36, p < .001$). Finally, both subscales of the EXIS-organization form were found to be negatively correlated with the Brief Symptom Inventory ($r = -.28, p < .001$; $r = -.30, p < .001$), a finding that also supports the hypotheses.

Findings on the Reliability of the EXIS-Organization Form

To assess the reliability of the EXIS-organization form, analyses were conducted to calculate Cronbach's alpha internal consistency coefficient as well as split-half reliability coefficients. The internal consistency coefficient of the EXIS-organization form was calculated as .90 for the total scale and .88 and .82 for its subscales. In addition, the correlation coefficient for the split-half reliability of the scale was found to be .89.

Discussion

This study aimed to adapt into Turkish the Experiences in Personal Social Systems Questionnaire (EXIS), originally developed by Hunger et al. (2017) to assess how individuals experience personal and work-related social systems. For this purpose, the factor structure, construct validity, criterion validity, and reliability of the scale were examined. To evaluate construct validity, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted separately for the two forms of the scale. The EFAs and CFAs were carried out on two distinct samples to ensure statistical appropriateness.

Firstly, the results of the exploratory factor analysis (EFA) conducted for the EXIS-personal form indicated that Items 12 and 2 contributed less than .30 to the variance of the scale. Therefore, these items were sequentially removed, and the EFA was repeated. The findings showed that the remaining 10 items loaded strongly onto a single factor. In other words, while in the original version of the scale the items were grouped under four subdimensions—namely “belonging,” “trust,” “autonomy,” and “conformity,” as defined by Hunger et al. (2017)—in the Turkish version, all items clustered under a single factor. These results suggest that the factor structure of the Turkish version of the personal form is relatively simple and parsimonious. This study found that the factor structure of the Turkish version of the Personal Social Systems Experiences Scale (PSS) differed partially from the original version. This difference may be due to the combined effects of the cultural context in which the scale was implemented and methodological factors related to the measurement process. The following section discusses the possible cultural and methodological reasons for this difference, respectively. Firstly, when considering cultural factors, while cultures with an individualistic orientation place greater emphasis on personal autonomy and self-actualization (İmamoğlu, Günaydın, & Selçuk, 2011), cultures with a collectivistic orientation value conformity to the group and other-oriented

ways of living (İmamoğlu, 1998; Schwartz, 2014). Similarly, autonomous self-construals are more prevalent in individualistic cultures, whereas relational self-construals are more common in collectivistic cultures (see Chang, 2015). Considering that Turkish culture has predominantly collectivistic tendencies (İmamoğlu & İmamoğlu, 1992), participants in this study may have perceived the concepts of belonging, autonomy, conformity, and trust as complementary and interrelated, rather than as distinct and independent constructs. In other words, these concepts may not be perceived separately within Turkish society. One of the primary explanations for the variation in the factor structure observed in the Turkish sample lies in the culturally grounded ways individuals construe their relationships with social systems (Şah & Şah, 2022; Yam, 2021). In Western societies, where the original scale was developed, values such as individualism, autonomy, and the maintenance of personal boundaries are central. In contrast, Turkish culture is characterized by a more collectivistic orientation, emphasizing interpersonal interdependence, social harmony, and the importance of community approval. Such cultural orientations may alter the meanings attached to constructs like “personal boundaries” and “social support.” (Azizoğlu, 2011; Brady & Chidchoi, 2021; Li, 2003; Turhan, 2017). For instance, within the Turkish context, “maintaining one’s own boundaries” may be interpreted not as an indicator of individual strength or assertiveness, but rather as a sign of “coldness” or “incompatibility.” This perceptual divergence likely contributed to the differential factor loadings observed, thereby reshaping the original factor structure. Moreover, in societies where family ties are strong and social roles are more explicitly defined, individuals tend to construct their sense of self through interpersonal relationships. Consequently, dimensions such as “relational support” and “social belonging,” which were originally conceptualized as distinct factors in the original version, may have converged into a single factor within the Turkish sample. Additionally, cultural norms regarding emotional expression represent another critical influence (Bott & Spillius, 2014; Cook, 1993). Whereas open emotional expression is typically regarded as a positive and adaptive quality in Western contexts, Turkish culture tends to value emotional moderation and the preservation of relational harmony. This cultural tendency may have obscured the distinction between the dimensions of “self-expression” and “relational harmony (Bhugra & McKenzie, 2003; Lim, 2016; Ramzan & Amjad, 2017). Finally, subtle linguistic and semantic differences introduced during the adaptation process may also have influenced the factor structure. The Turkish equivalents of certain psychological constructs may not fully capture the same cultural connotations as in the source language, and some translated expressions may have acquired context-specific meanings (Abu Hasan, Munawar, & Abdul Khaiyom, 2022; Çapık, Gözüm, & Aksayan, 2018). These semantic shifts could have contributed to the reorganization of factors observed in the Turkish version of the scale.

Secondly, In addition to cultural factors, the structural differences observed in the Turkish version of the scale can also be attributed to methodological considerations (Arafat, Chowdhury, Qusar, & Hafez, 2016; Bayık & Gürbüz, 2016). First, the demographic characteristics of the sample (e.g., age, gender, educational level, occupation) may differ from those of the original study. For instance, while the original validation study was conducted with university students, the Turkish sample primarily

consisted of employed adults, which may have influenced the way individuals structure and experience their interactions within social systems (Byrne, 2016; Heggstad et al., 2019). Furthermore, the technical decisions made during the factor analysis process—such as the rotation method employed, the criteria for determining the number of factors, and the item loading thresholds—directly affect the resulting factor structure. Items with low loadings or cross-loadings on multiple factors may have led researchers to reconsider or relabel certain factors based on conceptual justifications. Additionally, the stronger tendency toward social desirability observed in Turkish culture may have influenced participants' responses. Individuals may have been more inclined to provide socially acceptable answers, particularly to items related to interpersonal relationships, thereby weakening the differentiation between factors (Eskin, 2003; Smith, Smith, & Seymour, 1993; Tülin & Özbirecikli, 2006). In conclusion, the partial divergence of the KSSYÖ's factor structure in the Turkish context from that of the original version appears to be a natural outcome of both culturally grounded meaning-making processes and methodological variations inherent in the measurement procedure. This finding underscores the importance of ensuring not only linguistic equivalence but also conceptual and cultural validity during the adaptation of psychological instruments across cultures. Although the scale demonstrates adequate validity for assessing experiences within social systems among Turkish participants, the observed differences suggest that personal social systems in Turkish culture are perceived in a more relational, contextual, and holistic manner.

Following the EFA, a confirmatory factor analysis (CFA) was performed to test the unidimensional structure. However, the fit indices initially did not reach acceptable levels, and thus modification indices were examined. Based on the suggestions of the modification indices, three error covariances were specified between related items, after which the χ^2/df ratio indicated an excellent fit for the EXIS–personal form. Sümer (2000) emphasized that modification indices must be used with caution, as relying on them merely to improve model fit contradicts the fundamental philosophy of structural equation modeling (SEM). Therefore, any modifications based on these indices must be theoretically justified or conceptually meaningful. In line with this principle, error covariances were specified only between items that belonged to the same subdimension in the original version of the scale and that were conceptually similar, thereby preserving the theoretical basis of the scale. For this reason, it is considered that these modifications did not negatively affect the factor structure. As a result of these modifications, fit indices such as RMSEA, CFI, NFI, and GFI reached excellent levels. In addition, reliability analyses indicated that the internal consistency and split-half reliability coefficients of the scale form were satisfactory and high. Consequently, unlike the original version, a 10-item, unidimensional form was obtained. Therefore, in order to fully confirm the distinct structure of the Turkish version, future studies are recommended to re-examine the factor structure in different samples and replicate the EFA.

In addition to examining the construct validity and reliability of the personal form of the EXIS, its concurrent criterion validity was also tested by investigating its relationships with other theoretically related variables. To this end, the associations between the EXIS–personal form and the Interpersonal Relationship Styles Scale (Şahin et al., 1994), the Social

Comparison Scale (Gilbert et al., 1991), and the Brief Symptom Inventory (Derogatis, 1993) were examined. First, consistent with expectations, the EXIS–personal form was found to be positively associated with the nurturing subscale of the Interpersonal Relationship Styles Scale and negatively associated with its inhibiting subscale. In other words, as individuals’ positive experiences within their personal systems increased, their tendency to display nurturing attitudes in interpersonal relationships also increased, whereas their tendency to display inhibiting attitudes decreased. Furthermore, supporting the hypotheses, the EXIS–personal form showed a positive correlation with the Social Comparison Scale. That is, the more positive experiences individuals had within their personal social systems, the more likely they were to perceive their self-concept positively when comparing themselves with others. This finding is also consistent with previous research (see Arigo et al., 2020; Collins, 1996). Finally, the EXIS–personal form was found to be negatively associated with the Brief Symptom Inventory. In other words, as individuals reported more positive experiences in their personal lives, the likelihood of experiencing psychiatric symptoms such as anxiety and depression decreased. This result is in line with both theoretical expectations and prior empirical findings (see McNair, Highet, & Hickie, 2002; Steger & Kashdan, 2009)

Second, an exploratory factor analysis (EFA) was conducted for the EXIS–organization form. The findings indicated a two-factor structure, with Items 7 and 8 loading strongly (above .40) on both factors. Therefore, Items 7 and 8 were sequentially removed, and the EFA was repeated. The results showed that the remaining 10 items loaded onto two distinct factors. In other words, while in the original version of the scale the items were grouped under four subdimensions—“belonging,” “trust,” “autonomy,” and “conformity,” as identified by Hunger et al. (2017)—in the Turkish version, the “conformity” and “belonging” subdimensions loaded onto one factor, and the “autonomy” and “trust” subdimensions loaded onto another. These findings suggest that the factor structure of the Turkish version of the organization form is simpler and more parsimonious compared to the original form. This difference can also be explained by the cultural and methodological characteristics mentioned above. As noted earlier, cultures with an individualistic orientation place greater importance on personal autonomy and self-actualization (İmamoğlu et al., 2011), whereas cultures with a collectivistic orientation emphasize conformity to the group and other-oriented ways of living (İmamoğlu, 1998; Schwartz, 2014). Similarly, autonomous self-construals are more prevalent in individualistic cultures, whereas relational self-construals are more common in collectivistic cultures (see Chang, 2013). Considering that Turkish culture predominantly reflects collectivistic tendencies (İmamoğlu & İmamoğlu, 1992), participants in this study may have perceived belonging and conformity, as well as autonomy and trust, as complementary and intertwined constructs rather than as independent dimensions. In other words, these constructs may not be perceived as clearly distinct within Turkish society. However, it should not be overlooked that this divergence may also have been influenced by the translation process of the scale in addition to cultural factors. These considerations may account for why the items representing the four subdimensions (belonging, autonomy, conformity, trust) in the original version of the EXIS–organization form converged into two factors in the EFA. Following the EFA, a confirmatory factor analysis (CFA) was conducted to test the two-factor structure.

However, the initial fit indices did not indicate acceptable levels of model fit, and thus the modification indices were examined. Based on their suggestions, two error covariances were specified between related items, after which the χ^2/df ratio indicated an excellent fit for the EXIS-organization form. As emphasized earlier, any modifications based on modification indices must be grounded in theoretical justification or conceptually meaningful reasoning (Sümer, 2000). In line with this principle, error covariances were introduced only between items that belonged to the same subdimension in the original version of the scale and that were conceptually close in meaning, thereby preserving the theoretical basis of the instrument. For this reason, it is considered that these modifications did not negatively affect the factor structure. As a result of these modifications, fit indices such as RMSEA, CFI, NFI, and GFI reached excellent levels. In addition, reliability analyses indicated that the internal consistency and split-half reliability coefficients of the scale were satisfactory and high. Consequently, unlike the original version, a 10-item, two-factor structure was obtained. However, to fully validate this distinct structure from the original version, it is recommended that future studies re-examine the factor structure on different samples and replicate the EFA.

In addition to examining the construct validity and reliability of the EXIS-organization form, its concurrent criterion validity was tested by investigating its relationships with other theoretically related variables. To this end, the associations between the EXIS-organization form and the Interpersonal Relationship Styles Scale (Şahin et al., 1994), the Social Comparison Scale (Gilbert et al., 1991), and the Brief Symptom Inventory (Derogatis, 1993) were examined. First, as expected, both subscales of the EXIS-organization form were positively associated with the nurturing subscale and negatively associated with the inhibiting subscale of the Interpersonal Relationship Styles Scale. In other words, as individuals' positive experiences in their professional lives increased, their tendency to exhibit nurturing attitudes in interpersonal relationships also increased, while their tendency to exhibit inhibiting attitudes decreased. Consistent with expectations, both subscales of the EXIS-organization form were positively correlated with the Social Comparison Scale. That is, as individuals experienced more positive events in their professional lives, they were more likely to perceive their self-concept positively when comparing themselves with others. This finding is also consistent with previous research (Judge, Erez, & Bono, 1998). Finally, both subscales of the EXIS-organization form were negatively associated with the Brief Symptom Inventory. In other words, as individuals reported more positive experiences in their professional lives, the likelihood of experiencing psychiatric symptoms such as anxiety and depression decreased. This finding is in line with both theoretical expectations and previous empirical studies (see Sprung & Rogers, 2021). Given that the EXIS-personal and organization forms consist of parallel items and measure similar constructs related to social and work life, these findings are not surprising.

Practical Applications

The Personal Social Systems Experiences Scale (PSS) is a measurement tool for understanding individuals' experiences within social systems. The scale provides information on areas such as social relationships, boundaries, roles, and emotional experiences in personal and organizational contexts. Therefore, it can be used theoretically to examine

an individual's interaction with their social environment, as well as to support practical development, intervention, and assessment processes.

First of all, in counseling and therapy, it helps individuals identify boundaries in their social relationships, support systems, and social interaction styles. It can also be used to help identify goals for areas such as difficulties with social functioning and dependent or excessively distant relationship patterns. Additionally, it can be administered as a pretest and posttest to monitor changes in social relationships during the therapy process.

Secondly, it is a helpful scale for understanding an individual's interaction with social systems in clinical and mental health settings such as depression, anxiety, and personality disorders. The scale can also help identify an individual's strengths and weaknesses in areas such as maintaining personal boundaries, seeking support, or managing conflict. It can also be used to understand an individual's social interaction style in group processes.

Thirdly, in organizational psychology and business life, the scale can measure the extent to which boundaries, support systems, or a sense of belonging are experienced in internal organizational relationships. Furthermore, it can be used to assess elements such as social connectedness, communication, and trust within the organization. Additionally, it is useful in understanding the social system relationships between managers and employees, and between employees within the workplace.

Fourth, it supports students or participants in training and development programs in structuring their relationships with their social environment. It can be used as an initial and final assessment tool for themes such as empathy, boundary setting, and communication. Additionally, it guides individuals in mentoring processes to discover their strengths within the social context.

Finally, in the research field, the scale is suitable for empirical studies related to Bronfenbrenner's ecological systems approach or social structure theories. Furthermore, in cross-cultural comparative studies, it allows for examining how individual experiences of social systems vary across different social structures. Finally, in relationship studies, its relationships with relational variables such as self-esteem, social support, loneliness, burnout, and organizational commitment can be examined.

Limitations and Directions for Future Research

This study, which examined the psychometric properties of both the personal and organization forms of the EXIS, has several limitations. First, test-retest reliability was not assessed for either form. Calculating test-retest reliability is strongly recommended to increase the reliability of the scale in future studies. Second, considering the limitations of our sample, it appears that it consists predominantly of female and highly educated participants, which hinders the generalizability of the findings. Assessing the scale in more diverse samples would enhance the generalizability of the findings in the future studies. Third, the current study is cross-sectional. Future longitudinal studies are recommended to establish a cause-and-effect relationship and obtain more reliable findings. Fourth, another limitation concerns the measurement equivalence between the

Turkish and original versions of the scale. While the translation and adaptation processes were carried out with linguistic and conceptual care, complete measurement invariance across cultures cannot be assumed. Cultural and semantic nuances may have altered the interpretation of certain items, which may have affected the comparability of scores across populations. Without formal tests of structural, metric, and scalar invariance, it remains unclear whether the Turkish version measures the same latent constructs in precisely the same way as the original version. Therefore, future studies should use multigroup confirmatory factor analysis (CFA) to examine the extent of measurement equivalence across cultural contexts. Finally, the effects of participants' sociodemographic characteristics on their experiences in personal and work-related social systems were not examined. Future studies should consider these variables to provide a more comprehensive understanding of the factors influencing such experiences.

Despite these limitations, the findings suggest that the Turkish versions of both the personal and organization forms of the EXIS exhibit satisfactory validity and reliability. Consequently, the study has introduced a two-form instrument to the field: a 10-item, unidimensional personal form and a 10-item, two-subdimension organization form for assessing individuals' experiences in personal and work-related social systems. This contribution is expected to facilitate further research on the types of experiences individuals encounter in their social and professional lives. Moreover, based on the current findings and limitations, future studies are encouraged to employ alternative assessment methods and develop additional instruments to more comprehensively measure experiences within personal and work-related systems.

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TABLES

Table 1. Demographic Characteristics of the Participants

Gender	<i>N</i>	(%)
Female	226	64.2
Male	122	34.7
Education Level	<i>N</i>	(%)
Primary school	18	5.1
Middle school	16	4.5
High school	41	11.6
College	13	3.7
Licence	224	63.6
Postgraduate	40	11.4
Income Level	<i>N</i>	(%)
Low	187	53.1
Middle	103	29.2
High	44	12.5
Working Status	<i>N</i>	(%)
Unemployed	235	66.8
Part Time	23	6.5
Full Time	94	26.7

Table 2. Mean and Standard Deviation Values of the Study Variables

Variables	Mean	Standard Deviation
EXIS-personal	49.58	10.15
EXIS-organization	49.18	11.04
IRSS-Nurturing style	31.79	5.84
IRSS- Inhibitory style	10.83	6.31
SCS	84.21	16.52
BSI	96.11	32.10

Note: EXIS-personal = Personal form of the Experiences in Personal Social Systems Questionnaire; EXIS-organization = Organizational form of the Experiences in Personal Social Systems Questionnaire; IRSS-Nurturing style = Nurturing style subscale of the “Others and You” Scale; IRSS-Inhibiting style = Inhibiting style subscale of the “Others and You” Scale; SCS = Social Comparison Scale; BSI = Brief Symptom Inventory

Table 3. Factor Structure of the EXIS–Personal Form

Items	Personal
8. Over the past two weeks, I was able to decide how much I wanted to contribute to my significant personal relationships.	.77
5. Over the past two weeks, I felt acknowledged in my significant personal relationships.	.77
7. Over the past two weeks, I was able to advocate for my own needs in my significant personal relationships.	.72
9. Over the past two weeks, I noticed that I was able to maintain appropriate boundaries between myself and others in my significant personal relationships.	.68
11. Over the past two weeks, I hoped that certain aspects of my significant personal relationships could continue positively.	.67
6. Over the past two weeks, I felt welcomed in my significant personal relationships.	.67
10. Over the past two weeks, I felt strong enough to cope with challenges in my significant personal relationships.	.67
1. Over the past two weeks, I felt satisfied in my significant personal relationships.	.64
4. Over the past two weeks, I experienced a sense of belonging in my significant personal relationships.	.63
3. Over the past two weeks, I felt in harmony with others in my significant personal relationships.	.62
Eigenvalue	4.70
Explained variance	47.02
Internal consistency coefficient	.87

Table 4. Fit Index Values

Model	χ^2	Sd	χ^2/sd	GFI	AGFI/NFI	CFI	RMSEA	RMR
Single factor model	123.27	35	3.52	.87	.79/.88	.91	.12	.09
1. model	98.07	34	2.88	.89	.83/.90	.93	.11	.09
2. model	74.75	33	2.27	.93	.88/.93	.96	.09	.07
3. model	59.79	32	1.87	.94	.90/.94	.97	.07	.06

Table 5. Factor Structure of the EXIS-Organization Form

Items	1.factor	2.factor
5. Over the past two weeks, I felt respected by others in my significant professional relationships.	.88	
4. Over the past two weeks, I experienced a sense of belonging in my significant professional relationships.	.81	
1. Over the past two weeks, I felt satisfied in my significant professional relationships.	.79	
6. Over the past two weeks, I felt welcomed in my significant professional relationships.	.76	
2. Over the past two weeks, I felt aware of the current state of my significant professional relationships.	.73	
3. Over the past two weeks, I felt in harmony with others in my significant professional relationships.	.61	
12. Over the past two weeks, I felt confident in my ability to cope with aspects of my significant professional relationships that I cannot change.		.95
10. Over the past two weeks, I felt strong enough to cope with challenges in my significant professional relationships.		.86
9. Over the past two weeks, I was able to maintain appropriate boundaries with others in my significant professional relationships..		.65
11. Over the past two weeks, I hoped that certain aspects of my significant professional relationships could continue positively.		.64
Eigenvalue	4.99	1.38
Explained variance	49.92	13.78
Internal consistency coefficient	.88	.82

Table 6. Fit Index Values

Model	χ^2	Sd	χ^2/sd	GFI	AGFI/NFI	CFI	RMSEA	RMR
Single factor model	79.71	34	2.34	.89	.82/.89	.9	.10	.07
1. model	68.92	33	2.09	.91	.84/.91	.95	.09	.07
2. model	56.14	32	1.75	.92	.87/.92	.97	.08	.07