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## Parent Perspectives on the Developmental Gains of Individuals with Down Syndrome Participating in Regular Physical Activities

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### ABSTRACT

The aim of this study is to examine the developmental gains achieved by individuals with Down syndrome in Malatya through regular participation in physical activities, from the perspective of their parents. The study is based on semi-structured interviews conducted with 9 parents (6 females, 3 males) working part-time at Down Cafe in Malatya and participating in physical activities. A qualitative research method was used, and data were collected through a semi-structured interview form and demographic information. The data were analyzed using thematic analysis, and descriptive analyses were performed. The data were categorized into six main themes: emotional development, social development, motor development, physical activity development, daily living skills development, and behavior change. The findings indicate that children with Down syndrome who participated in regular physical activities showed increased motivation, positive behavioral changes, improved communication skills, and enhanced motor abilities. Additionally, it was observed that these children engaged in harmonious interactions with their peers, lived according to rules, and supported their development through physical activities. In conclusion, this study demonstrates that regular physical activities significantly improve the social, emotional, and physical development of individuals with Down syndrome and contribute to the enhancement of their daily living skills. Future research should explore the effects of different physical activity programs and involve larger sample groups. Moreover, it is emphasized that physical activities should be more effectively integrated into rehabilitation processes.

**Keywords:** Down Syndrome, Physical activity, Rehabilitation.



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## INTRODUCTION

Physical activities are crucial not only for healthy individuals but also for individuals with disabilities. These activities not only improve the physical fitness of individuals with intellectual disabilities but also positively impact on their social integration, concentration abilities, and communication skills (Borland et al., 2022). Participation in physical activities helps individuals with disabilities move away from feelings of loneliness, enables them to engage more actively in social life, and supports the development of their communication skills with peers, thereby significantly improving their quality of life (Yarımkaaya et al., 2016). Regular and structured physical activities lead to significant improvements in the health of individuals with disabilities. This process is typically accompanied by increased happiness in life, a stronger connection with daily life, and a significant increase in self-confidence. In addition to physical activities, social interactions and supportive rehabilitation programs play an important role in achieving these positive outcomes (Gao et al., 2020). Sports play a significant role in the rehabilitation of individuals with disabilities. This role involves not only providing necessary exercises but also breaking the monotony of therapeutic processes by increasing motivation through variety (van der Woude et al., 2021). Group-based physical activities, unlike individual activities, facilitate socialization by bringing individuals with disabilities together and contribute to their physical, mental, and social development. The benefits of such activities are still a topic of active research today (Zimmer et al., 2021).

However, there are limited studies in the literature that specifically address the social effects of physical activities performed by individuals with genetic disorders such as Down syndrome in rehabilitation centers. There are various important studies that have examined the social effects of physical activities performed by individuals with genetic disorders like Down syndrome in rehabilitation centers. For example, Sammari & Naceur (2022) observed positive changes in psychomotor development, cognitive development, communication skills, and social adaptation through social activity programs conducted with children with hearing impairments. In the study conducted by Bastık et al. (2018), it was found that physical activities significantly contributed to the social skills of children with intellectual disabilities and helped improve their social relationships. The findings revealed that physical activities play an important role in supporting the social adaptation and socialization processes of these children. Additionally, Aksoy (2020) demonstrated in his study on children with autism that physical activities had positive effects on self-regulation and basic social skills. These studies indicate that physical activities play an important role in strengthening social interactions among individuals with special needs, and physical activities conducted in rehabilitation centers are effective in improving the quality of life of these individuals.

This study aims to explore the social effects of physical and educational activities conducted at rehabilitation centers in order to better understand the social development of individuals with disabilities. In the literature, such studies are limited, and it is often observed that the benefits related to general health and physical fitness are emphasized more (Martín-Rodríguez et al., 2024). However, the development of social integration and communication skills greatly contributes to individuals taking a more active role in daily life. This study aims to fill this gap by examining the effects of physical activities that strengthen social interaction and group bonds.

Down syndrome was first described by Dr. John Langdon Down in 1866 and is considered one of the main causes of genetic intellectual disability. This syndrome is a chromosomal condition that affects individuals across all races, ages, and socioeconomic levels (Tong, 2022). As a common genetic disorder, it highlights the importance of organizing supportive activities focused on social skills and adaptation. Specifically, encouraging social interaction early and continuously can help individuals become more active in their daily lives.

When examining the characteristics of individuals with Down syndrome, it is observed that their cognitive abilities differ slightly from those of typically developing individuals, leading to differences in developmental timing (Romano et al., 2020). In terms of language development, they typically begin to speak their first words at 18 months (Ferjan Ramírez et al., 2020). Individuals with Down syndrome often exhibit more positive behaviors than their intellectually disabled peers and typically developing individuals (Channell et al., 2021). Research shows that the social development of children with Down syndrome is generally two to three years ahead of their cognitive development. As a result, they tend to form harmonious relationships with their environment and are often described as affectionate and cheerful (Onnivello et al., 2022).

In terms of psychomotor skills, it can be stated that girls with down syndrome generally have more developed motor skills than boys, while boys tend to be more active in social interactions (Alesi et al., 2022). During early childhood, the development of these children progresses in a similar timeframe to that of their typically developing peers; however, it generally occurs at a slower pace. This emphasizes the necessity of providing support based on their individual characteristics and needs (Erdemir et al., 2022; Ababneh, 2021).

Regularly organized sports activities make significant contributions to positive behavior changes and the development of fine and gross motor skills in individuals with special needs. These activities also encourage social interactions with peers and strengthen friendship bonds (Dapp et al., 2021). In this context, it is important to note how often individuals with Down syndrome engage in physical activities and for how long they perform these activities each week. In this study, it has been observed that individuals who regularly participate in physical activities at rehabilitation centers engage in these activities at least three days a week, for 30-45 minutes each session. Regular participation in these activities contributes to strengthening social bonds, improving communication skills, and increasing self-confidence. Therefore, sports can be considered and utilized as an effective strategy to improve the overall quality of life of these individuals.

This study investigates the social effects of physical and educational activities conducted by individuals with Down syndrome at rehabilitation centers, as well as their part-time work at Down Cafe in Malatya, through semi-structured interviews with their parents. Parents were asked about the physical activities their children are involved in, whether their children enjoy these activities, changes in their mood after participating in these activities, and observed changes in their socialization processes. Additionally, the study evaluates how regular participation in physical activities contributes to their children's ability to fulfill daily life responsibilities. While aiming to contribute to the literature, this study also aims to provide insights that can help practitioners and families offer more effective services and is expected to be a valuable resource for future research.

## METHOD

### Research Design and Interview Technique

This study employs interview techniques, which is widely used in qualitative research (Hitchings & Latham, 2020). The interview technique is an effective method for deeply understanding participants' personal experiences, thoughts, and emotions. The questions were designed in alignment with the research objective, based on discussions with three academics from the Faculty of Sport Sciences at Inonu University, as well as insights from similar studies in the literature. The same open-ended questions were asked in the same order to all participants. This approach allowed participants to provide flexible responses, thereby increasing the diversity of the data and enabling a more detailed exploration of the emotional and practical barriers faced by parents regarding their children's participation in physical activities.

## Ethical Approval and Participant Information

Ethical approval for the study was obtained from the Inonu University Ethics Committee on September 25, 2024. After receiving ethical approval, participants were informed about the purpose and procedures of the study, and written consent was obtained. The confidentiality of the participants' identities was ensured, and each participant was assigned a number to guarantee anonymity.

## Participants and Data Collection Process

The study involved nine individuals with Down syndrome, who were working part-time at Down Cafe in Malatya and participating in physical activities with their accompanying relatives. Participants were selected based on voluntary participation, and the dates and times of the interviews were arranged according to the availability of the participants. The interviews lasted approximately 10-15 minutes each and were recorded with a voice recorder. The recorded materials were subsequently transcribed. The accuracy of the transcripts was reviewed by each researcher, and no discrepancies were found.

## Data Analysis

Data analysis was conducted using thematic coding. Codes were determined based on frequently recurring expressions and key concepts in the interview data. Two independent researchers participated in the coding process, and to ensure consistency, they discussed and resolved any discrepancies that arose. A coding guide was used to define the scope of each code. Coding was performed using NVivo software, which allowed for the systematic categorization of the data and the visual analysis of the themes. Care was taken to accurately reflect each participant's perspective when determining the themes. The reliability of the analysis was enhanced through consistency in coding and the validity of the content analyzed. The results were supported by illustrative quotations and reported transparently.

**Table 1**

*Demographic Characteristics of the Participants and Their Children*

Participant	Gender	Child's Age	Child's Gender	Years of Child's Regular Physical Activity
P1	Female	23	Girl	3
P2	Male	36	Boy	5
P3	Male	25	Girl	10
P4	Female	24	Girl	22
P5	Female	22	Girl	10
P6	Female	34	Boy	24
P7	Female	18	Boy	10
P8	Female	23	Girl	19
P9	Female	30	Girl	3

The participant profile consisted of nine individuals (P1 to P9), with a predominance of female participants ( $n = 7$ ) and only two males. The ages of the participants' children ranged from 18 to 36 years, with a mean age of approximately 26.1 years, indicating that most children were young adults. Regarding the children's gender, six were girls and three were boys, showing a slightly higher representation of female children in the sample. In terms of physical activity history, the number of years children engaged in regular physical activity varied widely from 3 to 24 years, suggesting considerable diversity in physical activity experience among participants. For instance, the longest duration (24 years) was reported by P6, indicating long-

term involvement in active routines since early childhood, whereas the shortest durations (3 years) were reported by P1 and P9, possibly reflecting more recent engagement. This distribution highlights both the heterogeneity of participant backgrounds and the potential influence of longitudinal exposure to physical activity on any psychological, behavioral, or health-related outcomes being investigated in the study.

## FINDINGS

The primary research question of this study is whether the physical activities conducted significantly contribute to the social progress of individuals with Down syndrome. The interviews conducted not only support this question but also emphasize the importance of regular physical activities in the context of the study involving parents of individuals with Down syndrome who work at Down Cafe. The findings of this study are as follows.

**Table 2**

*Findings Related to the Emotional Development Theme Based on Participant Interviews*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Emotional Development</b>	Behavior	Calmness, Introverted, Shy, Bored	P5, P7, P8, P9
	Motivation	Positive thought, Positive approach, Desire, Interest	P2, P4, P6
	Well-being	Happy, Enjoyment	P1, P3

The findings related to the theme of emotional development indicate that regular participation in physical activities has a significantly positive impact on the emotional development of individuals with Down syndrome. Engagement in physical activities not only increases their motivation but also enhances their approach to various situations and improves their overall well-being. Parents have reported that their children become calmer, develop a more positive mindset, and participate in activities without boredom as a result of these activities. The emotional development theme is of critical importance, particularly in understanding individuals' emotional well-being and overall health.

The perspectives of P1 and P2 highlight that physical activities help their children relax and develop a more positive outlook. P3 further emphasizes that the freedom to move increases the child's happiness. P4 and P5 point out that physical activities play a crucial role in achieving emotional balance and fostering social interactions. P4 suggests that these activities help release negative energy, while P5 observes that more introverted children behave differently in social activities after participating in physical exercises. P6's perspective suggests that physical activities help calm children, while P7 and P8 express that such activities alleviate feelings of loneliness and boredom. P9 underscores that regular physical activities provide emotional regulation and contribute to the children's overall sense of stability. Notably, no negative feedback regarding physical activities was reported throughout the study. However, it is possible that some parents observed initial anxiety or resistance in their children towards these activities. Such negative feedback, if present, would highlight the fact that physical activities may not be equally effective for every child, suggesting the need for a more balanced analysis.

In conclusion, regular physical activities provide significant benefits not only for the physical health of children with Down syndrome but also for their emotional balance and social interactions. These findings underscore the importance of physical activities in emotional development, while also indicating that the effects may vary for each individual.

The perspectives related to this theme are as follows:

P1: "When my child participates in regular physical activities, they experience relaxation and calmness. They are normally calm, but there is a significant sense of relief, and they become happy." P2: "My child fills with happiness and relaxes; their irritability decreases, and they view everything more positively." P3: "They become happier and convey that feeling to others. After physical activities, they move more freely, which triggers their happiness." P4: "There have been positive changes. They used to accumulate negative energy throughout the day and couldn't find an outlet for it. Now, as they participate in physical activities, I see them more relaxed and able to release that energy. You could think of it as emptying a pool. On days they don't participate in physical activities, you can see that negativity." P5: "They are very emotional and view everything from an emotional perspective. You can observe that they relax when they participate in physical activity. You can see the difference between a normally introverted child and one who engages in social activities." P6: "After physical activities, they are in a happier and calmer state of mind. They even express their desire to go for a walk or exercise cheerfully. When they don't engage in these activities, they become more irritable and give negative responses, retreating into themselves. When I say we are going to the cafe, they want to do everything themselves, but when we don't go, they don't even want to change their clothes." P7: "They are happier and not bored because they are not alone with themselves." P8: "It's hard for them to go, meaning they get anxious when starting something. But after they go, they are very happy and calm. I don't see any problems." P9: "They move more calmly, especially after they start playing ball; they begin to settle down even more."

**Table 3**

*Findings Related to the Social Development Theme*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Social Development</b>	Communication	Initiating communication, Conversation, Introductions	P1, P4, P6, P7
	Integration	Calm, Moderate, Adaptation	P2, P3, P9
	Making Friends	Number of friends, Environment	P5, P8

In the findings related to the social development theme, it was observed that regular physical activity participation significantly impacts the social development of individuals with Down syndrome. Parents' statements demonstrate the crucial role physical activities play in improving their children's social skills and enabling more effective communication with their surroundings. The social development theme is crucial as it highlights the impact of interpersonal interactions and social integration on an individual's overall development and quality of life.

P1 reported that their child has become more comfortable expressing themselves and enjoys engaging in conversations with friends. This indicates that the child has become more active in their social environment. P2 and P3 observed that their children have become more adaptable and attentive listeners. P2 noted that physical activities helped their child overcome introversion and develop a more cooperative attitude. P3 highlighted that the improvement in communication resulted not only in increased understanding but also in a positive and cooperative behavioral change. P4, P5, and P6's observations further reinforce the direct impact of physical activities on social interactions. P4 noted an increased willingness to communicate, while P5 mentioned significant progress in both fine motor and social skills. P6 observed that their children became happier and more affectionate, and their family communication improved. P7 and P8 stated that their children have become happier and more eager to spend

time with friends. This demonstrates how social interactions and play help children overcome negative emotions such as loneliness and boredom. P9 shared that their child could be more irritable when reluctant to play, but after spending time with friends, they become calmer and more relaxed. The study found no reports from parents indicating negative effects of physical activities on social development. However, some parents noted that their children initially showed resistance to participating in games. This suggests that physical activities may not be equally effective for every child, emphasizing the need for broader analysis.

In conclusion, the parents' perspectives indicate that regular physical activities significantly enhance the social development of children with Down syndrome. These activities contribute not only to physical health but also to social skills and family communication.

The perspectives related to this theme are as follows:

P1: "I noticed a significant difference in their speech. They have started to express themselves more comfortably and enjoyably converse with their friends." P2: "There are more positive changes. They used to be quite introverted, but after starting physical and social activities, they have become more adaptable." P3: "We have started to understand each other better. They listen attentively and exhibit more moderate and obedient behaviors." P4: "I observe positive behaviors, especially a greater willingness to communicate." P5: "My child is progressing day by day, especially coming to the cafe and spending time with friends has enriched them. They have made considerable progress in fine motor skills and socialization, which makes me very happy." P6: "I have seen positive changes; they are happier and more affectionate. They respond to every question we ask, and their communication with us is improving."

P7: "Because they are happier, they engage in good conversations, responding to what we say."

P8: "Since they are quite a positive child, they actually get along well with their friends, and they are very happy spending time together." P9: "I think it is nice and fun. Sometimes they don't want to play, and during those times, they can be more irritable, but after playing with their friends, I see that they become more relaxed and calm."

**Table 4**

*Findings Related to the Motor Development Theme Based on Participant Interviews*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Motor Development</b>	Development of Motor Skills	Fine motor, Gross motor, Hand-eye coordination	P2, P3, P6, P9
	Physical Fitness	Body posture, Upright walking, Cardiovascular development, Balance	P5, P7
	Talent Discovery	Traditional dance, Volleyball, Folk dance, Skill	P4, P8
	Management of Chronic Conditions	Heart disease	P1

The findings related to the social development theme highlight the significant impact of regular physical activity participation on the motor development of individuals with Down syndrome. Parental reports indicate that such activities contribute to the development of both fine and gross motor skills, improvement in hand-eye coordination, facilitation of balanced walking, and correction of postural issues. Furthermore, physical activities have been found to contribute to positive developments in specific sports disciplines and the ability to cope with chronic conditions. The motor development theme is of great importance as it helps individuals



enhance their physical abilities and increase their independence in daily life activities.

The observations of parents provide valuable insights into the progress their children have made in motor skills. P1 notes that their child now moves more comfortably, finds it easier to sit and stand, and that participation in physical activities has contributed to this improvement. This suggests that physical activities not only enhance muscle development but also positively impact overall motor skills. P2 and P3 emphasize the progress their children have made in motor abilities. P2 observes an improvement in their child's ability to approach and track the ball, while P3 shares that their child, who previously struggled to catch a ball, is now able to do so with ease, which has made them very happy. These developments indicate that physical activities also lead to noticeable increases in self-confidence and engagement. P4 and P5 discuss the impact of physical activities on balance and coordination. P4 highlights the success of their child in performing folkloric movements and the teachers' role in helping them master these skills. P5 observes significant improvements in their child's balance and increased enthusiasm for playing with the ball. These observations suggest that physical activities not only contribute to physical development but also encourage greater participation in daily activities, enhancing mobility and engagement. P6 and P7 note significant improvements in their children's motor skills. P6 points out progress in their child's ability to ride a bike and play ball games, while P7 reports that their child now walks more steadily and has made progress in running. These developments further illustrate how regular physical activities contribute to the improvement of balance and motor skills in children. P8 and P9 discuss the improvements in motor skills as well as the positive effects of activities on attention and focus. P8 observes their child's increased interest in traditional dance and the contribution of this activity to their development. P9 shares that despite a minor eye issue, their child has developed the ability to jump over shapes placed on the ground with careful attention, aided by their teacher. These quotes suggest that physical activities not only enhance motor skills but also improve cognitive abilities such as attention and coordination. Some parents mentioned that their children initially resisted participating in physical activities. These observations indicate that not every child benefits equally from these activities, and individual differences must be considered. This underscores the need for a more comprehensive approach, as physical activities may not be equally effective for every child.

In conclusion, parental perspectives indicate that regular physical activities lead to significant improvements in the motor skills of children with Down syndrome. These activities not only promote physical health but also offer benefits in terms of self-confidence, attention, and social interaction. These findings demonstrate that physical activities play a vital role in enhancing children's motor development and serve as an effective tool for fostering different motor skills.

The perspectives related to this theme are as follows:

P1: "Previously, he had a hole in his heart. His doctor said that participating in physical activities would not pose a problem. His condition is now good, and he moves more easily. His sitting and standing have also become more comfortable." P2: "Before, he used to dodge when the ball came near his head. Now, he approaches the ball, follows it with his eyes, and hugs it. He is currently in very good condition." P3: "There is a significant difference in his ability to catch things thrown to him. When we threw him the ball, he couldn't catch it, but now he can and feels very happy. He used to show no interest in anything, but now he is much more engaged." P4: "Of course, there is. For instance, my daughter performs the folkloric movements very well. Her teachers showed her how to do it correctly by having her repeat the movements. She didn't believe our words, but she listened to her teachers. Physical activities are very important for such children, and when she participates in them, she also focuses her mind, so these activities are essential for us." P5: "He couldn't walk straight and had balance issues.

Since participating in physical activities, he has made significant progress. He also goes to a few training centers where we stay and has improved a lot in terms of balance. He is very eager to play with the ball and can throw the basketball into the hoop very well.” P6: “His movements have improved significantly, especially in terms of walking steadily. He always plays ball with his siblings and loves to ride his bike.” P7: “He moves more steadily when walking, and we have seen positive results in his running as well.” P8: “Actually, my daughter doesn’t like to move much, but she loves playing traditional dance. You really need to see it; whatever you give to the child, they will take it.” P9: “He adjusts his focus very well now, which he didn’t do before. He has a minor issue with his eye, but now his teacher places shapes on the ground, and he jumps over them carefully.”

**Table 5**

*Findings Related to the Theme of Physical Activities Based on Participant Interviews*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Physical Activity Development</b>	Relief from Monotony	Active lifestyle, Various physical activities	P2, P7, P8
	Hobby – Sports	Drawing, Basketball, Line dance	P5, P9
	Rehabilitation	Target achievement, Peer education	P1, P3, P4, P6

The theme of physical activity development is a process that leads to significant changes in the social, emotional, and physical development of individuals with Down syndrome. Parental observations reveal that these individuals transition to a more active lifestyle through physical activities, showing improvements in their social interactions and overall mood. Findings related to physical activities are important for improving health, enhancing quality of life, and preventing diseases.

P1 and P2 highlight that their children appear happier and more relaxed when with their friends, emphasizing that these interactions play a crucial role in their social development. P3 also points out that the bonds formed with peers contribute to their social identity development. This indicates the strong impact of social relationships on the emotional growth of children. Observations from P4 and P5 demonstrate that physical activities have a significant effect on individual skills. P4 notes that their child performs better in individual activities with preferred teachers, while P5 shares that their child's passion for painting was supposed to culminate in an exhibition, but due to the pandemic and earthquake, it was delayed. These observations underscore the role of physical activities and teacher guidance in enhancing individual abilities. P6 and P7 discuss the enjoyable and educational aspects of physical activities with peers. P6 mentions that their child learns more through activities with friends, while P7 highlights that the intensity of physical activities during competition periods may lead to feelings of fatigue. This suggests that while children may struggle with challenging activities, the social interactions that make them fun and educational can boost motivation. P8 and P9 provide insights into how some children may be reluctant to engage in physical activities. P8 notes that their child participates in activities with the teacher despite initial reluctance, while P9 shares that activities like basketball increase their child's motivation. This emphasizes the importance of tailoring activities to meet the child's interests and needs.

In conclusion, physical activities provide significant contributions to the development of individuals with Down syndrome. However, since each child has different needs, a personalized approach is crucial to achieve more effective results.

The perspectives related to this theme are as follows:

P1: “He appears to be happier and more relaxed when he is with his friends.” P2: “Having spent the last five years consistently with his friends, I observe that he seems happier, as they engage in various activities together and work at the café.” P3: “His interactions with peers contribute to his happiness, as they provide him with individuals he can communicate and connect with. This experience fosters his development as a distinct social individual.” P4: “When he participates in individual activities with his preferred teachers, his performance is significantly better. In our presence, he tends to be negatively influenced, as he knows we will support him and compensate for any shortcomings. When his teacher provides directives, he executes the assigned tasks or learned concepts much more effectively and correctly.” P5: “He has a deep passion for painting and was supposed to hold an exhibition; however, due to the pandemic followed by an earthquake, we were unable to proceed. We aim to open it at an appropriate time.” P6: “He derives great joy from the physical activities he engages in with his friends; although he sometimes wishes for my company, I believe he learns more from these activities with his peers.” P7: “He generally enjoys participating in various activities, but during competition periods, the intensity of physical activities increases. During these times, he may become aware of the exhausting nature of these activities, which can trigger feelings of boredom.” P8: “Overall, he does not enjoy physical activity, which has resulted in him being heavier than necessary. However, when he is required to participate in activities with his teacher, he reluctantly engages despite his initial reluctance.” P9: “He absolutely loves playing basketball and loses himself in the joy it brings; he also enjoys dancing in circles, whether with us or his friends.”

**Table 6**

*Findings Related to the Theme of Daily Living Skills Based on Participant Interviews*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Development of Daily Living Skills</b>	Self-Care Skills	Dressing, Personal care	P3
	Structured Living Skills	Sleep routine, Order and organization, Plan – Schedule, Compliance with social rules	P1, P2, P4, P5, P6, P7, P8, P9

The theme of daily living skills development is an important factor influencing the progress of individuals with Down syndrome in areas such as self-care, responsibility awareness, organization, and social adaptation. Parental observations reveal that regular participation in physical activities contributes to these developments, enabling individuals to lead more independent and organized lives. The following quotes illustrate the impact of physical activities on these skills. Findings related to the theme of daily living skills are important because they enable individuals to perform essential tasks independently, promoting autonomy and overall well-being.

P1 emphasizes that physical activities enhance social interaction and communication skills. The child’s improved ability to communicate more comfortably at the café and the increase in organizational skills demonstrate that physical activities have positive effects not only on motor skills but also on social and emotional development. This contributes to children's independence in social interactions. P2’s observation indicates that physical activities help the child live a more planned and disciplined life. Such organization enhances the child’s ability to complete daily routines and responsibilities at home. P3 highlights that physical activities increase self-confidence and help the child perform household responsibilities more consciously. Tasks like clearing the table, cleaning the floors, and putting away dishes demonstrate the development of both motor skills and responsibility. P4 and P5 note that

physical activities have helped the child lead a more organized and planned life. P4 mentions that the child has adopted a disciplined lifestyle, while P5 reports significant progress. These observations indicate that physical activities help children organize their lives and have a strong impact on their overall development. P6 states that physical activities have contributed to the child's increased help with household chores and greater organization. The tendency to be orderly, commonly seen in individuals with Down syndrome, is reinforced by physical activities, which also increase their sense of responsibility and adaptability to their environment. P7 underscores that physical activities positively impact the child's ability to perform household responsibilities. The child's contribution to household routines reflects broader developmental progress. P8 and P9's observations suggest that some children may be reluctant to engage in physical activities, yet they show more responsibility in specific environments (e.g., at the café).

P8 notes that while the child is often unwilling to help at home, they perform all requested tasks at the café. This highlights the importance of tailoring activities to the child's interests. P9 expresses that the child has always been responsible and organized, underlining the positive effects of physical activities on these skills.

In conclusion, physical activities significantly contribute to the development of individuals with Down syndrome. However, since each child has unique needs, not all activities will have the same effect for every child. This underscores the importance of personalized approaches in fostering their growth.

The perspectives related to this theme are as follows:

P1: "He has become somewhat more independent compared to the previous situation. He is able to move around by himself, and we have observed that he communicates more comfortably, especially in the café where he works. He is more relaxed in forming sentences when talking to others and has shown greater organization in his life. This was not the case before. The café has significantly benefited us in this regard." P2: "Previously, he would go directly to his room and sit at the computer without ever getting up. Now, he doesn't even open the computer properly. While at home, he engages in pre-planned activities." P3: "After participating in physical activities, my child has started to move more consciously. He is aware of certain responsibilities at home. For instance, he helps with clearing the table and cleaning the floors, and he puts away his own plate. He has begun to develop greater self-confidence." P4: "Most importantly, he acts in a planned manner. He must wake up at a specific time in the mornings, eat at a certain time, and he organizes specific activities according to the day's plan. This has resulted in a more disciplined life, and he is learning to live in a structured and organized manner." P5: "Everything has developed significantly day by day compared to the past. Even if it is not a hundred percent improvement, perhaps around fifty percent, it still makes us very happy, as there are others who do not experience this. He is adapting to the rules of his environment." P6: "He is helping more with household chores and is following instructions. He generally enjoys being organized; children with Down syndrome often exhibit this trait. If he sees something out of place, he immediately corrects it. I have two other children who do not care about the state of the house when they come home, but my child immediately tidies up and organizes the space." P7: "We are achieving very positive results from all aspects. Our routine changed a bit after the earthquake, but before that, for example, he would fill and empty the dishwasher, help with clearing the table, and organize his room. Currently, due to our changed living situation, it is challenging to demonstrate this, but he was very helpful." P8: "My child is not very eager to help and does not enjoy doing chores. However, he works at the café and, when he goes there, he collects glasses, assists with service, and performs all requested tasks. At home, though, he often says, 'I am very tired, you do it.'" P9: "He was already fulfilling his responsibilities at home, but this has increased as he spends more time at the café. He organizes the house without us prompting him; he has always been a child who enjoys order since he was

little.”

**Table 7**

*Findings Related to the Theme of Behavior Change Based on Participant Interviews*

Main Category	Subcategories	Codes Generated from the Interview Results	Participants
<b>Development of Behavior Change</b>	Problem Solving	Solution	P3
	Transfer	Imitation, Adaptation, Daily life, Learning by doing	P1, P2, P4, P5, P7, P9
	Analogy	Association, Model	P6, P8

The development of daily living skills is a crucial factor in facilitating the independence, responsibility, organization, and social integration of individuals with Down syndrome. Parental observations indicate that regular participation in physical activities contributes to these developments, enabling individuals to lead more independent and organized lives. Below are the perspectives of parents regarding this theme and explanations of the significance of these viewpoints. Findings related to the theme of behavior change are important because they provide insights into how to effectively modify habits, improve outcomes, and promote positive long-term adjustments in individuals' lives.

P1 emphasizes that the increased activity level and the ability to perform activities without hesitation highlight the potential of physical activities to enhance confidence in social interactions. This allows children to establish stronger connections with the community and move more comfortably in social settings. P2's observation of their initially introverted child becoming more friendly through outdoor activities shows the critical role physical activities play in the development of social skills. This process helps individuals with Down syndrome become more active and participatory in society. P3 highlights the improvement in their child's self-awareness and problem-solving ability, pointing to the positive effects of increased self-confidence and social interaction. This development encourages individuals to take more responsibility in their own lives. P4 and P5 observe that children begin to integrate the skills they learn through observation into their daily lives. P4 notes that their child mimics the movements of their friends or teachers, while P5 mentions that their child has started helping with household chores. This demonstrates how physical activities help individuals apply what they learn from their environment. P6 and P7 indicate that physical activities strengthen children's social connections. P6 observes that their child has bonded with friends and learned their names, while P7 notes that their child's socialization has increased through repeated visits to the café. This shows that physical activities provide an essential opportunity for children to develop their social skills. P8 states that their child applies the responsibilities learned at the café to help at home, suggesting that physical activities reinforce the sense of responsibility. This enables individuals to organize their daily lives and contribute to their surroundings. P9 points out that children acquire new skills through observation, indicating that individuals with Down syndrome become more independent through trial and error and observation in the learning process. Some parents mention that their children show reluctance in participating in physical activities, which highlights that each child has different motivations and needs. This situation underscores the importance of individualized approaches. For instance, some children may be more hesitant to engage in social interactions. This once again emphasizes the importance of adapting activities to the child's interests.

In conclusion, physical activities have a significant impact on behavior change in

individuals with Down syndrome. However, due to the varying needs of each child, personalized approaches can lead to more effective outcomes.

The perspectives related to this theme are as follows:

P1: "My child has become quite active; they have started to recognize people and move more comfortably, and they carry out their activities without shame." P2: "They were very withdrawn at first, avoiding everyone. As they participated in outdoor activities, they began to exhibit friendlier behaviors towards others." P3: "Their self-confidence has increased, and their interactions with people have improved; they have become aware of themselves as a distinct individual and I see that they are trying to solve the problems they encounter throughout the day." P4: "While engaging in physical activities with a few others, they observe their friends or teachers, mimicking their movements and taking them as role models." P5: "Previously, my daughter did nothing; now she makes her bed, chooses and folds her clothes, and prepares coffee for us." P6: "She didn't know the names of her friends, but as she participated in physical activities, they bonded, and now she tells us their names and constantly shares what happened that day at home." P7: "Especially as she goes back and forth to the café, her socialization has increased; she has started to engage in conversations and does the things she needs to do throughout the day without us telling her." P8: "When she works at the café, she knows her responsibilities and what she needs to do, and she helps us at home with what she has learned there." P9: "While engaging in activities with her friends, they observe each other, and if she cannot do something, she tries to replicate it by watching someone else and experimenting with it."

## DISCUSSION

The aim of this study is to examine the developmental gains achieved by individuals with Down syndrome in Malatya through regular physical activity, based on their parents' perceptions. However, the fact that data was collected from only nine parents and a single geographical region limits the generalizability of the findings. The small sample size may hinder the applicability of the results to a broader population. The study's findings may only be relevant for parents in Malatya, and similar studies conducted in different regions may yield different results. Additionally, the high developmental expectations of the parents in the sample may have introduced bias into the study. Parents who are more motivated to gather information about improving their children's development might have shaped their perceptions in a more positive direction. Therefore, studies with larger and more diversified samples may enhance the generalizability of the findings. Furthermore, clinical or observational measurements of motor skills could provide a more substantial contribution to the literature.

Bor (2018) demonstrated in his study that therapeutic recreation activities positively impact the social development of children with Down syndrome. These activities helped children improve in areas such as social skills, speech, relationship-building, teamwork, and emotional control. Moreover, teachers trained in therapeutic recreation were found to support children's social skills more effectively. Educational games and social development activities for disabled students also play a crucial role in developing their social skills. These findings indicate that therapeutic recreation activities and teacher training are effective tools for supporting social development.

In the study by Albayrak & Eliöz (2023), regular sporting activities were shown to play an important role in the development of social adaptation and skills in children with Down syndrome. Sports not only promote physical development but also provide significant opportunities for social and emotional growth. Furthermore, sports enhance children's self-confidence while helping them learn to follow social rules, work in teams, and take individual

responsibility. This process encourages children to be more active in their social environments, leading to positive psychological effects.

Jung et al. (2017) found that children with Down syndrome exhibited lower functionality and social participation compared to typically developing children. However, as their functionality improved, so did their quality of life.

In the study by Ilkim et al. (2021), participation in regular physical activities was shown to significantly improve the self-esteem and happiness levels of individuals with Down syndrome. This finding demonstrates that regular exercise has positive effects on the psychological and emotional development of these individuals, enhancing their quality of life. Physical activities contribute not only to physical health but also to emotional and social well-being, strengthening self-esteem and enabling a happier life. Therefore, individuals with Down syndrome should be encouraged to participate in regular sports and physical activities.

Senlik et al. (2017) found that special physical education programs for children with Down syndrome positively affected their emotional adjustment and supported their psychological and social development. These findings demonstrate that physical education lessons offer not only physical but also psychological and social benefits for these individuals.

Yazıcı & Kepenek-Varol (2021) revealed that the physical performance of children with Down syndrome was lower than that of typically developing children. Delays in areas such as walking speed, lower extremity muscle strength, and dynamic balance are associated with motor developmental delays specific to Down syndrome. Decreased physical activity levels were found to increase health problems, which negatively affected families as well. In this context, increasing the physical activity levels of individuals with Down syndrome can have positive effects on both their physical health and the psychological well-being of their families. The study shows that physical activity contributes to improvements in motor skills and social integration, and this process can be strengthened with family support.

Baris & Aras Bayram (2020) found a connection between the development of motor skills and the level of independence in children with Down syndrome. As children's motor skills improve, they become more independent. This suggests that motor development helps children gain more independence in their daily lives.

In the study by Franco et al. (2023), it was revealed that participation in physical activities had a positive effect on all students with Down syndrome, regardless of gender.

Uygur & Aslan (2024) observed that an exercise and game program implemented through distance education helped redirect the television-watching habits of children with Down syndrome toward education, thereby enhancing their motor skills and promoting socialization with their peers. Numerous studies in the literature have indicated that children with Down syndrome show improvements in motor skills as a result of regular exercise (Aksay, 2022; Eren et al., 2019; Lersilp et al., 2016; Tekin & Tekin, 2021).

It has been established that regular participation in physical activities has significant positive effects on the social, psychological, and motor development of individuals with Down syndrome. Special physical education programs contribute to the development of social skills, self-confidence, and emotional regulation. Moreover, regular exercise and sports activities have been shown to improve the quality of life of individuals with Down syndrome, increase their social integration, and make them more active in their social environments. Physical activity not only improves motor skills but also contributes to the psychological well-being of children, enhancing their independence and freedom. These findings demonstrate that participation in physical activities strengthens both the individual development and social integration of individuals with Down syndrome. Similarly, in our study, the positive effects of regular

physical activities on the development of children with Down syndrome were observed. Therefore, encouraging regular physical activity for these individuals is critical to improving their quality of life and enabling more active participation in society.

### **Conclusion**

This study, conducted with the families of individuals with Down syndrome working part-time at the Down Cafe in Malatya, reveals that these individuals significantly benefited from physical activities, leading to an improvement in their quality of life. Specifically, the regular participation in sports and physical activities contributed to the development of their motor skills and facilitated the strengthening of their social skills. Additionally, these activities have helped enhance their social integration, reduce feelings of loneliness, and promote a more active lifestyle. Observations from parents have supported these findings, and the real-world setting of "Down Cafe" has provided a unique methodological contribution to the study.

### **Recommendation**

It is recommended that rehabilitation centers incorporate structured, peer-led physical activities into their programs at least twice a week to support the development of individuals with Down syndrome. These activities will foster both motor and social skill development, while also encouraging families to participate in social events, which in turn will improve social integration and overall development. Furthermore, rehabilitation and educational institutions should increase employment opportunities for professionals trained in sports sciences to help disseminate such programs more widely. Policymakers must invest in and create strategic plans to expand these community-based programs, ensuring that they reach a broader population.

Future research could test these findings with larger, more diverse sample groups and examine the development of motor skills and social integration processes over a longer time frame. In particular, the development of motor skills could be further validated through quantitative measurements, in combination with parent reports. Additionally, studies conducted in various educational institutions and special education centers could explore in greater detail how individuals with different demographic characteristics benefit from such activities, evaluating the effectiveness of community-based social programs. Such research will provide scientific support for the effectiveness of these programs, ultimately enhancing their applicability.

### **Limitations**

This study is limited to the families of individuals with Down Syndrome living in Malatya province and working in Down cafes in 2024.

### **Acknowledgements or Notes**

In conclusion, this study demonstrates a marked improvement in the quality of life and social integration of individuals with Down syndrome. These findings underscore the importance of expanding community-based social programs, such as "cafes" specifically designed for individuals with Down syndrome. Policymakers and local governments should take steps to replicate and expand such social programs in other regions. By doing so, social participation can be encouraged, social isolation can be mitigated, and the overall quality of life for individuals with Down syndrome can be significantly improved.



## REFERENCES

- Ababneh, O. M. A. (2021). How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7), 1204–1226. <https://doi.org/10.1080/09640568.2020.1814708>
- Aksay, E. (2022). Comparison of motor coordination levels of children with Down syndrome and typically developing children – Germany sample. *International Journal of Sport Exercise and Training Sciences (IJSETS)*, 8(2), 33–44. <https://doi.org/10.18826/usecabd.942641>
- Aksoy, Y. (2020). The effects of physical activities as recreational activities on social communication in children with autism. *Gaziantep University Journal of Sports Sciences*, 5(1), 1–9. <https://doi.org/10.31680/gaunjss.689747>
- Albayrak, Ö., & Eliöz, M. (2023). Spor yapma alışkanlığının özel gereksinimli çocukların kognitif becerilerine etkisi. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 42(1), 1–32. <https://doi.org/10.7822/omuefd.1098305>
- Alesi, M., Giustino, V., Gentile, A., Gómez-López, M., & Battaglia, G. (2022). Motor coordination and global development in subjects with Down syndrome: The influence of physical activity. *Journal of Clinical Medicine*, 11(17), 5031. <https://doi.org/10.3390/jcm11175031>
- Barış, B., & Aras Bayram, G. (2020). The relationship between gross motor function level and independence level of preschool children with Down syndrome and their parents' quality of life. *Hacettepe University Faculty of Health Sciences Journal*, 7(3), 381–393. <https://doi.org/10.21020/husbfd.702125>
- Bastık, C., Erkan, M., & Gümüşdağ, H. (2023). Investigation of the effect of sports on the socialization of physically disabled individuals. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi*, 21(1), 1–12. <https://doi.org/10.33689/spormetre.1128586>
- Bor, M. Ö. (2018). *The effect of therapeutic recreational activities on the social development of children with Down syndrome: The example of Elazığ province* (Master's thesis). Fırat University, Department of Recreation Management.
- Borland, R. L., Cameron, L. A., Tonge, B. J., & Gray, K. M. (2022). Effects of physical activity on behavior and emotional problems, mental health, and psychosocial well-being in children and adolescents with intellectual disability: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 35(2), 399–420. <https://doi.org/10.1111/jar.12961>
- Channell, M. M., Mattie, L. J., Hamilton, D. R., Capone, G. T., Mahone, E. M., ... & Down Syndrome Cognition Project. (2021). Capturing cognitive and behavioral variability among individuals with Down syndrome: A latent profile analysis. *Journal of Neurodevelopmental Disorders*, 13, Article 1. <https://doi.org/10.1186/s11689-021-09365-2>
- Dapp, L. C., Gashaj, V., & Roebbers, C. M. (2021). Physical activity and motor skills in children: A differentiated approach. *Psychology of Sport and Exercise*, 54, 101916. <https://doi.org/10.1016/j.psychsport.2021.101916>
- Erdemir, E., & Brutt-Griffler, J. (2020). Vocabulary development through peer interactions in early childhood: A case study of an emergent bilingual child in preschool. *International Journal of Bilingual Education and Bilingualism*, 25(3), 834–865. <https://doi.org/10.1080/13670050.2020.1722058>
- Eren, A., Gec, F., & Calış, D. (2019). A study on visual arts education in children with Down syndrome. *Journal of Academic Social Research*, 97(7), 178–190. <http://doi.org/10.9779/pauefd.1271893>
- Ferjan Ramírez, N., Lytle, S. R., & Kuhl, P. K. (2020). Parent coaching increases conversational turns and advances infant language development. *Proceedings of the*

- National Academy of Sciences*, 117(7), 3484–3491. <https://doi.org/10.1073/pnas.1921653117>
- Franco, E., Ocete, C., Pérez-Calzado, E., & Berástegui, A. (2023). Zihinsel engelli kişilerde fiziksel aktivite ve yaşam kalitesi: Cinsiyetin ve uygulama özelliklerinin rolü. *Davranış Bilimleri*, 13(9), 773. <https://doi.org/10.3390/bs13090773>
- Gao, Z., Lee, J. E., McDonough, D. J., & Albers, C. (2020). Virtual reality exercise as a coping strategy for health and wellness promotion in older adults during the COVID-19 pandemic. *Journal of Clinical Medicine*, 9(6), 1986. <https://doi.org/10.3390/jcm9061986>
- Hitchings, R., & Latham, A. (2019). Qualitative methods I: On current conventions in interview research. *Progress in Human Geography*, 44(2), 389–398. <https://doi.org/10.1177/0309132519856412>
- Ilkim, M., Ozoğlu, F., Simsek, E., & Keskin, M. T. (2021). Parents' evaluation of happiness and self-esteem levels of Down syndrome individuals who participate in regular physical activity and those who do not (The Malatya province example). *ROL Spor Bilimleri Dergisi*, 2(2), 65–71. <https://doi.org/10.29228/roljournal.49921>
- Jung, H. K., Chung, E., & Lee, B. H. (2017). A comparison of the function, activity and participation and quality of life between Down syndrome children and typically developing children. *Journal of Physical Therapy Science*, 29(8), 1377–1380. <https://doi.org/10.1589/jpts.29.1377>
- Lersilp, S., Putthinoi, S., & Panyo, K. (2016). Fine motor activities program to promote fine motor skills in a case study of Down's syndrome. *Global Journal of Health Science*, 8(12), 60–67. <http://doi.org/10.5539/gjhs.v8n12p60>
- Martín-Rodríguez, A., Gostian-Ropotin, L. A., Beltrán-Velasco, A. I., Belando-Pedreño, N., Simón, J. A., López-Mora, C., Navarro-Jiménez, E., Tornero-Aguilera, J. F., & Clemente-Suárez, V. J. (2024). Sporting mind: The interplay of physical activity and psychological health. *Sports*, 12(1), 37. <https://doi.org/10.3390/sports12010037>
- Onnivello, S., Pulina, F., Locatelli, C., Marcolin, C., Ramacieri, G., Antonaros, F., ... & Lanfranchi, S. (2022). Cognitive profiles in children and adolescents with Down syndrome. *Scientific Reports*, 12(1), 1936. <https://doi.org/10.1038/s41598-022-05825-4>
- Romano, M., Kaiser, A., Lounds-Taylor, J., & Woods, J. (2020). Rates of prelinguistic communication and early symbol use in young children with Down syndrome: Using a progress-monitoring tool to model growth. *American Journal of Speech-Language Pathology*, 29(1), 49–62. [https://doi.org/10.1044/2019\\_AJSLP-19-0016](https://doi.org/10.1044/2019_AJSLP-19-0016)
- Sammari, E., & Naceur, A. (2022). The effectiveness of an intervention program for the development of social and emotional capacities of children with a hearing impairment. *Psychology*, 13(7), 1025–1062. <http://doi.org/10.4236/psych.2022.137070>
- Şenlik, Z. A., Kul, M., Karataş, İ., & Mulhim, M. A. (2017). The effect of physical education and sports lessons on the psychological adaptation levels of children with Down syndrome. *International Journal of Cultural and Social Research*, 3(2), 263–282.
- Tekin, S. S., & Tekin, F. (2021). Activity participation and quality of life with adolescents with Down syndrome. *Journal of Exercise Therapy and Rehabilitation*, 8(3), 245–253. <http://doi.org/10.15437/jetr.840003>
- Tong, F. (2022). Breaking down: A critical discourse analysis of John Langdon Down's (1866) classification of people with trisomy 21 (Down syndrome). *Critical Discourse Studies*, 19(6), 648–666. <https://doi.org/10.1080/17405904.2021.1933117>
- Uygun, E. H., & Aslan, S. (2024). The effects of remote education-based game activities on the motor skills of children with Down syndrome. *Pamukkale University Journal of Education Faculty*, 61, 214–235. <https://doi.org/10.9779/pauefd.1271893>
- Van der Woude, L. H. V., Houdijk, H. J. P., Janssen, T. W. J., Seves, B., Schelhaas, R., ... & Vegter, R. J. K. (2021). Rehabilitation: Mobility, exercise & sports; a critical position

- stand on current and future research perspectives. *Disability and Rehabilitation*, 43(24), 3476–3491. <https://doi.org/10.1080/09638288.2020.1806365>
- Yarımkaş, E., İlhan, E. L., & Genç, E. (2016). The effect of physical education and sports activities on the psychological adaptation levels of children. *Journal of Physical Education and Sports Sciences*, 10(1), 141–152.
- Yazıcı, M., & Kepenek-Varol, B. (2021). An investigation of physical activity and performance level in children with Down syndrome. *Türkiye Klinikleri Journal of Health Sciences*, 6, 69–77. <https://doi.org/10.5336/healthsci.2020-75044>
- Zimmer, C., McDonough, M. H., Hewson, J., Toohey, A., Din, C., ... & Bennett, E. V. (2021). Experiences with social participation in group physical activity programs for older adults. *Journal of Sport & Exercise Psychology*, 43(4), 335–344. <https://doi.org/10.1123/jsep.2020-0335>

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