Relationship between Malls' Design and Customer Purchase Intention: The Mediating Role of Emotion

Pouriya Shambayati[®], Hesam Shambayati[®]

Department of Architecture, Gorgan Branch, Islamic Azad University, Gorgan, Iran.

*Corresponding Author Email: Poriyashambayati@gmail.com

ABSTRACT: Background and Aim: This study aims to explore how the interior design of a mall influences customers' purchase intentions, while also examining the mediating role of emotions.

Methods: A descriptive-correlation approach was employed in the current investigation, utilizing structural equation modeling. The study consisted of 486 customers (297 women) of different malls in Tehran, aged between 17 and 56 years (with a mean age of 35.11±8.17 years), who willingly participated. The research was conducted in Tehran, Iran, in the year 2023. The participants were selected through a convenience sampling method. Standard questionnaires were used to collect data. Pearson correlation test and the structural equation modeling were used for data analysis.

Results: Results reveled that interior design significantly affected customers' purchase intentions (T=5.954). Moreover, interior design significantly affected emotions (T=4.528). Furthermore, emotions affected customers' purchase intentions (T=3.964). Finally, emotions have significantly mediated the relationship between interior design and customers' purchase intentions (P<0.001). Results of model fit indicated that the research model has good fit.

Conclusion: Based on the results of this study, it is advised that stakeholders concentrate on improving and highlighting the aspects that shape the interior design of shopping centers. Furthermore, there should be a stronger emphasis on factors that evoke positive emotions in customers.

Keywords: Design, Customer, Purchase, Emotion, Mall

INTRODUCTION

Urban societies in the present day, particularly in developing nations, are encountering a multitude of social challenges and predicaments. The stress stemming from economic and social issues, the relentless pursuit of work and obligations to sustain urban living expenses, particularly within the middle and lower-income urban strata, the scarcity of both time and space for recreational activities and leisure (Dana et al. 2021, 2023). Mental health disorders triggered by the routine of urban existence, the emergence of pollution-related problems in cities, as well as the absence of recreational and sports facilities and other urban life issues, all contribute significantly to the decline in the quality of life for individuals residing in major cities, particularly in developing nations. All of these challenges and issues have ultimately given rise to numerous psychological and behavioral problems and disorders within society. Consequently, this leads to harm and social issues (Davidson,

2003; Ellis et al. 2013; Faircloth, 2017; Seyedi Asl et al. 2016, 2021). Conversely, entertainment is deemed a fundamental aspect of human life. Humans require amusement and recreation to alleviate mental stress, which greatly impacts their mental well-being (Bandura, 1997; Baniasadi, et al. 2018; Chaharbaghi, et al. 2022; Chris, et al. 2010; Conner & Davidson, 2003; Zaborova et al. 2023). However, as previously mentioned, the pressures arising from work and obligations, coupled with the lack of time and space for such activities, have become constraining factors. In contemporary urban societies, shopping and exploring commercial spaces have become enjoyable activities for city residents. With limited time and space for other forms of recreation, especially for the middle and low-income groups, individuals visit commercial areas for shopping, sightseeing, and leisure. Malls and commercial complexes play a crucial role in enhancing the environment to attract visitors seeking both shopping and entertainment (Ghorbani et al. 2020a, 2020b). This is achieved through creating a diverse and appealing business and store environment, as well as offering entertainment centers and services within commercial spaces. Additionally, welfare services and facilities serve as supplementary attractions to draw more people. The array of services in commercial, recreational, and welfare sectors contributes to the growing prosperity of malls (American Psychological Association, 2014; Sadeghipor et al. 2021; Vasconcelos et al. 2013).

Today, with the growing trend of people using internet services and engaging in online shopping, along with the proliferation of commercial complexes in urban areas, it is evident that fewer individuals are inclined to physically visit these spaces compared to the past. Moreover, some of these complexes lack the necessary appeal to attract customers (Hazrati et al. 2022; Herrick & Ainsworth, 2003; Seyyedrezaei et al. 2021). Therefore, it can be argued that the key parameters in establishing an appealing commercial space are its attractiveness and the factors influencing customer satisfaction. While elements like the availability of fast-food outlets, food courts, cinemas, and other amenities can enhance attractiveness and customer contentment, the presence of a hypermarket sets a commercial center apart from its counterparts (Hosseini, et al. 2022; Khosravi, et al. 2023; Shafaei et al. 2024). Hypermarkets offer a wide array of products to cater to diverse customer needs, making them highly appealing to a broad customer base (Abdoshahi & Ghorbani 2022; Ohler et al. 2010; Ramachandra et al. 2013; Taghva et al. 2020). Typically situated in strategic locations, hypermarkets are positioned at the end of corridors to encourage visitors to explore smaller stores along the way. The design of hypermarkets prioritizes customer comfort and well-being, ultimately boosting satisfaction levels and enhancing the overall appeal of the commercial space. Additionally, certain factors play a crucial role in increasing the attractiveness and liveliness of commercial complexes, such as interior design, lighting, corridor width, music, entertainment areas, parking facilities, and even the name of the complex itself (Afsanepurak et al. 2012; Sadeghipor & Aghdam, 2021a, 2021b; Taso et al. 2014). Based on the information provided, it is evident that the functional diversity and spatial attractiveness of a commercial complex are crucial factors for its vitality. Unlike single-functional spaces, a multi-dimensional commercial space allows for recreation, rest, socializing, and shopping, making it more appealing to a wider audience (Letvak et al. 2012; Masten, 2001; Shafaei et al. 2024). This contrast is particularly noticeable when comparing it to one-dimensional spaces such as rows of shops in a market, which lack the same range of amenities and opportunities for interaction. This study aims to explore how the interior design of a mall influences customers' purchase intentions, while also examining the mediating role of emotions.

METHODS

A descriptive-correlation approach was employed in the current investigation, utilizing structural equation modeling. The study consisted of 486 customers (297 women) of different malls in Tehran, aged between 17 and 56 years (with a mean age of 35.11 ± 8.17 years), who willingly participated. The research was conducted in Tehran, Iran, in the year 2023. The participants were selected through a convenience sampling method.

Jong Mei et al. developed the standard store environment questionnaire in 2008, consisting of four questions in one dimension (Shafaei et al. 2024). The questionnaire utilizes a five-point Likert scale (ranging from very little to very much) and has a Cronbach's alpha of 0.819. Store design factors are divided into functional (store layout, showcase, comfort, and privacy) and aesthetic (architecture, color, materials, and style) elements. These elements help retailers establish the store's identity and enhance customer shopping

experiences. Social factors encompass the individuals in the store environment, such as the number, type, and behavior of salespeople and customers. In this study, Cronbach's alpha was calculated for this scale to be 0.89.

The purchase intention of customers is assessed using the questionnaire developed by Letvak et al. (2012). This questionnaire comprises 19 five-choice questions and is scored using a five-point Likert scale, with options ranging from 1=very low to 5=very high. A score of 1 indicates the lowest level of purchase intention, while a score of 5 indicates the highest level. The questionnaire is composed of five subscales, each defined by a set number of questions. The reliability and validity of this questionnaire were determined using Cronbach's alpha coefficient and confirmatory factor analysis. The questionnaire demonstrated high reliability, as evidenced by a Cronbach's alpha coefficient of 0.95.

Mehrabian and Russell's sentiment questionnaire from 1974 was utilized for assessing customers' sentiments (Khosravi, et al. 2023). This questionnaire aims to gauge an individual's emotions towards their environment. The PAD response dimensions introduced by Mehrabian and Russell in 1974 - pleasure, arousal, and dominance - serve as key measures in environmental psychology to capture people's emotional reactions to their surroundings. The standard sentiment questionnaire comprises 18 items and 3 subscales: pleasure (6 questions), arousal (6 questions), and dominance (6 questions), all designed to evaluate an individual's sentiments towards their environment. Scoring for the questionnaire is based on a nine-point Likert scale ranging from 4 to -4. To determine the score for each subscale, add up the total scores for each question within that specific subscale. This questionnaire demonstrated a Cronbach's alpha coefficient of 0.89, indicating high internal consistency.

We utilized SPSS-26 and Lisrel software to analyze the data. Descriptive statistics such as means and standard deviations were employed to characterize the variables. Pearson correlation test was conducted to assess the relationships between the variables. The structural equation method was applied to investigate the impact of interior design of a mall on customers' purchase intentions, while also examining the mediating role of emotions. The significance level was set at P < 0.05.

RESULTS

Descriptive data are presented in Table 1. Descriptive results show that in general the level of interior design is higher than the average. However, customers' purchase intentions and emotions were at medium level. The results of Kolmogorov-Smirnov tests revealed that all variables were normally distributed (all P>0.05). Results of Independent t tests showed that there were no significant differences between men and women in all variables of the study.

	Table 1. Descriptive Data		
	interior design	customers' purchase intentions	emotions
Mean	2.98	25.75	41.08
SD	1.06	6.99	11.71

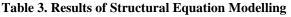
Bivariate relationships between interior design with customers' purchase intentions and emotions are demonstrated in Table 2. Results revealed significant direct relationship between interior design and customers' purchase intentions (P<0.001). Moreover, interior design was directly and significantly associated with emotions (P<0.001). Finally, emotions climate was directly and significantly associated with customers' purchase intentions (P<0.001).

	I		
	1	2	3
1. interior design	-	-	-
2. customers' purchase intentions	r=0.563 P<0.001	-	
3. emotions	r=0.418 P<0.001	r=0.357 P<0.001	-

Table 2. Results of Bivariate Relationships between Variables

Table 3 and Figure 1 show the results of structural equation modelling. Results reveled that interior design significantly affected customers' purchase intentions (T=5.954). Moreover, interior design significantly affected emotions (T=4.528). Furthermore, emotions affected customers' purchase intentions (T=3.964). Finally, emotions have significantly mediated the relationship between interior design and customers' purchase intentions (P<0.001). Results of model fit are presented in Table 4 and indicated that the research model has good fit.

Tuble of Results of Structural Equation filoading			
	Path	β	T-value
1	interior design => customers' purchase intentions	0.548	5.954
2	interior design => emotions	0.569	4.528
3	emotions => customers' purchase intentions	0.410	3.964
		Z	P-value
4	interior design => emotions => customers' purchase intentions	9.684	P<0.001



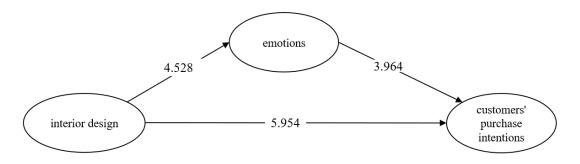


Figure 1. Structural Equation Modelling in the form of T-Values

Table 4. Results of Model Fit	
-------------------------------	--

Index	Optimal Range	Obtained Value	Conclusion
RMSEA	< 0.08	0.07	Good fit
X^2 / df	< 3	2.96	Good fit
RMR	Closer to 0	0.02	Good fit
NFI	> 0.9	0.95	Good fit
CFI	> 0.9	0.94	Good fit

DISCUSSION

This study aims to explore how the interior design of a mall influences customers' purchase intentions, while also examining the mediating role of emotions. Results reveled that interior design significantly affected customers' purchase intentions. Moreover, interior design significantly affected emotions. Furthermore, emotions affected customers' purchase intentions. Finally, emotions have significantly mediated the relationship between interior design and customers' purchase intentions. The study revealed that the primary factors of perceived value, such as pleasure-seeking and utilitarian shopping, significantly influence the in-store experience for consumers. Given the importance of these factors, it is advisable for retail managers in Iran to focus on enhancing the overall shopping experience in order to address existing industry shortcomings and gain a sustainable competitive advantage (Taso et al. 2014; Dana et al. 2021, 2023). Effectively presenting the value of products is crucial for both consumers and marketers, as highlighted by the research findings. Additionally, the design and layout of products were found to have a notable impact on the in-store experience, particularly in influencing consumer behavior and immediate purchase decisions (Hazrati et al. 2022; Herrick & Ainsworth, 2003; Seyyedrezaei et al. 2021).

The appropriate design and layout play a crucial role in shaping the mental image and overall experience for customers in the store. These subtle rules, from the store's entrance door design to the arrangement of shelves, lighting, and colors, have a significant impact on customers' perceptions, emotions, and purchasing decisions. The store's layout creates a welcoming and visually appealing environment, promoting a sense of order and tranquility for customers, which in turn boosts their motivation and excitement to make purchases. Efficient product placement can also help minimize waste (Letvak et al. 2012; Masten, 2001; Shafaei et al. 2024). Positive customer experiences are often rooted in interactions with knowledgeable and attentive employees, who play a key role in enhancing customer satisfaction. Establishing a friendly and trustworthy atmosphere between consumers and employees is crucial, often achieved through direct communication and personal attention. Research findings support the notion that a strong brand presence positively influences the shopping experience (Bandura, 1997; Baniasadi, et al. 2018; Chaharbaghi, et al. 2022; Chris, et al. 2010; Conner & Davidson, 2003; Zaborova et al. 2023).

The creation of net brand value for all products, purchases, services, and consumption experiences occurs during consumer interactions with the store and its goods. The fifth hypothesis focuses on the impact of word-of-mouth advertising on customer experience. Previous research has shown the significant role of word-of-mouth advertising in influencing consumer decision-making and shaping positive and negative customer experiences. Therefore, it is essential for goods and store managers to cultivate a consumer community through effective word-of-mouth advertising that enhances the brand (Taso et al. 2014). Providing appropriate facilities can enhance customer satisfaction and experience within a shopping environment. These facilities encompass the customer's entire journey from entering the store or shopping center to leaving it, including suitable and secure car parking, easy transportation and movement for people, seating areas, accommodations for disabled individuals, and attractive product displays. Sales promotion is a crucial marketing mix tool that can greatly impact marketing strategies and customer attraction (Shafaei et al. 2024).

The total brand value of products, purchases, services, and consumer experiences is established during the interaction between the consumer and the store and its products. The fifth hypothesis focuses on the impact of word-of-mouth advertising on customer experiences. Previous studies have shown that word-of-mouth advertising plays a significant role in consumer decision-making and shaping positive or negative customer experiences. Therefore, product and store managers should cultivate a community of consumers through effective word-of-mouth advertising that enhances brand perception (Ghorbani et al. 2020a, 2020b). Providing appropriate amenities can enhance customer satisfaction and experience within a shopping environment. These amenities range from the moment a customer enters the store or shopping center until they leave, including adequate parking facilities, easy transportation, seating areas, accommodations for disabled individuals, attractive product displays, and more. Sales promotions are key components of the marketing mix that can greatly influence marketing strategies and customer attraction. Mall-goers are not merely shoppers; they engage shopping as a form of symbolic resistance against social inequalities, asserting power through virtual ownership of products and stores, and seeking to revitalize their lifestyles through leisurely shopping experiences. Ultimately, it is the events organized by mall and store managers that can transform casual visitors into loyal customers. In essence, individuals gather at places like shopping centers for purposes beyond shopping, such as leisurely strolls, and it is the skill of mall and store managers to consistently increase foot traffic by utilizing effective tools and strategies (Seyyedrezaei et al. 2021).

CONCLUSION

To summarize, it is evident that interior design plays a vital role in influencing customers' buying decisions. Moreover, it is important to highlight that emotions can significantly amplify the impact of interior design on customers' purchase intentions. Therefore, based on the results of this study, it is advised that stakeholders concentrate on improving and highlighting the aspects that shape the interior design of shopping centers. Furthermore, there should be a stronger emphasis on factors that evoke positive emotions in customers.

REFERENCES

Abdoshahi, M., & Ghorbani, S. (2022). Effects of Playground Availability on Participation of Children in Physical Activity: The Role of Socioeconomic Status. *International Journal of School Health*, 9(3), 186-191. [Google Scholar] [Publisher] doi:10.30476/intjsh.2022.96051.1245

Afsanepurak, S. A., Bahram, A., Dana, A., Abdi. J. (2012). The effect of self-talk and mental imagery on self-

efficacy in throwing darts in adolescents. *International Research Journal of Applied & Basic Sciences*, 3(3), 594-600. [Google Scholar] [Publisher]

- American Psychological Association. (2014). *The Road to Resilience*. Washington, Dc: American Psychological Association. [Google Scholar] [Publisher]
- Bandura, A. (1997). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191–215. [Google Scholar] [Publisher] doi:10.1037/0033-295X.84.2.191
- Baniasadi, T., Namazizadeh, M., Sheikh, M. (2018). Attentional focus can affect sway in postural and suprapostural tasks in community-dwelling older adults. *The Annals of Applied Sport Science*, 6, 31–37. [Google Scholar] [Publisher]
- Chaharbaghi, Z., Baniasadi, T., & Ghorbani, S. (2022). Effects of Teacher's Teaching Style in Physical Education on Moderate-to-Vigorous Physical Activity of High-School Students: An Accelerometerbased Study. *International Journal of School Health*, 9(3), 143-150. [Google Scholar] [Publisher] doi:10.30476/intjsh.2022.95204.1224
- Chris, C., et al. (2010). Effects of yoga versus walking on mood, anxiety, and brain levels: A randomized controlled MRS study. *The Journal of Alternative and Complementary Medicine*, 16(11), 1145-1152. [Google Scholar] [Publisher] doi:10.1089/acm.2010.0007
- Conner, K. M., & Davidson, J. R. T. (2003). Development of a new Resilience scale: The Conner Davidson Resilience Scale (CD-RISC). Depression & Anxiety, 18, 76-82. [Google Scholar] [Publisher] doi:10.1002/da.10113
- Dana, A., Ranjbari, S., Chaharbaghi, Z., & Ghorbani, S. (2023). Association between Physical Activity and Motor Proficiency among Primary School Children. *International Journal of School Health*, 10(3), 128-135. [Google Scholar] [Publisher] doi:10.30476/intjsh.2023.98237.1295
- Dana, A., Ranjbari, S., Salehian, M. H., & Shayan Matin, P. (2021). Effects of Cognitive-Behavioral Therapy on Mental Health of High-School Students during COVID-19 Pandemic. *International Journal of School Health*, 8(4), 201-208. [Google Scholar] [Publisher] doi:10.30476/intjsh.2021.92100.1165
- Davidson, C. (2003). Development of a new resilience scale: The Connor Davidson resilience scale (CD-RISC). Journal of Depression and anxiety, 18, 76-82. [Google Scholar] [Publisher] doi:10.1002/da.10113
- Ellis, N., Randall, J., & Punnett, G. (2013). The effects of a single bout of exercise on mood and self-esteem in clinically diagnosed mental health patients. *Open Journal of Medical Psychology*, 2(3), 81-85. [Google Scholar] [Publisher] doi:10.4236/ojmp.2013.23013
- Faircloth, A. L. (2017). Resilience as a mediator of the relationship between negative life events and psychological well-being. *Electronic Theses & Dissertations*, 1373. [Google Scholar] [Publisher]
- Ghorbani, S., Ghanati, P., Dana, A., & Salehian, M. H. (2020a). The Effects of Autonomy Support on Observational Motor Learning. *Iranian Journal of Learning and Memory*, 3(11), 77-87. [Google Scholar] [Publisher] doi:10.22034/iepa.2021.242953.1195
- Ghorbani, S., Yadolahzadeh, A., Shakki, M., & Noohpisheh, S. (2020b). Association between Second to Fourth Digit Ratio with Handwriting Quality and Speed among Elementary School Children. International Journal of Pediatrics, 8(9), 12053-12060. [Google Scholar] [Publisher] doi:10.22038/ijp.2020.47498.3854
- Hazrati, Z., Ranjbari, S., Baniasadi, T., & Khajehaflaton, S. (2022). Effects of Social Support on Participation of Children with ADHD in Physical Activity: Mediating Role of Emotional Wellbeing. *International Journal of Pediatrics*, 10(10), 16880-16886. [Google Scholar] [Publisher] doi:10.22038/ijp.2022.64698.4899
- Herrick, C., & Ainsworth, A. (2003). Invest in yourself: Yoga as a self-care strategy. *Nurs-Forum*, 35(2), 32-36. [Google Scholar] [Publisher] doi:10.1111/j.1744-6198.2000.tb00996.x
- Hosseini, F. B., Ghorbani, S., & Rezaeeshirazi, R. (2022). Autonomy Support, Needs Satisfaction, Motivation, and Intention to Do Physical Activities in Adolescents: A Validation study. *International Journal of Pediatrics*, 10(2), 15399-15411. [Google Scholar] [Publisher] doi:10.22038/ijp.2021.55491.4370
- Khosravi, M., et al. (2023). Parenting styles, maladaptive coping styles, and disturbed eating attitudes and behaviors: a multiple mediation analysis in patients with feeding and eating disorders. *PeerJ*, 11, e14880. [Google Scholar] [Publisher] doi:10.7717/peerj.14880
- Letvak, S., Ruhm, C., & Mccoy, T. (2012). Depression in hospital-employed nurses. *Clinical Nurse Specialist*, 26(3), 177-182. [Google Scholar] [Publisher] doi:10.1097/nur.0b013e3182503ef0
- Masten, A. (2001). Ordinary Magic: Resilience Processes in Development. American Psychologist, 56(3), 227-38. [Google Scholar] [Publisher] doi:10.1037/0003-066X.56.3.227
- Mikkelsen, K., Štojanovska, L., Polenakovic, M., Bosevski, M., & Apostolopoulos, V. (2017). Exercise and mental health. *National Library of Medicine*, 106, 48-56. [Google Scholar] [Publisher] doi:10.1016/j.maturitas.2017.09.003
- Moradi, J., Bahrami, A., & Dana, A. (2020). Motivation for participation in sports based on athletes in team and individual sports. *Physical Culture and Sport, Studies & Research*, 85(1), 14–21. [Google Scholar] [Pulisher] doi:10.2478/pcssr-2020-0002
- Ohler, M., Forbes, D., & Kerr, M. (2010). Depression in nurses. *Canadian Journal of Nursing Research*, 42(3), 66-82. [Google Scholar] [Publisher]
- Ramachandra, P. U., Varambally, S., Philip, M., & Gangadhar, B. N. (2013), Effect of yoga therapy on anxiety and depressive symptoms and quality-of-life among caregivers of in-patients with neurological disorders at a tertiary care center in India: A randomized controlled trial. *Indian Journal of Psychiatry*, 55(3), 385-389. [Google Scholar] [Publisher] doi:10.4103/0019-5545.116304

- Sadeghipor, N., & Aghdam, B. H. (2021a). Investigating the effect of appropriate personal protective equipment on the stress level of care workers in the Covid19 epidemic. Iran. *Health Science Journal*, 3, 7. [Google Scholar] [Publisher]
- Sadeghipor, N., & Aghdam, B. H. (2021b). The effect of pesticides on child gender and the level of sexual activities in people exposed –Iran. MAR Gynecology, 1(4). [Google Scholar] [Publisher] doi:10.1027/MARGY.2021.0106
- Sadeghipor, N., Kabiri, S., & Aghdam, B. H. (2021). Investigating the pesticides impact on mental health of exposed workers – Iran. MAR Case Reports, 2(6). [Google Scholar] [Publisher] doi:10.1027/MARCR.2021.0164
- Seyedi Asl, S. T., Rahnejat, A. M., Elikaee, M. M., Khademi, M., Shahed-HaghGhadam, H., & Taghva, A. (2021). The role of resilience, positive/negative emotions, and character strengths in predicting burnout of military personnel. *EBNESINA*, 22(4), 4-13. [Google Scholar] [Publisher]
- Seyedi-Asl, S. T., Sadeghi, K., Bakhtiari, M., Ahmadi, S. M., Nazari-Anamagh, A., & Khayatan, T. (2016). Effect of group positive psychotherapy on improvement of life satisfaction and the quality of life in infertile woman. *International Journal of Fertility & Sterility*, 10(1), 105–112. [Google Scholar] [Publisher] doi:10.22074%2Fijfs.2016.4775
- Seyyedrezaei, S. H., Khajeaflaton, S., Ghorbani, S., & Dana, A. (2021). Relative Age Effects on Children's Handwriting: Role of Visual-Motor Integration. *International Journal of Pediatrics*, 9(1), 12775-12783. [Google Scholar] [Publisher] doi:10.22038/IJP.2020.52763.4179
- Shafaei, H., Najafzadeh, F., Shakki, M., & Ghorbani, S. (2024). Associations between Physical Activity and Quality of Life, Happiness, and Depression among Elderly Women. *Women's Health Bulletin*, 11(2), 104-111. [Google Scholar] [Publisher] doi:10.30476/whb.2024.101984.1276
- Shafaei, H., Rezaei, N., Mohammadi, S., & Ghorbani, S. (2024). Correlations between Physical Activity and Social Health, Moral Development and Physical Fitness among Middle School Students. *International Journal of School Health*, 11(2), 97-104. [Google Scholar] [Publisher] doi:10.30476/intjsh.2024.101704.1388
- Sharma, M. (2014). Yoga as an alternative and complementary approach for stress management: a systematic review. Evidence-Based Complementary & Alternative Medicine, 19(1), 59-67. [Google Scholar] [Publisher] doi:10.1177/2156587213503344
- Taghva, A., Seyedi Asl, S. T., Rahnejat, A. M., & Elikaee, M. M. (2020). Resilience, emotions, and character strengths as predictors of job stress in military personnel. *Iranian Journal of Psychiatry & Behavioral Sciences*, 14(2), e86477. [Google Scholar] [Publisher] doi:10.5812/ijpbs.86477
- Taso, C. J., Lin, H. S., Lin, W. L., Chen, S. M., Huang, W. T., & Chen, S. W. (2014). The effect of yoga exercise on improving depression, anxiety, and fatigue in woman with breast cancer: a randomized controlled trial. *The Journal of Nursing Research*, 22(3), 155-164. [Google Scholar] [Publisher] doi:10.1097/jnr.00000000000044
- Vasconcelos, A., França, I; Coura, A., Enders, B., Cartaxo, H., & Sousa, F. (2013). Self-care in neurogenic intestine in subjects with spinal cord injury: An integrative review. *Online Brazilian Journal of Nursing*, 12(4), 998-1010. [Google Scholar] [Publisher] doi:10.5935/1676-4285.20133692
- Zaborova, V., et al (2023). Associations between Physical Activity and Kyphosis and Lumbar Lordosis Abnormalities, Pain, and Quality of Life in Healthy Older Adults: A Cross-Sectional Study. *Healthcare* (*Basel*), 29, 11(19), 2651. [Google Scholar] [Publisher] doi:10.3390/healthcare11192651