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The longitudinal relationships of neophobia with family life satisfaction: a cross-lagged panel analysis of happiness externality and family harmony

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Abstract
This study investigated the longitudinal associations between neophobia, externality of happiness, family harmony, and family life satisfaction. Data were collected from 315 Turkish adults (M = 24.14 years) across two waves with a five-month interval. Applying a Cross-Lagged Panel Model (CLPM) to assess temporal precedence, the results revealed that neophobia at Time 1 significantly and positively predicted family harmony at Time 2. This longitudinal link, while counterintuitive, suggests that a dispositional resistance to novelty may function as a stabilizing factor within the family system by potentially reinforcing established routines. Furthermore, neophobia was found to positively predict the externality of happiness, which in turn had a negative impact on family harmony. Finally, family harmony emerged as a significant predictor of family life satisfaction. The findings are discussed within the frameworks of Family Systems Theory and Self-Determination Theory, emphasizing the role of individual dispositions in maintaining relational stability in specific cultural contexts.

Keywords Neophobia · Family harmony · Externality of happiness · Family life satisfaction

Introduction

Individuals exhibit significant differences in their responses to the rapid social and environmental changes brought about by modern life. While these changes may offer certain conveniences, they can also bring about a range of psychological challenges (Morgan et al., 2021). These environments characterized by uncertainty and rapid change can be psychologically taxing, particularly for individuals with low tolerance for uncertainty (Limone & Toto, 2021). In some individuals, this situation may lead to the development of avoidance or discomfort in response to novelty (Seiferth et al., 2023). This predisposition, known as neophobia, reflects a tendency to resist new experiences and can limit individuals' capacity for effective adaptation. Although traditionally studied within specific behavioral contexts, neophobia may also reflect a broader coping style with significant effects on emotional adaptation in rapidly changing social environments (De Witte et al., 2021). Neophobia serves as a basic protective mechanism that helps individuals avoid potential threats by resisting unfamiliar experiences. Any stimulus deviating from existing schemas such as new foods or social interactions can trigger neophobic discomfort (Greggor et al., 2015). The intensity of neophobic responses may vary depending on the degree of unfamiliarity, with greater novelty often eliciting stronger avoidance. Interestingly, neophobia can persist even in the absence of negative outcomes, particularly if exposure to novelty is infrequent or emotionally overwhelming (Białek-Dratwa et al., 2022). Although neophobia is commonly studied in relation to childhood eating behaviors (Karaağaç & Bellikci-Koyu, 2023), emerging findings suggest that it may also contribute to relational difficulties and emotional regulation challenges in adulthood. Importantly, the way individuals respond to

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novelty may be shaped by their family environment. Supportive and cohesive family structures have been found to buffer anxiety related to unfamiliar situations (Di Nucci et al., 2022), suggesting that family harmony may play a key role in helping individuals navigate novelty with a sense of psychological security. Beyond these relational dynamics, the avoidance-oriented nature of neophobia may also related to how individuals perceive the origins of their own well-being, potentially shifting the locus of happiness toward external factors.

The associations of individual dispositions like neophobia on personal well-being is often mediated through relational dynamics, specifically family harmony. Family harmony reflects the emotional connectedness and adaptive balance a family maintains against stressors (Minuchin et al., 2021). In the context of neophobia, a resistance to novelty may paradoxically lead individuals to cling more tightly to established family routines and traditional structures to maintain stability (Paleari et al., 2025). Research indicates that harmonious family environments enhance individuals' psychological well-being by providing emotional security and facilitating resilience during challenging times (Kes & Aydin Yıldırım, 2020). Moreover, family harmony contributes to the effective management of responsibilities, communication, and daily functioning within the household, including members' engagement with work, education, and digital tools (Dutot et al., 2022). However, when this harmony is perceived as being contingent upon maintaining a rigid status quo, it may influence the cognitive appraisal of one's well-being (Urbina-Garcia, 2025). This dynamic suggests that the externality of happiness may not be solely an individual cognitive trait, but rather a relational outcome influenced by the emotional tone and adaptive capacity of one's family system.

The relational dynamics established within the family system may further shape how individuals perceive the locus of their well-being, particularly in the context of neophobic tendencies (Balayar et al., 2025). In environments where emotional support and harmony are perceived as rigid or fragile, individuals may not only avoid novelty but also tend to seek the source of their happiness in external factors, such as social approval or material success (Yildirim & Belen, 2019). This orientation, known as the externality of happiness, refers to the belief that one's happiness depends primarily on circumstances outside of one's internal control (Arslan, 2023). The concept of externality of happiness refers to the belief that one's happiness depends primarily on external circumstances such as wealth, social approval, or material success (Luo et al., 2025). This orientation, which reflects an extrinsically regulated understanding of well-being, has been consistently associated with lower psychological functioning (Joshanloo, 2017). Research has shown that individuals high in the externality of happiness tend to report lower levels of life satisfaction, positive affect, and resilience, while also being more susceptible to psychological strain and emotional fragility (Yildirim et al., 2018). Furthermore, because the externality of happiness encourages individuals to locate their well-being outside of their own agency, it may serve as a critical cognitive mechanism that links dispositional traits and relational harmony to overall life satisfaction (Joshanloo, 2021). Despite its global relevance (Joshanloo, 2019), there is a significant gap in the literature regarding how this construct operates as a bridge between individual-level fear to novelty and systemic family outcomes. The cultural context of Türkiye provides a unique landscape for examining these dynamics. In collectivistic societies like Türkiye, where family interdependence and traditional loyalty are prioritized, the family serves as the primary source of emotional and social support (Sümen & Öncel, 2024; Güler & Yıldırım, 2022). Furthermore, recent rapid social transformations in Türkiye have created a tension between traditional values and modern influences, potentially making neophobic tendencies more relevant as individuals navigate these changes (Akyıl et al., 2025). Exploring these variables in a Turkish sample allows for a deeper understanding of how resistance to novelty may paradoxically support relational cohesion in a culture that values stability and shared family identity.

The final outcome of these individual and relational processes is reflected in family life satisfaction, which represents a person's cognitive evaluation of their family experiences (Banov Trošelj et al., 2026). The extent to which individuals attribute their happiness to external conditions may significantly shape their experiences within family life. When individuals perceive their well-being as dependent on external approval, rewards, or conditions rather than intrinsic motivation, they may enter relationships with a contingent orientation (Kyriazos & Poga, 2025). Crucially, family harmony represents the relational process, whereas family life satisfaction is the individual's subjective judgment of that process (Karmacharya et al., 2025). Such an externally-driven perspective can disrupt emotional adjustment and reduce mutual satisfaction, especially within family dynamics where unmet external expectations undermine relational bonds (Cerin et al., 2023). From a systemic perspective, these belief systems can hinder relational reciprocity, ultimately reducing overall satisfaction with family life (Tarkar et al., 2023). Empirical evidence suggests that individuals who perceive high levels of family support and structural stability report greater satisfaction across life domains (Liu et al., 2024). Understanding how the externality of happiness interacts with neophobic tendencies and family harmony to shape family life satisfaction thus provides a holistic perspective on how individual cognitive styles intersect with relational dynamics.

Theoretical framework

The relationships between neophobia, externality of happiness, family harmony, and family life satisfaction are grounded in two complementary theoretical approaches: Family Systems Theory (Minuchin et al., 2021) and Self-Determination Theory (Ryan & Deci, 2000). According to Family Systems Theory, each family member's behavior and emotional regulation are shaped by interdependent relationships within the system, which constantly strives for a state of homeostasis (Minuchin et al., 2021). To be more precise, neophobia acts as a resistance to novelty that can function as a systemic stabilizer. Individuals with neophobic tendencies often avoid behaviors that might disrupt established family patterns, thereby paradoxically reinforcing family harmony by maintaining a predictable and conflict-averse environment (Choy et al., 2025). This perspective suggests that the family unit is a holistic system where individual avoidance strategies like neophobia are not just isolated traits. Instead, these strategies are directly influenced by and contribute to the emotional balance and adaptive boundaries of the family (Kyriazos & Poga, 2025). Thus, family harmony serves as a critical structure that either buffers or reinforces an individual's response to uncertainty and novelty.

Self-Determination Theory, on the other hand, suggests that well-being depends on the satisfaction of three basic psychological needs: autonomy, competence, and relatedness. The connection between neophobia and the externality of happiness can be understood through the lens of extrinsic regulation. When neophobia inhibits an individual's autonomy and their capacity to explore new experiences, it effectively thwarts the need for competence. Consequently, individuals are likely to compensate for this lack of internal growth by seeking happiness in external factors such as social approval, material success, or rigid external conditions (Cerin et al., 2023). This shift from internal agency to external dependency reflects a move away from intrinsic resources, making well-being contingent on circumstances outside the individual's control. Within this framework, the externality of happiness acts as a cognitive bridge where individuals with low family harmony become even more susceptible to this external orientation, which ultimately diminishes their overall family life satisfaction. Together, these theories provide a robust mechanism for modeling how individual dispositional fears flow through relational processes to shape subjective well-being.

The current study

Nowadays, the factors that determine the quality of life of individuals and families are gaining more and more importance. When family life satisfaction is considered within the framework of the interaction of family harmony and individual psychological factors, it provides important findings both theoretically and practically. To provide a clearer conceptual focus, this study proposes a framework where neophobia acts as a primary individual disposition that influences family well-being through psychological and relational pathways. Specifically, the present study aims to investigate a longitudinal serial mediation model in which neophobia predicts family life satisfaction through externality of happiness and family harmony. Moving beyond cross-sectional associations, this study employs a Cross-Lagged Panel Model (CLPM) to rigorously test the temporal precedence and longitudinal stability of these variables over two waves. It has been shown in the literature that healthy family dynamics positively affects the general happiness of individuals. However, the role of neophobia, which is defined as individuals' resistance to new ideas and change, in this process has not yet been sufficiently examined. Moreover, the concept of externality of happiness contributes to our understanding of how individuals and families experience life satisfaction in terms of social and environmental factors. This study aims to examine the indirect and temporal effects of individual psychological dispositions and family interactions on family life satisfaction. In particular, it will explore the associations between neophobia, the attribution of happiness to external sources, family harmony, and family life satisfaction within a temporal framework. In this way, the holistic and sequential relationships of both individual-level resistance tendencies and intra-family relationships on family life satisfaction will be more comprehensively explored. Within this context, the following hypotheses (H) will be tested in this study:

H1. Neophobia at T1 (Time 1) will predict Externality of Happiness at T2 (Time 2).
H2. Neophobia at T1 (Time 1) will predict Family Harmony at T2 (Time 2).
H3. Neophobia at T1 (Time 1) will indirectly predict Family Life Satisfaction at T2 (Time 2).

Method

Participants and procedure

A two-wave longitudinal design was employed, with a five-month interval between measurements, starting with the first measurement in the third week of September 2024 and ending with the second measurement in the third week of February 2025. Ethical approval for the study was obtained from the Yıldız Technical University Institute of Social Sciences Ethics Committee (document number: E-20250104136). All participants provided informed consent electronically

prior to participation. Participation was voluntary and anonymous, and no compensation was offered. A convenience sampling method was used, where participants were recruited through the researchers' academic and social media networks. Data were collected using a web-based form. The link to the form was distributed through academic and social networks accessible to the researchers. Inclusion criteria required participants to be adults aged 18 years or older. Cases with incomplete responses or identifiers that did not match between waves were excluded from the final analysis. Participants were matched across waves using self-generated identification codes (e.g., initials and birth date digits). Matching was achieved through these self-generated identification codes. In Wave 1, 427 participants responded. In Wave 2, 353 participants completed the questionnaire. After excluding unmatched cases, the final sample consisted of 315 Turkish adults (M_{age} = 24.14, SD = 3.56). The participants of the research group consisted of 57.5% female (n = 181) and 42.5% male (n = 134) participants. Regarding marital status, 73.3% (n = 231) of the participants were married, while 26.7% (n = 84) were single.

Measures

Neophobia scale This scale was adapted by Karataş Yücel (2021) to measure fear of new environments, situations and people. The scale consists of 8 items (e.g. "*I'm uncomfortable with new situations*") across two sub-dimensions, rated on a 7-point Likert scale, with 1 'strongly disagree' and 7 'strongly agree'. Higher scores indicate greater neophobia. The internal consistency was found as α = 0.84 in the adaptation study. The internal consistency was found as for T1 α = 0.86 and for T2 α = 0.87 in the present study.

Family harmony scale This scale was adapted by Duman Kula et al. (2018). The unidimensional scale consists of 5 items (e.g. "*My family members get along well*") rated on a 5-point Likert scale, with 1 'strongly disagree' and 5 'strongly agree'. Higher scores indicate greater family harmony. The internal consistency was found as α = 0.91 in the adaptation study. The internal consistency was found as for T1 α = 0.94 and for T2 α = 0.94 in the present study.

Externality of happiness scale This scale was originally developed by Joshanloo (2017) to measure the extent to which individuals perceive their happiness as beyond their control and mostly dependent on uncontrollable external factors. The scale was adapted to Turkish by Yildirim et al. (2018). The unidimensional scale consists of 4 items (e.g. "*My happiness is determined by external factors*") rated on a 7-point Likert scale, with 1 'strongly disagree' and 7 'strongly agree'. The internal consistency was found as α = 0.80 in the adaptation study. The internal consistency was found as for T1 α = 0.81 and for T2 α = 0.85 in the present study.

Satisfaction with family life scale This scale was adapted by Karçkay et al. (2024) to measure overall family satisfaction by comparing family living conditions with personal standards and expectations. This unidimensional scale consists of 5 items (e.g. "*I'm satisfied with my family life*.") rated on a 7-point Likert scale, with 1 'strongly disagree' and 7 'strongly agree'. Total scores range from 5 to 35. Higher scores indicate that individuals are satisfied with their family life. The internal consistency was found as α = 0.93 in the adaptation study. The internal consistency was found as for T1 α = 0.91 and for T2 α = 0.94 in the present study.

Data analysis

In this study, SPSS Statistics 27 was used to compute descriptive statistics, reliability coefficients and correlation values, while path analysis was performed using AMOS Graphics. A two-wave CLPM was tested to examine the longitudinal relationships between neophobia, externality of happiness, family harmony, and family life satisfaction, and to determine how these variables at Time 1 predict changes in each other at Time 2. Before testing the structural model, longitudinal measurement invariance was examined to ensure that the constructs were measured consistently across Time 1 and Time 2. The results supported scalar invariance ($\Delta CFI < 0.010$ and $\Delta RMSEA < 0.015$), indicating that comparisons across time were appropriate. Following the suggestions received during the review process, the study hypotheses were tested using a Cross-Lagged Panel Model (CLPM) based on observed total scores. This path-analytical approach was preferred over latent variable modeling to ensure a parsimonious model and stable estimation of longitudinal effects given the sample size. Consequently, item parceling was not employed, and all variables were represented by their aggregate scores. Neophobia was treated as the independent variable, and family life satisfaction as the dependent variable.

Results

Preliminary analysis and correlation results

Table 1 shows descriptive information about the measures, including means, standard deviations, skewness, kurtosis and reliability. All variables demonstrated acceptable levels of skewness and kurtosis, indicating normal distribution.

Table 1 Descriptive statistics, reliabilities and correlation findings

Variable	Descriptive Statistics				Correlations								
	Mean	SD	Skewness	Kurtosis	α	1	2	3	4	5	6	7	8
1. Neophobia T1	32.85	7.55	−0.08	−0.32	0.86	–							
2. Neophobia T2	32.10	8.05	−0.13	−0.57	0.87	0.60**	–						
3. Family Harmony T1	18.49	4.44	−0.24	−0.71	0.94	−0.02	−0.06	–					
4. Family Harmony T2	18.63	4.43	−0.34	−0.66	0.94	0.11*	−0.03	0.71**	–				
5. Externality of Happiness T1	13.25	4.61	0.22	−0.55	0.81	0.37**	0.22**	−0.08	0.01	–			
6. Externality of Happiness T2	13.32	4.65	0.38	−0.14	0.85	−0.28**	−0.50**	−0.18**	−0.16**	0.51**	–		
7. Satisfaction with Family Life T1	23.56	6.24	−0.25	−0.64	0.91	0.05	−0.03	0.84**	0.69**	−0.13*	−0.22**	–	
8. Satisfaction with Family Life T2	24.08	6.55	−0.30	−0.61	0.94	0.15**	−0.07	0.67**	0.87**	0.07	−0.12**	0.76**	–

* $p<.05$, ** $p<.01$, T1: Time 1, T2: Time 2

The correlation analysis revealed several significant longitudinal associations. Neophobia at T1 was strongly correlated with Neophobia at T2 ($r = .60$, $p < .01$). Family Harmony at T1 was strongly associated with Family Harmony at T2 ($r = .71$, $p < .01$), and Satisfaction with Family Life at T1 showed high stability across time with Satisfaction with Family Life at T2 ($r = .76$, $p < .01$). Externality of Happiness at T1 was also significantly correlated with Externality of Happiness at T2 ($r = .51$, $p < .01$). Regarding cross-sectional associations, Neophobia at T1 was positively related to Externality of Happiness at T1 ($r = .37$, $p < .01$), whereas Neophobia at T2 was positively associated with Externality of Happiness at T1 ($r = .22$, $p < .01$) and negatively associated with Externality of Happiness at T2 ($r = -.50$, $p < .01$). Externality of Happiness at T2 was negatively correlated with Family Harmony at T1 ($r = -.18$, $p < .01$) and Family Harmony at T2 ($r = -.16$, $p < .01$). In addition, Satisfaction with Family Life at T1 was positively associated with Family Harmony at T1 ($r = .84$, $p < .01$) and Family Harmony at T2 ($r = .69$, $p < .01$), while it was negatively related to Externality of Happiness at T1 ($r = -.13$, $p < .05$) and Externality of Happiness at T2 ($r = -.22$, $p < .01$). Satisfaction with Family Life at T2 was positively associated with Family Harmony at T1 ($r = .67$, $p < .01$), Family Harmony at T2 ($r = .87$, $p < .01$), and Neophobia at T1 ($r = .15$, $p < .01$), whereas it was negatively related to Externality of Happiness at T2 ($r = -.12$, $p < .01$). These correlations provided the empirical basis for testing the proposed structural cross-lagged panel model. Detailed information is given in Table 1.

Cross-lagged panel model analysis

In line with the recommendations received during the review process, a two-wave Cross-Lagged Panel Model (CLPM) was tested using observed total scores. The CLPM presented a good fit indices to the data. Figure 1 demonstrates that the CLPM fit was acceptable: $\chi^2/df\,(9, N=315)=4.104$, $p<.001$, CFI = 0.973, IFI = 0.973, AGFI = 0.961, NFI = 0.967 and SRMR = 0.0416. The model estimated both autoregressive and cross-lagged paths to examine the longitudinal relationships among the study variables. The autoregressive paths, representing the stability of the constructs over the five-month period, were all significant: Neophobia ($\beta = 0.58$, $p < .01$), Family Harmony ($\beta = 0.65$, $p < .01$), Externality of Happiness ($\beta = 0.50$, $p < .01$), and Family Life Satisfaction ($\beta = 0.72$, $p < .01$). To provide a stronger comparison of directionality, reciprocal paths were also tested. However, the path from Family Harmony at T1 to Neophobia at T2 was not statistically significant ($p > .05$), supporting the hypothesized direction of influence. As shown in Fig. 1, Neophobia at T1 significantly predicted Family Harmony at T2 ($\beta = 0.08$, $p < .05$); Family Harmony at T1 significantly predicted Externality of Happiness at T2 ($\beta = -0.13$, $p < .01$); and Externality of Happiness at T1 significantly predicted Family Life Satisfaction at T2 ($\beta = 0.15$, $p < .01$).

Discussion

The family systems approach suggests that the psychological and emotional processes of individuals are shaped by the interaction dynamics within the family (Roberts & Simmons, 2024). According to this approach, family members are mutually dependent on each other and a change in an individual can affect the functioning of the whole system. This study examined the longitudinal sequence from neophobia to family life satisfaction over a five-month period. Utilizing a Cross-Lagged Panel Model (CLPM), our findings confirm that neophobia acts as a significant antecedent that initiates a ripple effect: it shapes family harmony and the perception of happiness, which ultimately determines family life satisfaction. The findings of the study are discussed within this framework.

To begin with, first hypothesis examined is that neophobia will longitudinally predict the family harmony (H1). According to the findings of the study, the first hypothesis was confirmed. Neophobia positively predicted family harmony longitudinally. Although these two concepts were not directly taken into consideration in previous studies, the relationship between neophobia and family dynamics was

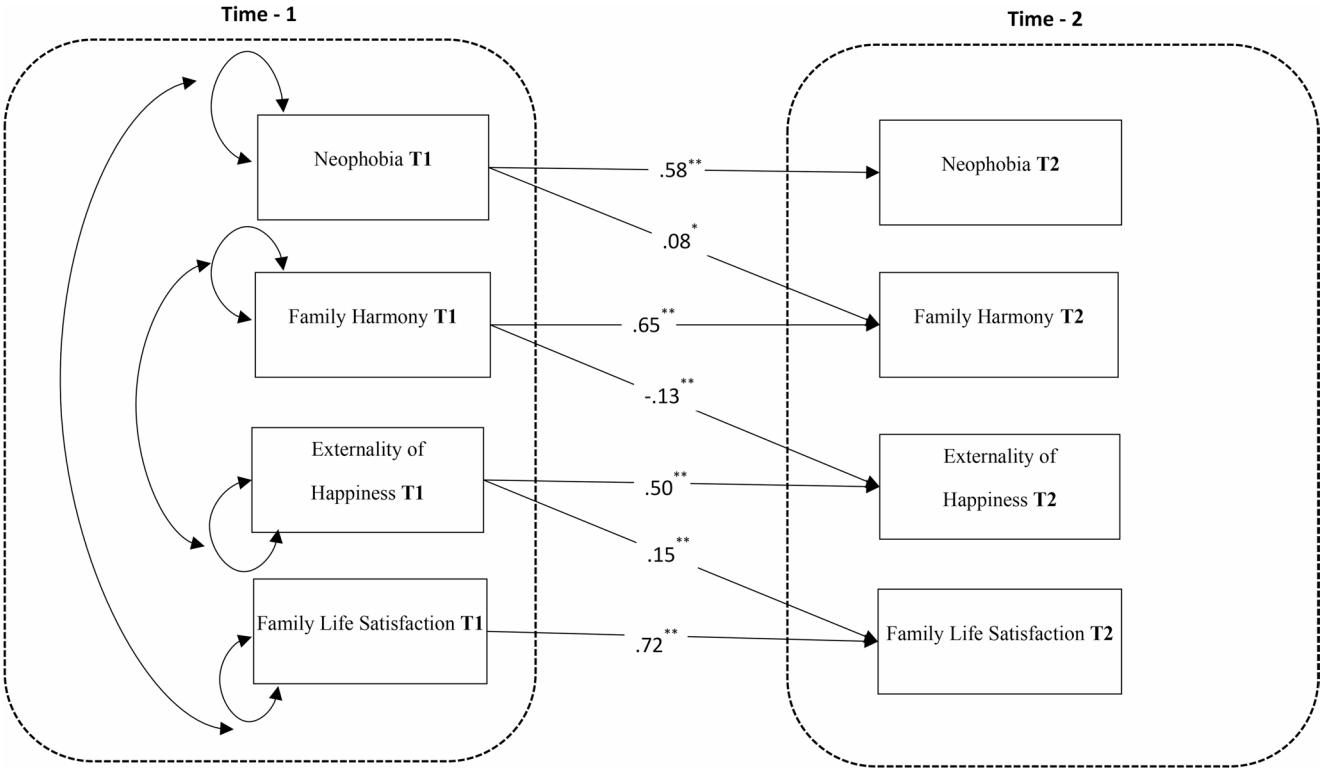


Fig. 1 The longitudinal cross-lagged model. Notes. * $p < .05$, ** $p < .01$

examined. And in this study, a different result was found from other studies. In previous studies, there is a negative relationship between protective dynamics in the family system and neophobia (Di Nucci et al., 2022). This finding is evaluated within the framework of family systems theory and it is seen that mutual interactions gain importance. Family systems, by their nature, try to maintain homeostasis, i.e. emotional balance. Individuals with high fear of innovation may contribute to the continuity of existing family dynamics by avoiding radical changes in the system (Cerin et al., 2023). These individuals may tend to preserve the structure and habits they have and may show more commitment to family values and traditions, thus developing resistance to change (Leotti et al., 2023). Consequently, they may start to attach importance to the existing family organization. When evaluated in the context of Minuchin's Structural Family Therapy, it is suggested that boundaries in family systems can be either very strict or very loose (Minuchin et al., 2021). It can be said that in families with individuals with high neophobia, there are generally stricter boundaries and this may increase internal cohesion by strengthening the bonds between family members (Allen & French, 2023). However, these rigid boundaries may also prevent external threats and change. This may increase the tendency of individuals to maintain the status quo within the family by avoiding new experiences and make relationships more predictable by minimizing conflicts. Notably, individuals who are committed to traditional values and family norms may show higher harmony in a family environment that adopts the same tendencies. If the family structure also has a structure that avoids innovation and strictly adheres to traditional values, a stronger harmony may develop between the individual and the family (Clennin et al., 2024). This suggests that neophobic tendencies may foster relational predictability; by minimizing exposure to disruptive novelties, these individuals potentially reduce interpersonal friction and enhance overall family synchrony. As a result, individuals with high neophobia may become part of a system that resists change by contributing to maintaining the balance within the family.

Regarding H2, the results demonstrated that family harmony significantly and negatively predicts the externality of happiness over time. According to the findings of the study, the second hypothesis was confirmed. Family harmony negatively predicted externality of happiness longitudinally. In the literature, there are various studies addressing the relationship between family dynamics and happiness. However, the relationship between the family harmony and externality of happiness has not been directly examined before. However, when the studies on family dynamics are generally analyzed, it is seen that there are consistent findings. For example, happiness levels of families are significantly affected by external factors (Chen et al., 2025). When the findings obtained from this study are evaluated within the

framework of Structural Family Therapy, they are consistent with the literature and the theoretical structure. According to Structural Family Therapy, low family harmony may mean that the boundaries between individuals are unclear or roles are not functionally distributed (Singh et al., 2025). Externalization of happiness may be associated with the individual's perception of emotional support within the family as not enough, conflictual or not seeing the family as the main source of security. Therefore, if the boundaries within the family are diffuse or rigid, family harmony may decrease and this may lead to externalization of happiness. When there is a lack of balance and flexibility within the family, individuals may seek their happiness from external sources, and increased family stress may further strengthen this tendency. The lack of supportive mechanisms within the family may cause individuals to base happiness on factors such as social environment, material success or external approval. Individuals who have difficulties in adapting to stressful life events may also fail to develop their internal resources (Ren et al., 2024). This may increase the tendency of individuals to attribute their happiness largely to external factors. On the other hand, individuals who have a strong perception of social support within the family and can adapt tend to attribute their happiness more strongly to internal processes (Izzo et al., 2022). It is thought that this effect may vary depending on cultural differences. Especially in collectivist societies, individuals' perception of happiness is more closely associated with their harmony with family and social environment.

Furthermore, third hypothesis examined in the study is that the externality of happiness will longitudinally predict family life satisfaction (H3). According to the findings of the study, the third hypothesis was confirmed. Externality of happiness positively predicted family life satisfaction longitudinally. However, the relationship between the externality of happiness and family life satisfaction has not been directly examined before. However, when the studies on family dynamics are generally analyzed, it is seen that there are consistent findings. For example, family life satisfaction levels are significantly affected by external factors (Villanueva-Moya & Expósito, 2025). A high level of externalization of happiness may contribute to individuals seeing the family as the main source of their happiness and, accordingly, increase their family life satisfaction (Koçak et al., 2021). Individuals who base their happiness on family relationships and maintain harmonious relationships with their families are likely to perceive higher satisfaction with family life. When evaluated within the framework of the family systems approach, individuals who attribute their happiness to external factors can reflect these emotional gains to their family life when they have positive experiences in the external environment.

One key finding is that family harmony emerged as a negative longitudinal predictor of the externality of happiness, while the externality of happiness was found to be positively associated with family life satisfaction over time. This suggests that although family harmony may support internal attributions of happiness, individuals who tend to externalize their happiness may still report greater family life satisfaction. These seemingly contradictory findings likely arise from distinct psychological mechanisms: family harmony supports a stable structure for independent happiness evaluations, whereas externalized happiness heightens sensitivity to positive family inputs. This cyclical dynamic may be particularly pronounced in collectivist cultures like Türkiye, where family unity influences happiness perceptions (Özmen et al., 2021). In the Turkish cultural context, which emphasizes interdependence and loyalty to family traditions, resistance to novelty may not be perceived as a maladaptive trait. Instead, it may reflect a commitment to the family as a whole where maintaining established routines and resisting external disruptions are valued for preserving the emotional homeostasis of the system. Furthermore, in such societies, happiness is often conceptualized as a relational rather than an individualistic construct. Therefore, individuals who attribute their happiness to external sources such as family stability and social approval may report higher life satisfaction because their personal well-being is inherently tied to the collective harmony of the system (Güler & Yıldırım, 2022).

Limitations and implications

Despite the fact that this study reveals important longitudinal findings between individual dynamics and family dynamics, it has some limitations. Firstly, although a two-wave longitudinal design was used, the five-month interval and the number of waves may not be sufficient to fully capture long-term causal mechanisms. Consequently, while our findings provide evidence for temporal precedence, they should be interpreted with caution regarding definitive causal inference, as unmeasured third variables or confounding factors might still influence the observed relationships. The use of longitudinal designs with more than two waves in future studies may allow for a more detailed examination of temporal dynamics and causal pathways. Secondly, since the sample consisted only of emerging adults and adults in Türkiye, the generalizability of the findings to different age groups, cultural contexts and family structure is limited. Hence, cross-cultural comparisons and studies with more heterogeneous samples are recommended. Thirdly, the current study utilized observed variables in the path analysis rather than a latent structural equation modeling approach. As a result, measurement

error was not statistically controlled, which may have led to slightly biased estimates of the path coefficients. Future studies employing latent variable modeling with larger samples could provide more precise estimations by accounting for measurement error. Fourthly, although the longitudinal serial mediation model was tested in this study, important psychological and relational variables such as emotional regulation, family functioning or cultural values were not included in the model. In future studies, the establishment of more holistic models including such variables will contribute to the literature. Finally, since the study was based only on self-report scales, the possibility of social liking bias cannot be completely excluded. For this reason, the validity of the measurements can be increased by using multiple data sources or behavioral measurements in future studies.

The findings of this study suggest that individuals' avoidant attitude towards innovation and their level of seeking happiness from external factors may be significantly related to family dynamics. In particular, the relationships between neophobic reactions and weak family harmony provide important patterns that may be reflected in family life satisfaction. In this direction, intervention strategies can be developed to support individuals' ability to cope with novelty in psychological counselling practices. In the intervention process, it may be useful to make a more holistic evaluation by taking into account the interactions within the family. Focusing on the intrinsic motivation sources of individuals based on self-determination theory may be an approach that has the potential to reduce the externality of happiness. Within the framework of family systems approach, feedback mechanisms in psychological counselling processes can be discussed. In addition, improving the quality of communication and strengthening emotional bonds between family members through family-oriented studies can create an environment that supports individual well-being.

Conclusion

In this study, the relationships between neophobia, externality of happiness, family harmony and family life satisfaction were examined with a two-time serial mediation model. The findings show that neophobia levels at T1 are related to externality of happiness and family harmony levels at T2. Moreover, a negative relationship was observed between externality of happiness and family harmony, and a positive relationship was observed between family harmony and family life satisfaction. This study revealed the multilayered effects of individual tendencies such as neophobia and externality of happiness not only at the individual level but also extending to family life satisfaction through relational patterns within the family system. The findings show how mediating mechanisms such as externality of happiness and family harmony play a critical role in individual-family interaction. Especially in the context of collectivist cultures, the interaction between individual characteristics and family functioning can be decisive for relational outcomes such as adjustment and satisfaction. In collectivist cultures, the emphasis on relational stability and emotional attachment may pave the way for neophobic tendencies to be associated with family harmony. On the other hand, tendencies towards the externality of happiness may in some cases be associated with a weaker experience of family ties. These findings provide implications on how individual characteristics can be seen together with relational processes. It should be taken into consideration that the relationships discussed may differ according to the cultural and familial context in which the individuals live. Future research may examine the effects of individual tendencies such as neophobia on different family dynamics more comprehensively by testing the replicability of this model in different cultural contexts. In addition, strengthening modifiable mediating processes such as externality and adaptation through intervention-based studies may contribute to increasing both individual and relational well-being of individuals.

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Authors' Contribution Ali Berke Körün was responsible for the writing, data collection, data analysis and reporting of the article. Seydi Ahmet Satıcı supervised the writing, data analysis and reporting of the article.

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Data availability Data will be available on request.

Declarations

Ethics approval and consent to participate This research was ethically approved by Yıldız Technical University Institute of Social Sciences Ethics Committee with document number E-20250104136. Informed consent was obtained from all the individual participants that were included in the study.

Consent for publication Consent for scientific publication has been obtained from all participants.

Competing interests No conflict of interest exists for this manuscript for any of the authors.

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