Samsun Sağlık Bilimleri Dergisi,
Journal of Samsun Health Sciences
e-ISSN: 2791-9722, JSHS Ağustos 2025, 10(2): 251-266

Perceived Barriers and Facilitators to Exercise Adherence in People with Parkinson's Disease

Parkinson Hastalığı Olan Kişilerde Egzersize Bağlılığın Önündeki Algılanan Engeller ve Kolaylaştırıcılar

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Makale Bilgisi/Article Information

Makale Türü/Article Types: Araştirma Makalesi/Research Article
Geliş Tarihi/Received: 09 Mayıs/May 2025
Kabul Tarihi/Accepted: 29 Mayıs/May 2025
Yıl/Year: 2025 | **Cilt – Volume:** 10 | **Sayı – Issue:** 2 | **Sayfa/Pages:** 251-266

Atıf/Cite as: Akgün, İ., Yaşar, H., Duruk, Ü., Oğuz, S., Demirbüken, İ. "Perceived Barriers and Facilitators to Exercise Adherence in People with Parkinson's Disease" Samsun Sağlık Bilimleri Dergisi 10(2), Ağustos 2025: 251-266.

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https://doi.org/10.47115/jshs.1696263

PERCEIVED BARRIERS AND FACILITATORS TO EXERCISE ADHERENCE IN PEOPLE WITH PARKINSON'S DISEASE

ABSTRACT

Aim: The aim of this study was to examine the barriers and facilitators affecting participation in exercise programs among individuals with early-stage Parkinson's disease.

Method: This qualitative study included a focus group of 13 Parkinson's disease patients. Interviews were conducted by preparing semi-structured questions between 01.03.2021 and 01.05.2021. Sessions were recorded on online platforms (zoom, skype). Interviews were transcribed verbatim after the meeting and analysed using content analysis to identify key themes related to exercise adherence. This analysis quantified qualitative data by aggregating frequently occurring words and themes, revealing several significant factors influencing adherence to exercise programs.

Results: Overall, participants identified 15 barriers and 8 facilitators to exercise adherence. Four main themes were identified describing the factors that both hindered and facilitated exercise adherence. These themes consisted of body structure and function, participation, personal factors, and environmental factors. The top barriers were showing Parkinson's motor symptoms, previous low level of physical activity or low participation, transportation, and discomfort at seeing peers' symptoms progress while exercising in a group. On the other hand, awareness about the positive effects of exercise on Parkinson's disease motor and non-motor symptoms, education about the benefits of exercise, exercising with an expert, and professional support for exercise motivated exercise adherence in Parkinson's disease patients.

Conclusions and Recommendations: Exercise adherence is impacted by motor symptoms. However, educating patients about the benefits of exercise and providing regular guidance from physiotherapists were found to motivate exercise adherence by increasing patient belief that their motor symptoms will decrease.

Keywords: Barriers; Facilitators; Exercise; Parkinson's Disease.

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PARKİNSON HASTALIĞI OLAN KİŞİLERDE EGZERSİZE BAĞLILIĞIN ÖNÜNDEKİ ALGILANAN ENGELLER VE KOLAYLAŞTIRICILAR

ÖZ

Amaç: Bu çalışmanın amacı, erken evre Parkinson hastalığı olan bireylerin egzersiz programlarına katılımını etkileyen engelleri ve kolaylaştırıcı faktörleri incelemekti.

Yöntem: Bu nitel çalışma 13 Parkinson hastalarından oluşan bir odak grubu içermektedir. Görüşmeler 01.03.2021-01.05.2021 tarihleri arasında yarı yapılandırılmış sorular hazırlanarak gerçekleştirilmiştir. Oturumlar çevrimiçi platformlarda (zoom, skype) kaydedilmiştir. Görüşmeler toplantıdan sonra kelimesi kelimesine yazıya dökülmüş ve egzersize bağlılıkla ilgili temel temaları belirlemek için içerik analizi kullanılarak analiz edilmiştir. Bu analiz, sıkça geçen kelimeleri ve temaları bir araya getirerek nitel verileri nicelleştirmiş ve egzersiz programlarına uyumu etkileyen birkaç önemli faktörü ortaya çıkarmıştır.

Bulgular: Genel olarak, katılımcılar egzersize bağlılığın önünde 15 engel ve 8 kolaylaştırıcı tanımlamıştır. Egzersize uyumu hem engelleyen hem de kolaylaştıran faktörleri tanımlayan dört ana tema belirlenmiştir. Bu temalar vücut yapısı ve işlevi, katılım, kişisel faktörler ve çevresel faktörlerden oluşmuştur. En önemli engeller Parkinson'un motor semptomlarını göstermek, önceki düşük fiziksel aktivite seviyesi veya düşük katılım, ulaşım ve bir grup içinde egzersiz yaparken akranlarının semptomlarının ilerlediğini görmekten duyulan rahatsızlıktı. Öte yandan, egzersizin Parkinson hastalığı motor ve motor dışı semptomları üzerindeki olumlu etkileri hakkında farkındalık, egzersizin faydaları hakkında eğitim, bir uzmanla egzersiz yapma ve egzersiz için profesyonel destek Parkinson hastalarında egzersize bağlılığı motive etmiştir.

Sonuçlar ve Öneriler: Egzersize bağlılık motor semptomlardan etkilenmektedir. Bununla birlikte, hastaları egzersizin faydaları konusunda eğitmenin ve fizyoterapistlerden düzenli rehberlik sağlamanın, hastaların motor semptomlarının azalacağına dair inançlarını artırarak egzersize uyumu motive ettiği bulunmuştur.

Anahtar Kelimeler: Engeller; Kolaylaştırıcılar; Egzersiz; Parkinson Hastalığı.

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INTRODUCTION

Parkinson's disease (PD) represents the world's fastest-growing neurological condition (Bhidayasiri et al., 2023; Ding et al., 2022), with global incidences ranging from 5 to 35 new cases per 100,000 individuals annually. PD prevalence increases significantly with age and is approximately twice as common in men as in women (Ferreira et al., 2022). As the global population continues to age, the number of PD cases is projected to double between 2005 and 2030, placing an increasing burden on healthcare systems worldwide(Ou et al., 2021).

The majority of PD patients experience gait disorders, even in the initial stages of the disease, with these impairments progressively worsening as the condition advances(Smith et al., 2021). While pharmacological and surgical treatments can alleviate some motor symptoms, they have demonstrated limited effectiveness in addressing gait and balance disturbances(Lee & Yankee, 2021). This limitation has prompted growing interest in non-pharmacological interventions, particularly exercise, as complementary therapeutic approaches.

Research increasingly supports the role of exercise in both preventing and managing Parkinson's disease. Epidemiological studies suggest that individuals who engage in regular physical activity have a reduced risk of developing PD, while structured exercise programs have demonstrated improvements in motor symptoms, balance, gait, and mitigation of non-motor symptoms such as depression and cognitive decline (Ellis et al., 2021; Yoon et al., 2021). Furthermore, emerging evidence indicates that exercise may induce neuroplastic changes, potentially offering neuroprotective effects that could slow disease progression(Bonanni et al., 2022).

The positive effect of exercise approaches on the symptoms of Parkinson's disease has been shown in many studies (Emig et al., 2021; Hao et al., 2022; Tsukita et al., 2022; Yang et al., 2022). Despite these well-documented benefits, many individuals with PD face significant barriers to maintaining an active lifestyle, including fear of falling, fatigue, lack of motivation, and limited access to specialized exercise programs(Hunter, 2025; Landers & and Nilsson, 2023; Mcginley & Nakayama, 2024). It is a good opportunity to use qualitative research approaches to identify the difficulties encountered in Parkinson's disease patients' adherence to exercise. Qualitative research is a good method for identifying facilitators of exercise adherence and perceived barriers to participation. Using these identified facilitators and working to eliminate barriers will maximize the benefit of exercise. Therefore, the aim of this study was to investigate the perceived barriers and facilitators of Parkinson's disease patients' exercise approaches.

METHOD

Study type: The study represents a qualitative exploration of perceived barriers and motivators for exercise participation in individuals with Parkinson's disease, conducted between 01.03.2021 and 01.05.2021 in Turkey.

Study group: Thirteen (5 male) participants were recruited for this study (mean age: 56,6 years; mean disease duration: 10,6 years), as described in Table 1. Inclusion criterias were: (i) a diagnosis of PD; (ii) a score of 24 or more on the mini mental state examination; (iii) classified as between stage 1-4 in Hoehn&Yahr Stage. Exclusion criterias were: (i) history of neurological conditions other than Parkinson's disease (e.g., stroke or traumatic brain injury); (ii) use of any medication that prevents exercise participation.

Table 1. Description of the sample

Participants	Time Since Diagnosis	Information of Participants	Employment
PD1	4 years	Age 51; male	Tradesperson
PD2	3 years	Age 41; female	Midwife
PD3	15 years	Age 48; female	Nurse
PD4	1 year	Age 59; male	Retired
PD5	8 years	Age 79; female	Retired
PD6	11 years	Age 46; female	Tailor
PD7	2 years	Age 66; female	Housewife
PD8	11 years	Age 57; male	Retired
PD9	25 years	Age 55; female	Tradesperson
PD10	13 years	Age 61; male	Insurer
PD11	9 years	Age 66; male	Journalist
PD12	15 years	Age 56; female	Tradesperson
PD13	21 years	Age 51; female	Sales Manager

Data Collection Tools: Prior to interviews, semi-structured questions were prepared in consultation with experts from the research team and experts working in neurological rehabilitation. The questions posed were based on the components of the International Classification of Functioning, Disability and Health (ICF). Since an individual's functioning and level of disability are influenced by their surrounding context, the International Classification of Functioning, Disability and Health (ICF) categorizes health and health-related conditions by considering all relevant factors. Body structure and function, participation, personal factors and environmental factors are subcomponents of ICF ("International Classification of Functioning, Disability and Health," 2025). The semi-structured questions created

for the focus group interview included questions about the participants' disease level and symptoms, their thoughts about exercising, their perspectives on exercise programs, their barriers to regular exercise, and their sharing with healthcare professionals about exercise. The interviews with patients were carried out by physiotherapists, who have a background in physiotherapy in PD, through two focus groups, consisting of six and seven individuals with Parkinson's disease, respectively. The semi-structured interviews used a mix of closed and open-ended questions, in addition to "why" or "how" based questions. These later questions have been shown to yield more detailed data from interviews as they permit the researcher to follow up on the posedopen-ended questions (Adams, 2015). Questions posed in these focus groups have been provided in Table 2.

Table 2. Semi-Structured Questions for the two-focus group

Questions
Can you tell us about yourself?
1. How old are you?
2. What is your profession?
3. What is your educational background?
4. How long have you had Parkinson's disease?
5. What was the first symptom of your disease?
6. What are your current symptoms?
7. Do you know your stage of PD?
8. Do you have any other diseases?
9. How is your health?
10. What is the most challenging activity in your daily life?
11. Did you exercise regularly before you became ill?
What do you think about exercising in the early stages of Parkinson's disease?

1. Do you think you need to exercise in the early stage of the disease?
2. What do you think about the benefits or harms of exercise in the early stages?
3. What are your negative/positive thoughts about exercise?
4. How do you think exercising will make you feel?
5. Which symptoms of the disease do you think will improve with exercise?
What do you think are the factors that prevent people with Parkinson's disease from exercising from the early stage of the disease?
1. Which symptoms of the disease do you think prevent you from exercising?
2. Under what conditions would making adjustments allow you to exercise?
3. Which reasons that prevent you from exercising do you think are correctable?
4. If everything was fine in your life, what would prevent you from exercising?
How do you think the health care system in Turkey and your physician's approach to early exercise in Parkinson's disease?
1 Which reasons from the health system prevent you from exercising? What are your ideas on how to solve them?
2. How do you evaluate your doctor's information about the disease and his/her approach to exercise when you were diagnosed with the disease?

Data Collection Process: The data were collected through video recordings of the focus group discussions and later transcribed for analysis. Each session lasted between 90 and 120 minutes.

Statistical analysis: A thematic analysis approach was used to analyze the transcribed data from the focus group interviews. Two raters reviewed the transcripts to identify important statements for barriers and motivators related to exercise participation and code these into categories. The transcripts were re-read by 2 researchers. The thematic analysis approach suggested by Braun and Clarke (2006) was used in the data analysis process, wherein the data were read more than once for familiarization (Braun & and Clarke, 2006). In line with the notes taken during reading, initial codes were created manually with the open coding method such that barriers and motivators in exercise participation were marked as (-) and (+), respectively, along with details relating to the specific barriers or motivators. The codes were used to identify preliminary themes in the data based on identified similarities and relationships between them. During this process, ICF components were adopted as a framework and the compatibility of the codes with these components was evaluated. Each theme was subsequently elaborated upon based on the identified layers of meaning and sub-themes, supported byparticipant statements.

In order to increase the reliability of the data analysis process, the agreement between the coding performed by each rater was evaluated. Inter-rater interviews and discussions were conducted to reach a consensus on the differences.

Validity and Reliability: The interview questions were developed using the ICF framework and expert guidance to ensure the study's validity. The data were independently coded by two experienced researchers, and discrepancies in coding were resolved through discussion. Transcripts were reviewed multiple times, and key statements were consistently categorized to enhance reliability. The research process and participant characteristics were described in detail to support the transferability of the findings.

Ethical considerations: All procedures were performed in accordance with the Declaration of Helsinki and approved by Non-Interventional Research Ethics Committee of a State University (Date: 25.02.2021, Refn No: 26).

RESULTS

Focus group discussions were completed with 13 participants witth no exclusions. The main themes were determined as 4 groups as body structure and function, activity and participation, personal factors and environmental factors. Different subthemes were created under 4 main themes for both barriers and motivators affecting exercise participation as identified below.

Barriers to Exercise Adherence:

Theme A: Body structure and function

Within the Body structure and function theme, general health-related barriers (unrelated to Parkinson's disease), physical discomfort experienced during exercise, the presence of PD-related motor symptoms, and the presence of non-motor symptoms (e.g., anxiety, depression, fatigue, apathy) were identified as barriers to exercise participation. The presence of motor symptoms of PD was the most frequently mentioned as a barrier by all participants. Participants agreed that the presence of motor symptoms was a barrier for people with PD to exercise regularly. PD8 said the following:

''Secondly, being aware of it tires me because the movements force me, for example, I swim, but since my right arm does not move much, I slide to my left side, I cannot swim straight, it bothers me to realize this, I do not want to go to sports because it bothers me to realize the changes in my body like this"

There were also participants who felt that exercise was not feasible due to the increased severity of motor symptoms. PD12 said the following:

"You become unable to walk, your movements freeze, then you cannot exercise, you cannot exercise when you cannot do the movements in your daily life"

Theme B: Activity and Participation

Most of the participants with PD (n=9/13) reported previous low levels of physical activity or low participation in sports. The majority reported starting regular exercise after their diagnosis. PD 6 said the following:

"No, I never used to do sports, I don't like doing sports, I started doing sports when I got sick"

Theme C: Personal Factors

Low self-efficacy, fear of imbalance and falling, low expectation of exercise outcomes, and lack of time were the most commonly reported subthemes in this theme. Some participants thought that loss of balance and fear of falling might limit participation in exercise programs. They stated that to overcome this fear, they prefer to do exercise programs in a group or go to nearby centers:

PD8 said the following:

"[...]But if there will be something with equipment or for physical therapy, it is useful to go to a physical therapy center at home or nearby."

PD5 said the following:

"I can't exercise because I am shaking, I have a fear of falling because this happened to my mother before, I don't want to do it alone in case I fall, I prefer to do it collectively or in physical therapy centers, thanks to this, we can take them."

Theme D: Environmental Factors

Lack of social and professional support, lack of an exercise partner, discomfort of seeing peers' progressive symptoms while exercising in a group, transportation challenges to exercise facilities, bad weather, cultural difficulties, financial cost of exercise, and fear of moving in a crowded environment were all perceived to be barriers to exercise participation within this theme. Environmental factors negatively impacting exercise behavior included the lack of clear communication from institutions regarding free treatment rights, the long distance to healthcare facilities, the absence of transportation support, and the reduced adherence to exercise

due to the solitary nature of individual workouts. Additionally, inadequate support and guidance from healthcare professionals, fear of movement in crowded environments due to symptom visibility, and the realization of movement difficulties during exercise, which were all found to influence diminished motivation, were identified as significant barriers. These challenges are illustrated through the following participant statements.

PD2 said the following:

"A tendency toward depression is a factor; because of this tendency, my mood can change. If the weather is gloomy, I don't feel like going to exercise—I experience things like this. Secondly, because the movements are challenging, being aware of this also tires me. For example, I swim, but since my right arm doesn't move much, I drift toward my left side and can't swim straight. Noticing this bothers me. Realizing the changes in my body upsets me, so I don't want to go to exercise."

PD12 said the following:

"First of all, there are financial constraints. They can't go to gyms or physiotherapy centers as they wish. In hospitals, it's not always possible to be admitted. So, I mostly emphasize financial difficulties. If there were private sports facilities, for example, provided by the Ministry of Health, we would definitely go. There should be private health sports facilities."

PD6 said the following:

"The healthcare professionals dealing with us are somewhat indifferent. For example, we are a bit more sensitive; we tend to withdraw from society, we lose our self-confidence, and we cannot integrate into social life. When we experience freezing movements, we cannot go out among people; we hold ourselves back."

PD3 said the following:

"Lack of awareness is a factor—not having the mindset that exercise is necessary. Also, in hospitals, for example, there is no assistance. There is no information provided to demonstrate the necessity of exercise. Doctors don't provide it either. So, we are not very aware of it ourselves."

Motivators to Exercise Adherence:

Multiple themes were identified from these focus groups as motivators to exercise adherance, as follow:

Theme A: Body structure and function

Participants expressed that they were motivated to exercise as they saw that exercise had a positive effect on their symptoms. Seeing that their restricted movements due to motor and non-motor symptoms improved with exercise increased their commitment to exercise. They stated that the positive effects experienced physically and psychologically after increased their belief in the benefits of exercise. The majority of participants (n=9/13) said that they continued to exercise regularly to maintain the positive effects on motor symptoms.

PD9 said the following:

"Well, I have a lot of positive thoughts because I think a normal person, let alone a normal person with Parkinson's disease, should normally do exercise all the time, I think I have benefited a lot from exercising, I don't know about anyone else, but normally every time I exercised, my breathing improved a lot, my walks were faster, I was moving more comfortably, if I didn't exercise, I would freeze, I feel it, I believe that I will not be able to walk when I don't exercise, I believe that exercise affects my exercise positively a lot."

PD6 said the following:

"I believe that the disease is alleviated by exercising, I do not feel the disease because I feel strong, I believe that the disease has passed. When I exercise, I do not see Parkinson's in myself, I do not feel it."

Theme B: Activity and Participation

The ability to make exercise a daily routine was determined as a motivator for exercise adherence. It was observed that people who exercised regularly did not stop exercising and continued to exercise regularly after the diagnosis of Parkinson's disease. PD3 said the following:

"I'm a regular walker, I was doing it before the diagnosis of the disease, and after the diagnosis, I have been doing it more regularly for about 15 years. I walk, run and participate in activities."

Theme C: Personal Factors

Following regular exercise, participants demonstrated increased confidence in carrying out daily activities. They reported an enhanced sense of self-efficacy in performing necessary tasks and movements in daily life. Additionally, participants' awareness of their improved confidence through exercise was observed to strengthen their belief in and commitment to maintaining an exercise routine.

PD6 said the following:

"Exercise is definitely the cure for this disease, I think it makes you feel weak, exercise makes you feel like you can do anything, it makes you feel strong."

PD3 said the following:

"[…], I don't have a bad thought about exercise. If I say positively, I feel very happy after exercising, I think about what I benefit myself, it increases my self-confidence, so I see the positive sides of it."

Theme D: Environmental Factors

Social support from family and friends, proper guidance from healthcare professionals, and having a companion during exercise were perceived as key factors in maintaining exercise adherence. Additionally, receiving information about the benefits of exercise, engaging in social interactions with peers during exercise, and making comparisons within the group were identified as important elements in sustaining participation. Professional support from healthcare professionals (n=4/13) and receiving education about the benefits of exercise, as well as performing exercises under the supervision of a healthcare professional (n=6/13), were found to be the most influential motivators in this theme. Participants reported that encouragement from healthcare professionals and being guided toward exercise after diagnosis increased their confidence in and adherence to an exercise routine. Furthermore, being encouraged to continue hobbies that enhance daily functionality fostered a greater desire among participants to engage in functional activities.

PD7 said the following:

"I went to Hatay, Izmir, and Hacettepe and they all said to exercise. They said the exercise would be very beneficial. I told my doctor that I do handicraft knitting, and he said never stop knitting, your fingers will be fine with knitting."

PD5 said the following:

"Our doctor at [...], her approach was very useful to us, even during this period, she was constantly telling us on the internet, telling us to do exercises and not to stay inactive, I am very satisfied with my doctor."

DISCUSSION

In the current study, factors affecting exercise adherence in patients with Parkinson's disease were investigated, and facilitators and barriers to exercise adheren-

ce were identified. The interaction of person and environment were utilized to create themes that emphasize the 4 categories outlined in ICF in the current interpretation (WHO). The results show that although participants believe that exercise compliance will bring positive results and improve symptoms in their PD in the long term, they acknowledge various obstacles to long-term participation. Environmental factors were foudn to be the most frequently identified theme in terms of facilitators and barriers for participants. Barriers and facilitators related to body structure and function were mentioned as the effects of motor and non-motor symptoms specific to PD. Additionally, the facilitators and barriers mentioned relating to activity and participation and personal factors were similar across most participants.

Motor symptoms emerged as the most frequently cited barrier within the theme of body structure and function. In a a review study by Schootemeijer et al. similar themes to those created within the current study were identified. Literature relating to the body structure and functions theme, which is one of the themes created according to ICF components, has identified basic motor symptoms such as gait problems, tremors, and rigidity as preventing compliance with exercise (Schootemeijer et al., 2020). The motor symptoms mentioned in this review were similar to the factors that prevented exercise adherence herein identified, such as gait problems and loss of fine motor skills. The severity of motor symptoms (shuffling, freezing, etc.) is parallel to the literature indicating that Parkinson's patients with gait and balance problems have difficulties with physical activity (Davis et al., 2003; Jones et al., 2008). In addition, in our study, it was observed that the improvement in motor symptoms with exercise facilitated further compliance with exercise. similarly, improvement in balance and gait and an increase in functional skills have been reported to motivate patients to continue exercise and physical activity (Crizzle & Newhouse, 2012).

Another commonly reported barrier was the lack of patient education and guidance on exercise following diagnosis. The majority of the participants in the current study stated that they would have had better results and their current situation would have been better if they had been directed to exercise from the time of diagnosis. In a study investigating barriers to exercise participation in patients with PD, it was found that patients' physical activity levels decreased as a result of inadequate care because many healthcare and social service providers lacked the necessary knowledge to provide adequate support(Nilsson et al., 2015). Khalil et al. indicated a lack of information support from neurologists, wherein participants stated that they did not receive information about exercise approaches that should be part of PD treatment process management and that this lack of guidance was a barrier to exercise participation(Khalil et al., 2016). Neurologists and personal trainers can be very crucial in encouraging people with PD to exercise. Healthcare professionals, specifically neurologists, physiotherapists, and specialized trainers, should provide essential guidance that significantly influences exercise continuity.

Raising awareness among neurologists, physiotherapists, and patients about the benefits of early exercise intervention could lead to improved participation rates-given that patients' compliance with exercises performed in the presence of neurologists, and physiotherapists is higher and that this is a facilitating factor in exercise participation (Afshari et al., 2017; Rowsell et al., 2022; Schootemeijer et al., 2020).

Transportation difficulties were another significant barrier affecting exercise participation. Ensuring the continuity of the treatment received from a center and continuing it for a long time brings transportation problems. The lack of transportation support in most clinics is an obstacle to PD patients' willingness to receive treatment and exercise. Many participants in our study specifically noted that the lack of transportation support discouraged them from attending exercise sessions, thereby disrupting their exercise routines. In a systematic review of 19 qualitative research articles examining how Parkinson's patients perceive physical activity, their motivation to participate, and the barriers they face, it was concluded that transportation problems are a barrier to exercise(Hunter et al., 2019). Given the difficulty in accessing exercise due to transportation problems, home-based exercise approaches have emerged as a preferred alternative (Khalil et al., 2016). However, when the literature was examined, it was seen that Parkinson's patients were motivated by group exercise. Group exercises and social interactions were found to be facilitators in ensuring exercise continuity and compliance (Bassett et al., 2012; Kunkel et al., 2018). Participants emphasized that group exercises have both social and emotional positive effects. It is thought that gaining new knowledge, doing new activities, and being in contact with participants who experience the same difficulties facilitates participation in exercise(Nilsson et al., 2015). These studies in the literature overlap with the idea that exercising with peers, which the participants in our current study stated under environmental factors, increases social interaction and facilitates compliance with exercise.

A lack of self-confidence and perceived low self-efficacy prevent patients from integrating into society. In our study, it was observed that the anxiety experienced by the participants when entering crowded environments enahnced the fear of falling and led to their avoidance of these situations. It has been observed that participants with a history of falls experience fear in participating in physical activities and their reluctance to exercise increases(Davis et al., 2003). Patients have further emphasized the difficulties and physical losses in their lives caused by an inactive lifestyle created by this fear (O'Brien et al., 2016). An important concern seen in people with PD was the fear that exercise could increase their risk of falling and led them to avoid physical activities(T. Ellis et al., 2013). While the anxiety and fear of the risk of falling showed that people would avoid participation in exercise, it is thought that exercise in a safe and controlled environment will help overcome this fear. Group exercises led by trained professionals have been shown to enhance participants' confidence and reduce fear, facilitating continued participation in physical activity.

Findings of this qualitative study may be transferable to other individuals with PD, but they should not be generalized across the population (Patton, 2002). All participants included herein had a diagnosis of PD and were familiar with the difficulties associated with symptoms. This alone created a sense of belonging and security among the participants. Focus groups were designed to include a minimum of six participants to encourage engagement and discussion, and online participation may have facilitated open expression of thoughts and experiences.

This study provides valuable insights into the experiences of individuals with Parkinson's disease regarding exercise adherence and the challenges they encounter related to this. The findings herein presented may contribute to the development of more effective support mechanisms enabling and promoting early patient access to exercise post-diagnosis at individual and societal levels. Future research should aim to expand these findings by incorporating diverse sociocultural groups, thereby creating more inclusive strategies for enhancing exercise adherence in PD populations.

CONCLUSION AND RECOMMENDATION

This study provides a comprehensive understanding of the facilitators and barriers to exercise adherence among individuals with Parkinson's disease, emphasizing the role of structured programs, professional guidance, and social support. While motor symptoms and accessibility issues pose challenges, participants recognized the benefits of exercise in managing symptoms. Addressing gaps in patient education, transportation, and institutional support is crucial for improving adherence. Future efforts should focus on tailored interventions, increased healthcare involvement, and better access to exercise resources to enhance long-term participation and overall well-being.

LIMITATIONS AND STRENGTHS

A limitation of this study is that the duration of the participants' disease ranged from 1 year to 25 years. The perceived barriers and facilitators to exercise may differ between a newly diagnosed person and a person who has been diagnosed for many years. Future studies examining the barriers and facilitators of participants' adaptation to exercise, separated by disease duration, are needed.

Acknowledgments:

We appreciate Ayşenur Arslan's assistance during the data collection stage.

Funding:

No external funding was received for this study.

Conflict of Interest:

The authors report no conflicts of interest.

Author Contribution:

Design of Study: İA (%30), SO (%30), İD (%30), ÜD (%10)

Data Acquisition: İA (%40), HY (%40), SO (%10), İD(%10)

Data Analysis: İA(%25), ÜD (%25), SO(%25), İD(%25)

Writing Up: İA (%25), ÜD (%25), SO(%20), İD(%20), HY(%10)

Submission and Revision: İA(%25), ÜD (%25), SO(%25), İD(%25

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