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REVİEW ARTICLE

DOG OWNERSHIP, LEISURE PARTICIPATION AND MENTAL WELL-BEING: A DESCRIPTIVE REVIEW OF WEB OF SCIENCE STUDIES (2006-2024)

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ABSTRACT

This descriptive and thematic literature review synthesizes research exploring the relationships among dog ownership, leisure participation, and mental well-being. A total of 34 peer-reviewed articles indexed in the Web of Science database between 2006 and 2024 were included. The review employed descriptive content analysis and thematic analysis to identify research trends, methodological patterns, and substantive themes within the literature. Findings show that dog ownership has been increasingly studied over the past two decades, especially in Western contexts. Quantitative designs and survey methods were most common. Thematic synthesis revealed three primary patterns: dog ownership as a facilitator of leisure-time physical activity, dog ownership as a social and psychological resource, and dog ownership as a context-dependent experience influenced by individual, environmental, and social conditions. The evidence suggests that dog ownership is associated with higher levels of leisure-time physical activity, enhanced social interaction, and positive mental well-being outcomes, such as reduced loneliness and stress. However, these effects are not universal; financial costs, time commitments, caregiving responsibilities, and contextual constraints may limit the leisure benefits of dog ownership for some individuals. In conclusion, dog ownership should be understood as a multidimensional and conditional factor within the leisure domain rather than a universally beneficial intervention. Theoretically, this study conceptualizes the dual nature of pet ownership by integrating the socio-ecological model with the leisure constraints framework. Practically, these findings offer actionable insights for urban planners and public health professionals to design dog-inclusive public spaces and community wellness programs.The review highlights the need for more diverse, qualitative, and longitudinal research to deepen understanding of how dog ownership interacts with leisure and well-being.

Keywords: Dog Ownership, Leisure, Mental Well-being

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INTRODUCTION

Leisure is widely recognized as a central component of individual quality of life, encompassing activities that individuals voluntarily engage in during their free time for enjoyment, self-expression, and psychological restoration (Iso-Ahola & Baumeister, 2023; Geng et al., 2023; Zhou et al., 2024). Beyond its intrinsic recreational value, leisure participation contributes to physical health, social integration, and psychological well-being across the life course (García-Massó et al., 2025; Kara & Sarol, 2021; Root et al., 2024). Recent empirical evidence underscores that active leisure engagement acts as a dynamic catalyst for life satisfaction and emotional resilience, mitigating modern psychological stressors through structured and unstructured community participation (García-Massó et al., 2025; Root et al., 2024). In recent decades, increasing urbanization, changing work patterns, and heightened psychosocial stress have intensified scholarly interest in leisure as a critical domain for promoting health and well-being (Harrison, 2022; Schmelzer et al., 2023).

Within this context, physical activity has emerged as one of the most frequently examined forms of leisure, given its well-established associations with both physical and mental health outcomes (Watts et al., 2022). Walking has been emphasized as an accessible and sustainable activity that can be integrated into daily routines across diverse populations (Tudor-Locke & Ham, 2008). Alongside traditional forms of leisure-time physical activity, dog ownership has gained increasing scholarly attention as a potential facilitator of regular walking and outdoor activity. The daily responsibilities associated with dog care—most notably dog walking—introduce structured routines that may encourage consistent engagement in leisure-time physical activity (Christian et al., 2013; Reeves et al., 2011).

Beyond physical activity, dog ownership has also been examined in relation to social and psychological dimensions of well-being. Companion animals have been conceptualized as social facilitators that promote informal social interactions and neighborhood engagement, thereby reducing feelings of loneliness and social isolation (Christian et al., 2013; Powell et al., 2019). Emotional attachment to dogs, combined with daily interactions and caregiving responsibilities, has been associated with reduced stress, improved mood regulation, and enhanced mental well-being (Allen, 2003; Endo et al., 2020). These findings position dog

ownership at the intersection of leisure behavior, social connectedness, and psychological health.

However, the relationship between dog ownership, leisure participation, and mental well-being is neither uniform nor universally positive García-Massó et al., 2025; Zijlema et al., 2019). Empirical evidence indicates that the effects of dog ownership vary considerably depending on individual characteristics, socioeconomic conditions, environmental contexts, and dog-related factors such as age, size, and energy level (Hielscher-Zdzieblik et al., 2022; Laine et al., 2019). For some individuals, financial costs, time commitments, and caregiving responsibilities associated with dog ownership may function as constraints on leisure rather than facilitators (Dilek et al., 2020). These mixed findings suggest that dog ownership should not be conceptualized as a universally beneficial condition but rather as a complex and context-dependent phenomenon within the leisure domain.

From a conceptual standpoint, the socio-ecological model provides a useful framework for understanding these dynamics. As emphasized by García-Massó et al. (2025), leisure behaviors and physical health outcomes are not isolated individual choices, but systemic properties shaped by multi-level and multicomponent approaches that integrate individual, social, and environmental factors. Within this framework, dog ownership operates simultaneously as a multi-level influence. At the intrapersonal and interpersonal levels, it drives individual motivation and shapes social interactions through active leisure participation (García-Massó et al., 2025). Concurrently, at the macro-environmental level, it directly mediates engagement with the physical environment, navigating individual access to neighborhoods, parks, and green spaces (Zijlema et al., 2019).

Despite a growing body of research examining dog ownership in relation to leisure and mental well-being, the existing literature remains fragmented across disciplines, research designs, and thematic emphases. While some studies focus primarily on physical activity outcomes, others emphasize psychological well-being, social interaction, or environmental correlates, often in isolation (Christian et al., 2013). As a result, there is a clear need for an integrative synthesis that maps thematic patterns, methodological characteristics, and conceptual orientations within this body of research.

Accordingly, the purpose of this study is to provide a descriptive and thematic review of empirical research examining the relationships between dog ownership, leisure participation, and mental well-being. While the clinical benefits of human-animal interactions are well-documented, a significant gap remains in the recreation literature regarding how these dynamics systematically operate across diverse leisure contexts. Grounded in the socio-ecological model, this review moves beyond isolated effects to explore how dog ownership shapes well-being through nested individual, social, and environmental layers. By reviewing studies published in the Web of Science database between 2006 and 2024, this study aims to identify dominant research trends, thematic focuses, and methodological approaches, as well as to highlight gaps and directions for future research. The rationale for selecting a descriptive and thematic review method lies in its unique capacity to synthesize heterogeneous qualitative and quantitative data, thereby mapping the fragmented conceptual boundaries of the field. Ultimately, rather than establishing causal claims, this review seeks to offer a structured overview of how dog ownership is conceptualized within the leisure literature, aiming practically to inform the design of dog-supportive urban recreation spaces, community health interventions, and inclusive leisure policies.

METHODS

Research Design

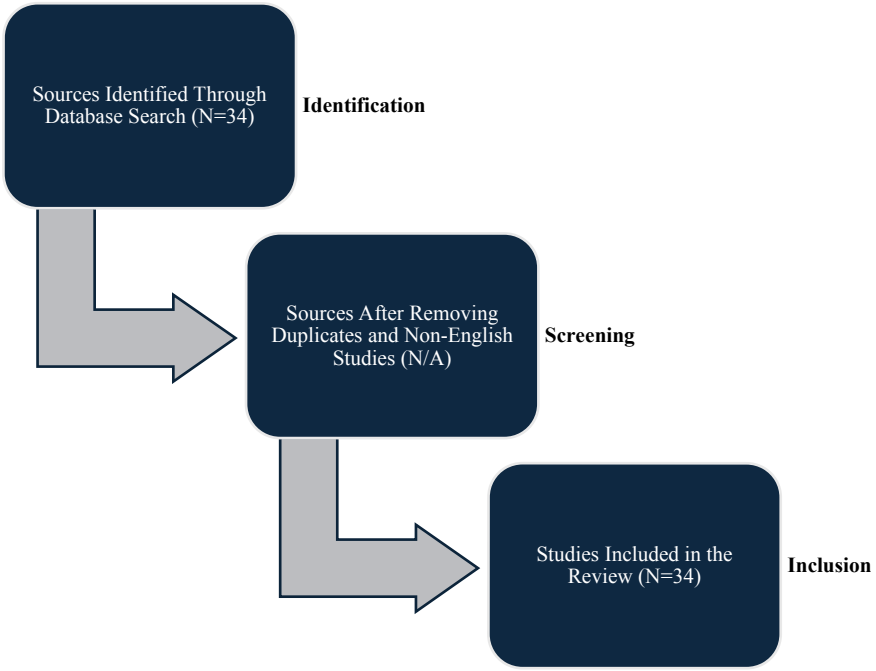
This study was designed as a descriptive and thematic literature review aimed at synthesizing existing research on the relationships between dog ownership, leisure participation, and mental well-being. Rather than testing causal relationships or conducting a systematic review or meta-analysis, the study adopts a descriptive approach to identify research trends, thematic patterns, and methodological characteristics within the literature. This approach is particularly appropriate for organizing and interpreting a multidisciplinary body of research and for highlighting dominant themes and research gaps (Webster & Watson, 2002).

Document analysis was employed as the primary analytical strategy. Through this process, published studies were examined, categorized, and synthesized to provide an integrative overview of how dog ownership has been conceptualized and investigated in relation to leisure and mental well-being. The synthesis was guided by thematic analysis, which enables the identification of recurring patterns and shared meanings across studies while accommodating diverse research designs and disciplinary perspectives (Braun & Clarke, 2006).

Data Sources and Selection Criteria

The literature search was conducted exclusively using the Web of Science (WOS) database, which includes journals indexed in the SCIE, SSCI, and ESCI. The review was limited to studies published between 2006 and 2024. The selection of this 18-year time frame is methodologically and theoretically justified by two primary factors: first, a preliminary scoping search revealed that empirical research specifically intersecting dog ownership with structured leisure frameworks and mental well-being measures was virtually non-existent in major indexes prior to 2006; second, 2006 marks a documented turning point in leisure sciences, following which international public health and recreation frameworks began systematically recognizing companion animals as significant facilitators of community-based physical activity and psychological restoration. The search focused on peer-reviewed journal articles examining the relationship between dog ownership and leisure participation and/or mental well-being. The following search formula was used: ("dog ownership") AND ("mental well-being" OR "leisure" OR "social facilitation" OR "leisure constraints"). Only articles published in English were included. Conference papers, theses, book chapters, and non-peer-reviewed publications were excluded to ensure consistency and quality across the reviewed studies. Based on these criteria, 34 studies were selected and formed the analytical corpus of the review.

Figure 1. Literature Review Flowchart



Data Analysis

The selected studies were analyzed using a combination of descriptive content analysis and thematic analysis. Descriptive content analysis was employed to systematically summarize key characteristics of the reviewed studies, including publication year, country of publication, author discipline, journal characteristics, research design, sample features, and data collection methods (Krippendorff, 2018).

In addition, thematic analysis was used to examine how dog ownership has been linked to leisure participation and mental well-being across the reviewed studies. Following the framework proposed by Braun and Clarke (2006), the analysis focused on identifying recurring themes, conceptual patterns, and points of convergence and divergence in research findings. The aim was not to generate new theory, but to synthesize existing evidence and map dominant thematic emphases within the literature.

The coding process was conducted independently by two researchers to enhance analytical rigor. Initial codes were compared, discussed, and refined through consensus to develop a shared coding framework. The studies were then grouped under broad thematic categories related to dog ownership, leisure participation, and mental well-being, with attention given to how these themes intersected across different populations and research contexts.

Methodological characteristics of the studies—such as publication type, research design, participant age range, sample size, and data collection instruments—were also incorporated into the descriptive analysis. This dual analytical strategy enabled the identification of both substantive thematic patterns and methodological trends within the literature.

Evaluation Framework

Table 1 presents the categories and sub-categories used to evaluate the reviewed studies. These criteria were employed to ensure a consistent and transparent analytical structure across all included publications.

Table 1. Evaluation Criteria of the Studies

Categories	Sub-Categories
Characteristics of the Studies	Publication Year Country of Publication Author Department / Discipline Journal Name Journal Index Journal Impact Factor Number of Citations
Methodological Information of the Studies	Publication Type Research Design / Type Research Topic Participant Age Range Sample Size

	Data Collection Instruments
Findings of the Studies	Key Findings

Limitations

This study has several limitations. First, the review was restricted to studies indexed in the Web of Science database; therefore, relevant research published in other databases or regional journals may not have been included. Second, the analysis was limited to publications between 2006 and 2024, which may exclude earlier foundational studies. Third, only articles published in English were reviewed, potentially overlooking contributions in other languages.

Research Ethics

This study was conducted in accordance with the “Directive on Scientific Research and Publication Ethics in Higher Education Institutions.” Additionally, ethical approval for the research was obtained from the Kırıkkale University Social and Human Sciences Research Ethics Committee during its meeting numbered 07 on 17 July 2025.

FINDINGS

Overview of the Reviewed Studies

The analysis included a total of 34 studies published between 2006 and 2024. As shown in Table 2, research output on dog ownership, leisure, and mental well-being demonstrates a fluctuating pattern over time, with a noticeable increase after 2010 and peak publication years observed in 2021 and 2022. This trend reflects growing scholarly interest in the topic, particularly in relation to public health, active living, and psychosocial well-being.

Geographically, the reviewed studies were predominantly conducted in Australia, the United States, and Northern European countries (Table 3). This concentration indicates that existing evidence is largely grounded in Western cultural and socioeconomic contexts, highlighting a limitation in terms of cross-cultural generalizability.

Table 2. Annual Progression of the Studies

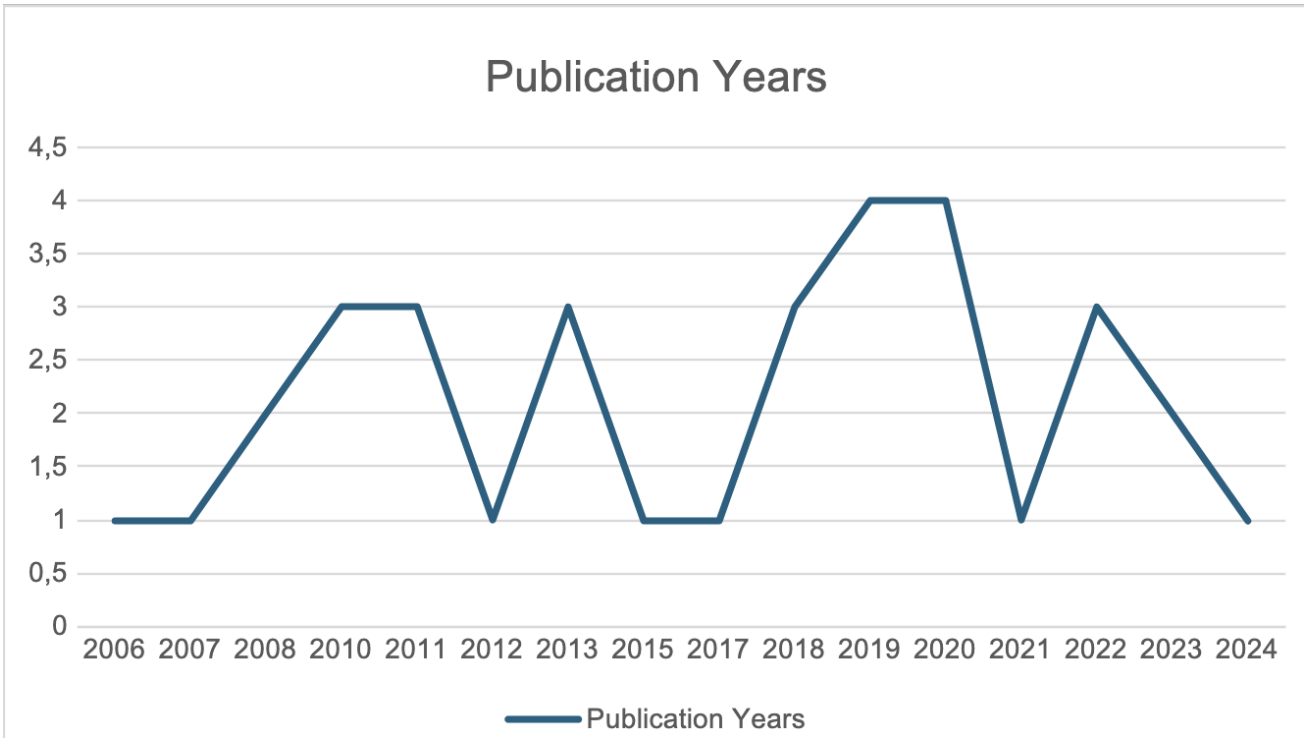


Table 2 presents the annual distribution of publications between 2006 and 2024. The 26 studies included in Table 1 began to appear in WoS in 2006. The findings indicate year-to-year fluctuations in publication output, with no clear upward or downward trend. Peak publication activity was observed in 2021 and 2022, whereas the lowest levels occurred in 2017 and 2023.

Table 3. Countries of Publication of the Studies (Top 10)

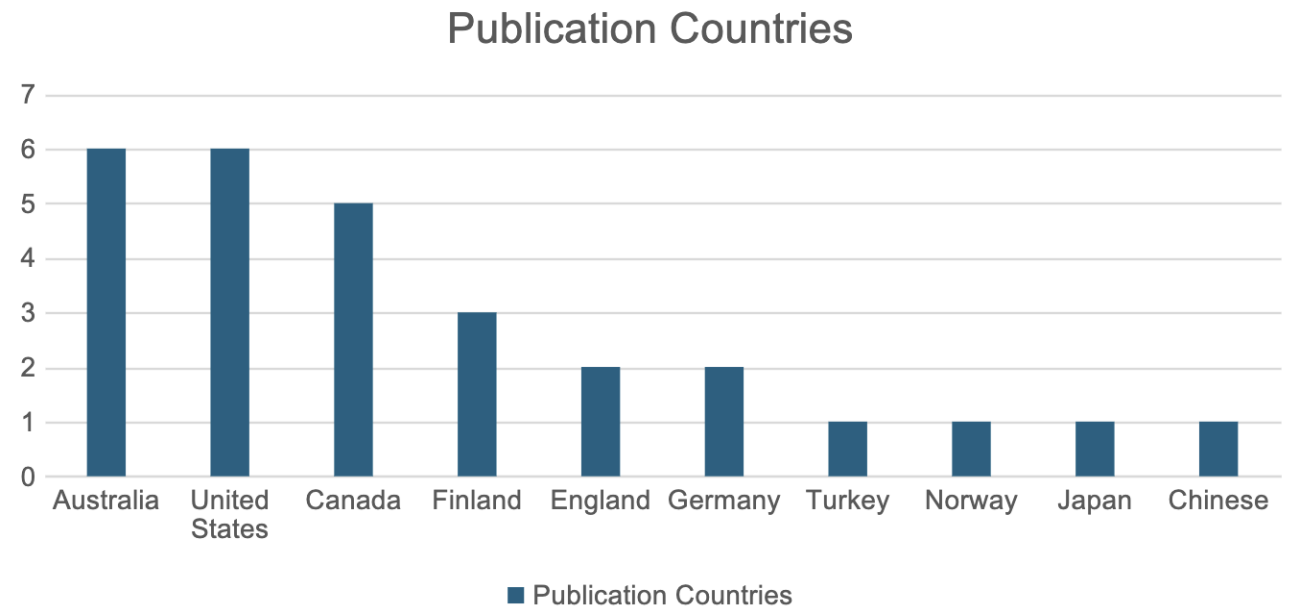


Table 3 presents the country-wise distribution of the studies included in the review. The highest number of publications originated from Australia, the United States, and Canada, followed by a moderate contribution from Finland, the United Kingdom, and Germany. In contrast, Türkiye, Norway, Japan, and China accounted for fewer publications. Overall, these results suggest that research in this field is predominantly concentrated in Western countries.

Table 4. Authors' Departments / Disciplines (Top 10)

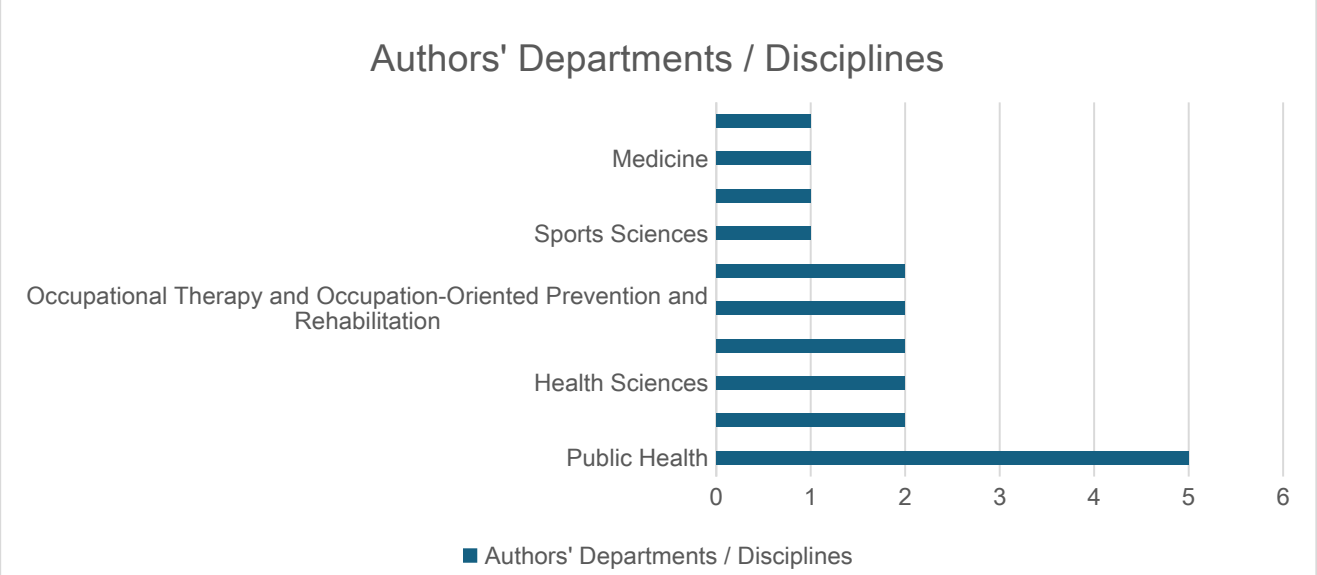


Table 4 presents the disciplinary affiliations of the authors included in the review. Most contributions originate from Public Health and Health Sciences, followed by Exercise and Nutrition, Nursing, Sports Science, and Physical Education, whereas fewer studies come from Pediatrics and Medicine. Overall, the topic is mainly addressed within the health and behavioral science disciplines.

Table 5. Journals of Publication of the Studies (Top 10)

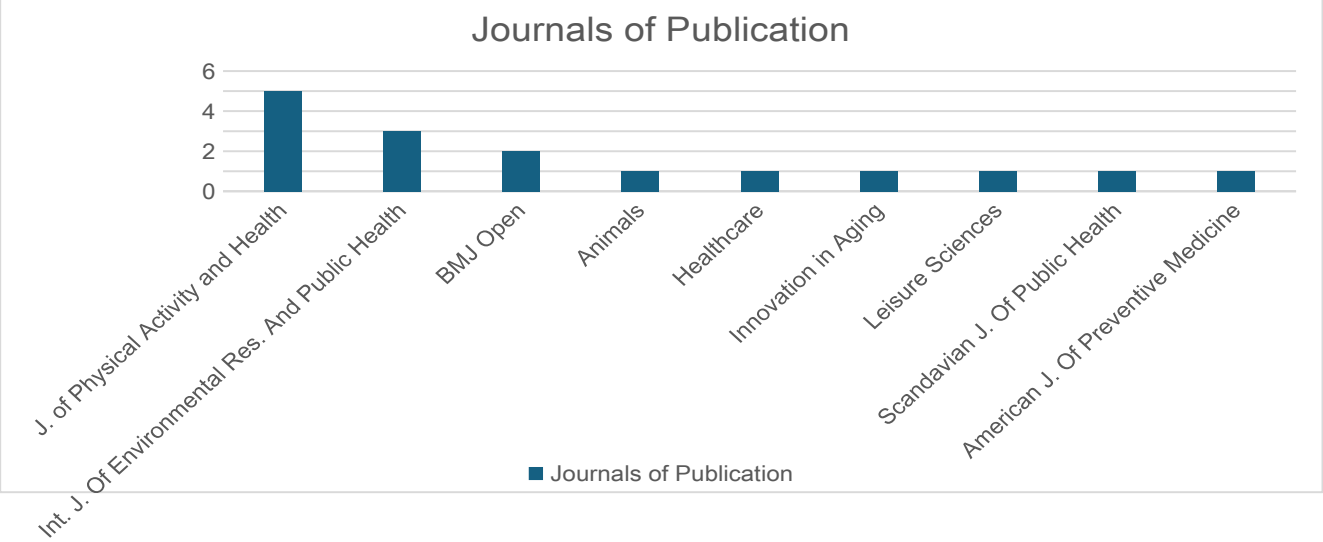


Table 5 presents a vertical bar chart illustrating the distribution of studies across journals. The Journal of Physical Activity & Health accounts for the highest number of publications, markedly exceeding the others, followed by the World Leisure Journal. The remaining journals exhibit relatively similar and lower publication counts.

Table 6. Indexes of the Journals in Which the Studies Were Published

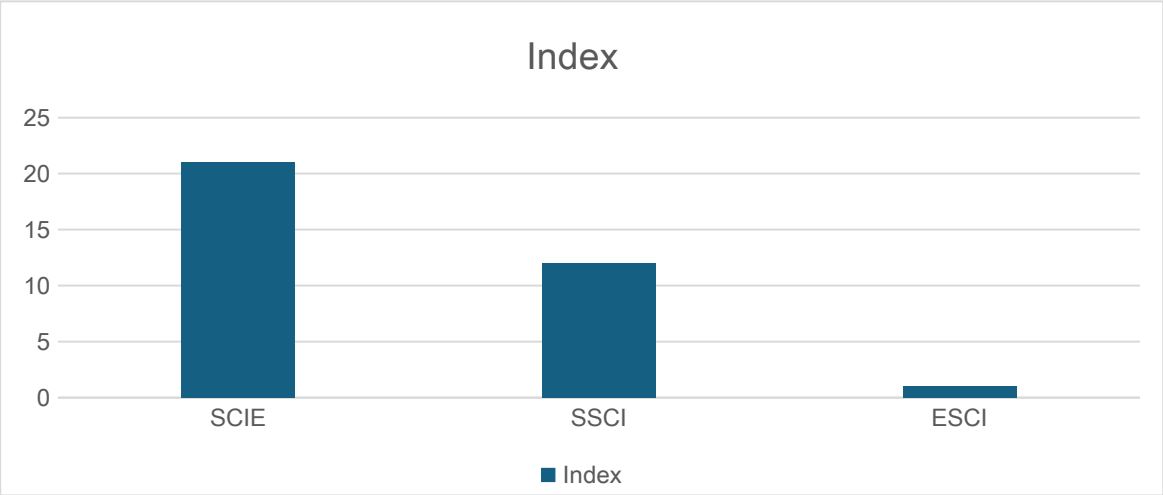


Table 6 presents the distribution of journal indexes for the included studies. Most publications appeared in SCI-indexed journals, indicating high-impact outlets, followed by a smaller number in SSCI. A limited number were published in ESCI-indexed journals, reflecting contributions in emerging sources.

Table 7. Impact Factors of the Journals in Which the Studies Were Published

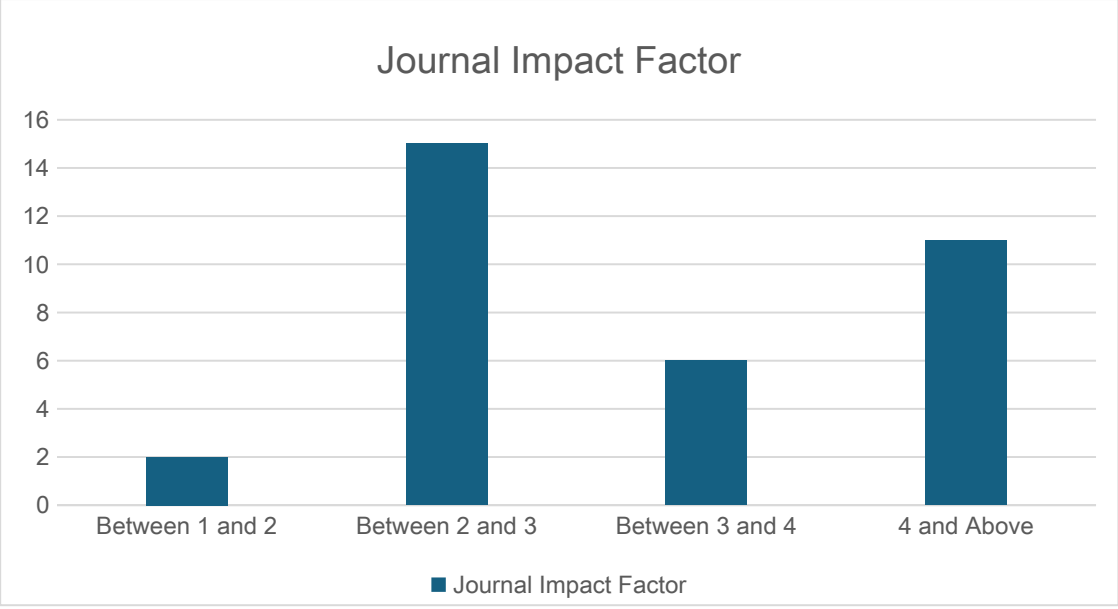


Table 7 presents the distribution of journals by impact factor ranges. Most studies were published in journals with impact factors between 2 and 3, followed by those with impact factors of 4 or higher. Fewer publications appeared in the 3–4 and 1–2 ranges, indicating that the majority of studies were published in medium- to high-impact.

Table 8. Number of Citations of the Publications

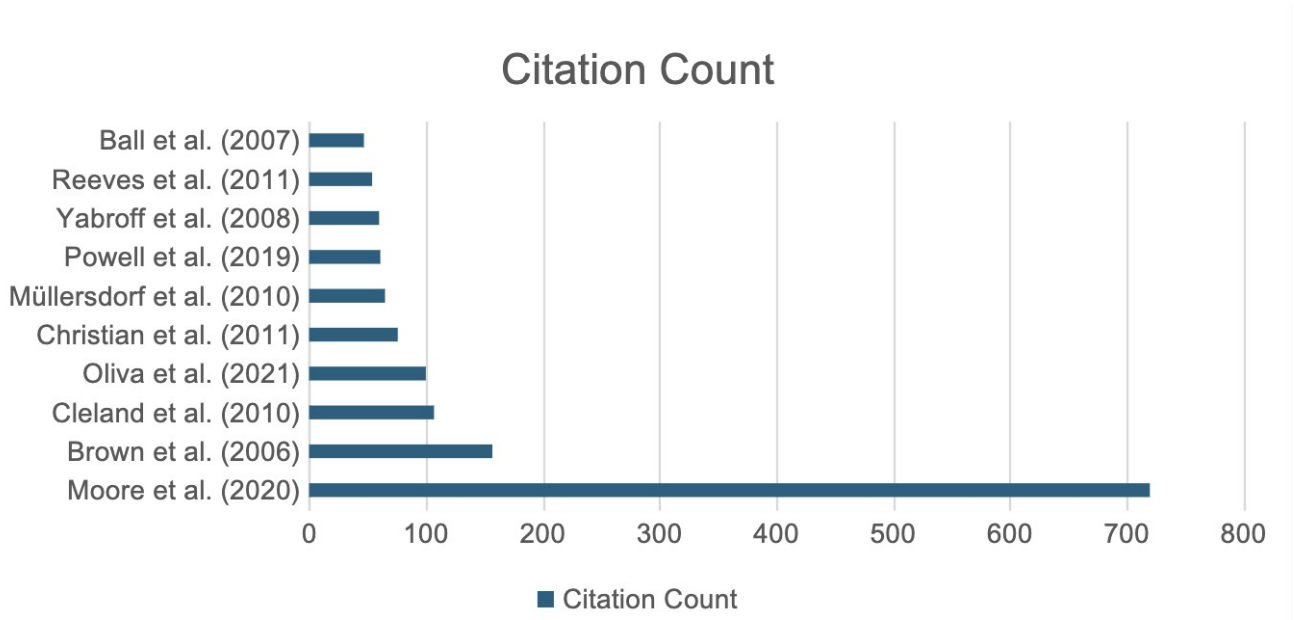


Table 8 presents the citation counts of publications between 2006 and 2024. The findings indicate that Cleland et al. (2010) and Kylie et al. (2007) received the highest number of citations, clearly surpassing other studies. Several others (e.g., Jessica et al., 2020; Christian et al., 2011; Yabroff et al., 2008; Powell et al., 2019; Reeves et al., 2011) also show notable citation impact, whereas the remaining publications exhibit relatively lower citation counts.

Table 9. Methodological Information and Findings of the Studies

Study	Publication Type	Research Design	Research Topic	Age Range	Sample Size	Data Collection Instruments	Findings
Brown and Rhodes (2006)	Research Article	Quantitative	Examination of Dog Ownership, Physical Activity Levels, and Psychological Factors	20-80	351	Survey	Dog owners engage in more low- and moderate-intensity physical activity compared to non-dog owners.
Ball et al. (2007)	Research Article	Quantitative	Examining the contributions of personal, social (e.g., dog ownership), and environmental factors to socioeconomic inequalities in women's leisure walking and walking for transportation.	18-65	1.282	Survey	Among women with lower educational levels, the combined influence of personal, social, and environmental factors plays a significant role in lower leisure walking levels.
Yabroff et al. (2008)	Research Article	Quantitative	Investigating the relationship between pet ownership and physical activity among adults living in California.	Individuals aged 18 and above	41.514	Survey	Dog owners are more likely to participate in leisure walking than non-owners.
Tudor-Locke and Ham (2008)	Research Article	Quantitative	Exploring the relationship between dog ownership and leisure walking and physical activity levels among adults in Western Canada, including potential psychological mediators.	Individuals aged 15 and above	34.693	Survey	Between 2003 and 2005, 45.8% of Americans engaged in some form of walking activity on an average day for approximately 45 minutes; 31.6% walked for shopping, 12.5% for transportation, 4.8% for exercise, and 2.5% walked their dog.
Müllersdorf et al. (2010)	Research Article	Quantitative	Examining differences in health, physical/leisure activities, employment status, and socio-demographic characteristics between pet owners and non-owners.	35-49	39.995	Survey	Pet owners differ from non-owners in terms of socio-demographic characteristics, health, physical/leisure activities, and employment status; however, some differences can be explained by age, and the relationships between pet ownership and health require further specific investigation.
Cleland et al. (2010)	Research Article	Quantitative	Assessing recommended physical activity levels among women with low socioeconomic status.	N/A	291	Survey	Participation in physical activity is influenced by multiple factors, including personal (e.g., intention), social (e.g., dog ownership), and environmental (e.g., safety) factors. Nearly 40% of participants do not achieve the recommended 150 minutes of weekly leisure-time physical activity.
Cleland et al. (2010)	Research Article	Quantitative	Investigating individual, social, and environmental factors	18-45	4.108	Survey	Physical activity is a critical determinant of health, yet women living in socioeconomically

			influencing physical activity among women living in socioeconomically disadvantaged neighborhoods.				disadvantaged neighborhoods often face unique challenges in maintaining an active lifestyle. Understanding the individual, social, and environmental factors affecting physical activity is essential for developing effective interventions.
Vaara and Matero (2011)	Research Article	Mixed	Examining the determinants of daily participation and time use in nature-based outdoor recreation among the Finnish population.	Individuals aged 10 and above	10.278	Survey	Decisions regarding participation and time use in nature-based outdoor recreation are influenced by various factors. Dog ownership increases daily participation rates by 17.5%, extends daily activity time by 13 minutes, and women participate more frequently but spend less time overall.

Study	Publication Type	Research Design	Research Topic	Age Range	Sample Size	Data Collection Instruments	Findings
Reeves et al. (2011)	Research Article	Quantitative	To examine the extent to which dog walking promotes leisure-time physical activity (LTPA) and to identify the characteristics of dog walkers.	Individuals aged 18-65 and above	5.902	Survey	Individuals who walk their dogs are 34% more likely to achieve at least 150 minutes of walking per week compared to non-dog owners.
Christian et al. (2011)	Research Article	Quantitative	Using data from the RESIDE project (2003–2005) with 1,151 participants in Western Australia to investigate individual, behavioral, social, and built environment factors associated with body mass index (BMI).	28-52	1.551	Survey	BMI was associated only with certain health behaviors and perceived environmental factors, whereas social capital, social cohesion, dog ownership, and built environment features showed no significant effect on BMI.
Westgarth et al. (2012)	Research Article	Quantitative	To examine whether pregnant women who own dogs are more physically active and less prone to obesity.	N/A	14.273	Self-Report	Mothers who own dogs are more likely to participate in at least one physical activity session per week compared to those without dogs.
Gretebeck et al. (2013)	Research Article	Quantitative	To identify factors influencing walking among older adults and to examine physical activity, functional capacity, and psychosocial characteristics according to dog ownership status.	65-95	1.091	Scale	Older adults who own dogs and walk them regularly engage in more walking, have higher levels of physical activity and functional capacity, and exhibit more positive psychosocial characteristics compared to other groups; dog ownership serves as a motivational factor promoting walking among older adults.
McCormac	Research	Quantitative	To investigate the influence of	18-60	4.422	Scale	Walkability, social support (e.g., dog ownership),

k et al. (2013)	Article		physical and social environments on physical activity motivation and walking behavior through variables of the Theory of Planned Behavior (TPB).				and Theory of Planned Behavior variables partially mediate and influence walking behavior for transportation and recreational purposes.
Solomon et al. (2013)	Research Article	Quantitative	To explore the personal, social, and environmental correlates of physical activity behavior among adults living in rural villages.	18-65	2.415	Survey	Individual factors such as gender, health status, commitment to physical activity, habits, social norms, and use of recreational spaces were identified as the strongest determinants of physical activity behavior.
McCormack and Mardinger (2015)	Research Article	Quantitative	To examine the relationship between individual characteristics and neighborhood walkability (assessed both structurally and subjectively) with adults' leisure-time screen-based sedentary behavior.	30-65	1.906	Survey	Adults living in structurally highly walkable neighborhoods spend less time in sedentary screen-based activities, suggesting that enhancing walkability may be effective in reducing sedentary behavior.
Nordh et al. (2017)	Research Article	Quantitative	To examine the relationship between individual characteristics and neighborhood walkability (assessed both structurally and subjectively) with adults' leisure-time screen-based sedentary behavior.	Individuals aged 18 and above	780	Survey	Dog ownership has been identified as a key factor encouraging individuals to walk more frequently in their neighborhoods.
Liao et al. (2018)	Research Article	Quantitative	To examine dog ownership, dog-walking prevalence, and their association with leisure walking among older adults in metropolitan and non-metropolitan areas.	Individuals aged 65-85 and above	1.074	Survey	Older Taiwanese adults living in non-metropolitan areas who walk their dogs are more likely to engage in leisure walking at levels that positively impact their health.

Study	Publication Type	Research Design	Research Topic	Age Range	Sample Size	Data Collection Instruments	Findings
Wasenius et al. (2018)	Research Article	Quantitative	To examine the relationship between dog ownership across the life course and leisure-time	68-74	714	Survey	Dog ownership after the age of 40 was associated with higher total and unstructured leisure-time physical activity in later adulthood.

			physical activity in later adulthood.				
Jansen et al. (2018)	Research Article	Quantitative	To investigate adults' hourly physical activity patterns and identify which individuals adopt specific activity patterns.	45-65	406	Akselerometre Ölçümü	Adults with different socio-demographic and environmental characteristics exhibited distinct physical activity patterns; dog ownership influenced these patterns, with activity levels peaking in the morning or midday and declining in the evening.
Laine vd. (2019)	Research Article	Quantitative	To examine the association between dog ownership across the life course and the development of type 2 diabetes (T2D).	68-74	731	Scale	Life-course dog ownership was examined in relation to type 2 diabetes (T2D), and no protective effect of dog ownership against T2D development was observed around age 70.
Zijlema et al. (2019)	Research Article	Quantitative	To investigate the relationships between dog ownership, walking, time spent in natural outdoor environments, and health outcomes.	18-75	3.586	Scale	Dog ownership was associated with higher rates of leisure walking and time spent in natural outdoor environments.
McCormack et al. (2019)	Research Article	Quantitative	To examine the relationship between adults' weekly transportation and leisure-time physical activity levels across neighborhoods with different designs.	Individuals aged 20 and above	1.023	Survey	Neighborhood design was related to adults' physical activity patterns, independent of neighborhood selection reasons and socio-demographic factors.
Powell et al. (2019)	Research Article	Quantitative	To assess the effects of acquiring a pet dog on loneliness, positive and negative affect, and psychological distress.	36-51	71	Survey	Dog owners reported forming new social interactions through their pets, contributing to reduced feelings of loneliness.
Brown and Jensen (2020)	Research Article	Quantitative	To explore the association between dog ownership and walking by comparing walking distance and physical activity measurements among dog owners and walking groups.	26-57	N/A	Accelerometer Measurement	Walking distance was more consistently associated with dog ownership and walking groups.
Endo vd. (2020)	Research Article	Quantitative	To investigate whether the ownership of the most popular pets (dogs and cats) predicts mental well-being.	10-12	2.584	Survey	Dog ownership had a positive effect on mental well-being compared to non-ownership, whereas cat ownership showed a negative association with mental well-being compared to non-ownership.
Chen et al. (2020)	Research Article	Qualitative	To examine how dog ownership among urban empty-nest families contributes to diversifying older adults' social networks and improving their health.	60-88	10	Observation, Semi-Structured Interview	Urban empty-nest adults engaged in outdoor activities with their dogs, establishing diverse social connections, which served as a creative social practice improving happiness and physical functioning in older adults.

Moore et al. (2020)	Research Article	Quantitative	To investigate the adverse effects of COVID-19 restrictions on movement and play behaviors among children and youth in Canada.	Parents with children aged 5–17 years	1472	Survey	COVID-19 negatively impacted the movement and play behaviors of children and youth in Canada, highlighting the importance of health protection and promoting active lifestyles; dog ownership was identified as supportive for fostering healthy behavioral patterns.

Study	Publication Type	Research Design	Research Topic	Age Range	Sample Size	Data Collection Instruments	Findings
Oliva and Johnston (2021)	Research Article	Quantitative	Examining loneliness, mindfulness, and mood levels of Australians living alone during the COVID-19 lockdown.	23-89	384	Survey	Dog ownership has a protective effect against loneliness and establishes a routine for outdoor activity.
Hielscher-Zdzieblik et al. (2022)	Research Article	Quantitative	Assessing how physical activity levels of dog owners change as their dogs age and investigating differences in physical activity among owners of different dog breeds.	24-62	435	Survey	Dog owners' types of physical activity vary according to the breed of their dog, while the dog's age, size, and energy level do not have a significant impact on the owners' physical activity.
Hielscher-Zdzieblik et al. (2022)	Research Article	Quantitative	Investigating how acquiring a puppy influences participants' long-term physical activity behaviors.	33-56	38	Survey	Acquiring a puppy increases physical activity, and this effect persists even during the COVID-19 pandemic, contributing to long-term physical health benefits.
Rathish et al. (2022)	Research Article	Qualitative	Examining the effects of dog ownership on personal and family health.	40-65	24	Semi-Structured Interview	Dog ownership enhances mental well-being, and village dogs are also adopted as pets.
Friedmann et al. (2023)	Research Article	Quantitative	Exploring the impact of pet ownership, particularly dog ownership, on the maintenance of physical function and leisure-time physical activity in aging healthy adults.	50-100	637	Scale	Pet ownership contributes to the maintenance of physical function among healthy older adults in the community, although dog walking itself does not have an independent effect.
D'Hooghe et al. (2023)	Research Article	Qualitative	Identifying environmental factors affecting leisure-time walking participation among socioeconomically disadvantaged individuals.	36-60	38	Focus Group Interview	Environmental factors influencing walking among socioeconomically disadvantaged individuals—such as digital literacy, physical, socio-cultural (e.g., dog ownership), and economic factors—are important, and local governments should integrate these factors into decision-making processes.
Orhan et al. (2024)	Research Article	Qualitative	Examining the relationship between physical and mental	Individuals aged 31-51	20	Semi-Structured Interview	Dog ownership provides positive effects on women's physical and mental health, including

	health among women who own dogs.	and above	stress, anxiety, mood, and social connections. Ownership entails responsibilities and may involve encountering various challenges.

Thematic Findings

Based on the thematic analysis, the findings were organized into three overarching themes:

(1) dog ownership as a facilitator of leisure-time physical activity,

(2) dog ownership as a social and psychological resource, and

(3) dog ownership as a context-dependent and conditional experience.

Theme 1: Dog Ownership as a Facilitator of Leisure-Time Physical Activity

A substantial proportion of the reviewed studies emphasize the role of dog ownership in promoting leisure-time physical activity, particularly walking. Quantitative evidence consistently indicates that dog owners engage in more frequent and longer-duration walking compared to non-owners. Studies conducted across diverse age groups—including children, adults, and older adults—demonstrate that dog walking contributes to achieving recommended physical activity levels and maintaining functional capacity, especially in later life (Reeves et al., 2011; Gretebeck et al., 2013).

Several studies highlight that dog ownership introduces routine and obligation into daily life, which serves as a motivational mechanism for regular physical activity. This effect is particularly pronounced among older adults and individuals with otherwise sedentary lifestyles. In addition, environmental factors such as neighborhood walkability and access to green spaces interact with dog ownership to further support leisure walking and outdoor activity (McCormack et al., 2013; Zijlema et al., 2019).

Theme 2: Dog Ownership as a Social and Psychological Resource

Beyond physical activity, dog ownership is frequently associated with enhanced social interaction and improved psychological well-being. The reviewed literature indicates that dogs function as social facilitators, increasing opportunities for informal social contact in neighborhoods and public spaces. This effect is especially evident among individuals living alone and during periods of social restriction, such as the COVID-19 pandemic (Oliva & Johnston, 2021).

Psychologically, dog ownership has been linked to reduced levels of loneliness, stress, and anxiety, as well as improved mood and emotional regulation. Emotional attachment, companionship, and caregiving responsibilities associated with dogs provide individuals with a sense of purpose and emotional support. Both quantitative and qualitative studies suggest that these psychosocial benefits contribute to overall mental well-being and reinforce sustained engagement in leisure activities (Endo et al., 2020; Powell et al., 2019).

Theme 3: Dog Ownership as a Context-Dependent and Conditional Experience

Despite predominantly positive findings, the reviewed studies also reveal that the effects of dog ownership are not uniform across individuals or contexts. Several studies report that physical activity levels and leisure experiences vary according to factors such as the dog's age, breed, and energy level, as well as the owner's motivations, socioeconomic status, and living environment (Hielscher-Zdzieblik et al., 2022).

Moreover, dog ownership may introduce constraints related to financial cost, time commitment, and caregiving responsibilities, which can limit leisure participation for some individuals. These constraints are particularly salient among individuals with limited resources or demanding work schedules. As such, dog ownership should be understood not as a universally beneficial condition, but as a complex leisure-related factor with both facilitating and constraining dimensions (Dilek et al., 2020).

Methodological Trends

As summarized in Table 9, the majority of reviewed studies employed quantitative research designs and relied heavily on self-report survey methods. While this approach allows for large sample sizes and generalizable findings, the limited number of qualitative and mixed-method studies constrains deeper understanding of lived experiences and contextual dynamics. This methodological imbalance suggests a need for more qualitative and longitudinal research to complement existing evidence.

DISCUSSION

This descriptive and thematic review examined the relationships between dog ownership, leisure participation, and mental well-being by synthesizing 34 studies published between 2006 and 2024 in the Web of Science database. Overall, the findings indicate that dog ownership is associated with leisure behaviors and mental well-being in complex and multidimensional ways, shaped by physical, social, and environmental contexts rather than operating as a uniform or universally beneficial factor.

When interpreted through the lens of the socio-ecological model, the reviewed studies demonstrate that dog ownership is frequently linked to increased leisure-time physical activity, particularly walking (Cutt et al., 2008; García-Massó et al., 2025; Zijlema et al., 2019). At the intrapersonal level, dog walking introduces routine, responsibility, and external motivation into daily life, which may help individuals maintain regular physical activity habits over time. This effect appears especially salient among older adults and individuals with lower baseline activity levels, for whom dog ownership may function as

a catalyst for maintaining mobility and functional capacity. Importantly, however, these benefits are not solely attributable to dog ownership itself but emerge through interactions with macro-environmental conditions such as neighborhood walkability, access to green spaces, and perceived safety (Zijlema et al., 2019).

Beyond physical activity, the findings highlight the role of dog ownership as an interpersonal social and psychological resource. Within the socio-ecological framework, dogs frequently act as social facilitators, increasing opportunities for informal social interaction and neighborhood engagement (García-Massó et al., 2025). This social dimension of dog ownership appears particularly meaningful for individuals living alone and during periods of social restriction, such as the COVID-19 pandemic (Zijlema et al., 2019). Across both quantitative and qualitative studies, dog ownership has been associated with reduced loneliness, stress, and anxiety, as well as improved emotional regulation and perceived mental well-being (García-Massó et al., 2025). These findings support the view that companion animals can provide emotional support and contribute to psychological resilience through daily interaction, attachment, and caregiving routines.

At the same time, the leisure constraints approach provides a critical framework for understanding that the effects of dog ownership are context-dependent and conditional. Several studies emphasize that leisure participation and physical activity outcomes vary according to dog-related characteristics (e.g., age, breed, energy level), owner characteristics (e.g., motivation, socioeconomic status, health status), and environmental conditions. In some cases, dog ownership introduces structural and interpersonal constraints rather than facilitating leisure participation. Financial costs, time demands, and caregiving responsibilities associated with pet ownership function as barriers that limit broader leisure opportunities, particularly for individuals with limited resources or demanding work schedules. These findings challenge overly romanticized representations of dog ownership and underscore the importance of viewing it as a dynamic and situational factor within the leisure domain, where constraints must actively be negotiated.

Methodologically, the literature is dominated by quantitative research designs, with a strong reliance on self-report survey data (García-Massó et al., 2025; Zijlema et al., 2019). While this has enabled large-scale examinations of associations between dog ownership, physical activity, and mental well-being, it also limits understanding of lived experiences, meanings, and contextual nuances. The relatively small number of

qualitative and mixed-method studies suggests that important aspects of dog ownership—such as emotional attachment, negotiation of leisure constraints, and everyday caregiving practice—remain underexplored. Longitudinal designs are also limited, restricting insight into how the impacts of dog ownership evolve across the life course.

Furthermore, the geographic concentration of studies in Australia, North America, and Northern Europe constrains the generalizability of existing findings. Cultural norms surrounding pet ownership, urban design, housing conditions, and leisure practices may substantially shape how dog ownership influences leisure and mental well-being.

To address these limitations, future research directions must be framed more clearly around diverse populations; specifically, conducting empirical studies in non-Western and lower-income cultural contexts is critical for testing the cross-cultural generalizability of current theoretical frameworks and uncovering unique structural determinants.

Taken together, the findings of this review suggest that dog ownership should not be conceptualized as a simple or universally effective intervention for enhancing leisure participation or mental well-being. Rather, its effects emerge through complex interactions between individual motivations, social relationships, environmental contexts, and structural constraints. Recognizing this complexity across socio-ecological and leisure constraint layers is essential for both researchers and practitioners seeking to understand or promote the potential benefits of dog ownership within leisure and public health frameworks.

CONCLUSIONS

This descriptive and thematic review synthesized research published between 2006 and 2024 to examine the relationships between dog ownership, leisure participation, and mental well-being. Overall, the findings indicate that dog ownership is associated with leisure behaviors and psychological outcomes through multiple interacting pathways rather than through a single, uniform mechanism.

Across the reviewed studies, dog ownership emerged as a notable facilitator of leisure-time physical activity, particularly walking. The daily responsibilities and routines associated with dog care appear to support more regular engagement in outdoor and physically active leisure practices. In addition to physical activity, dog ownership was consistently linked to social interaction and psychological well-being, including reduced loneliness, stress, and anxiety, as well as enhanced emotional support and daily structure.

However, the findings also demonstrate that the effects of dog ownership are context dependent. Individual characteristics, socioeconomic conditions, environmental factors, and dog-related attributes shape whether dog ownership functions as a facilitator or a constraint within the leisure domain. For some individuals, the financial, temporal, and caregiving demands associated with pet ownership may limit leisure participation rather than enhance it. These results underscore the importance of avoiding overly generalized or romanticized interpretations of dog ownership as a universal pathway to improved well-being.

Taken together, this review highlights dog ownership as a multidimensional leisure-related phenomenon whose potential benefits for mental well-being and active living depend on broader social and environmental contexts. Theoretically, this study contributes to the recreation literature by bridging the socio-ecological model with the leisure constraints approach, offering a integrated conceptual lens to analyze how companion animals simultaneously act as catalysts and responsibilities. Practically, these insights provide a strategic framework for urban planners and public health professionals to design dog-supportive green infrastructure, minimize structural recreation barriers, and develop targeted community health interventions. Recognizing this complexity is essential for advancing research and informing practice in leisure studies, public health, and related fields.

RECOMMENDATIONS

Future research would benefit from extending investigations beyond predominantly Western contexts to include diverse cultural, socioeconomic, and environmental settings. Comparative and cross-cultural studies can offer a more nuanced understanding of how cultural norms, housing conditions, and urban design shape the relationships between dog ownership, leisure participation, and mental well-being.

Given the strong dominance of quantitative research designs in the existing literature, greater use of qualitative and mixed-method approaches is recommended. Such approaches can deepen understanding of lived experiences, emotional meanings, and everyday negotiations surrounding leisure constraints and caregiving responsibilities associated with dog ownership. Longitudinal designs may further illuminate how these relationships evolve across different stages of the life course.

Greater attention should also be directed toward inequalities and constraints related to dog ownership, including financial costs, time demands, and access to suitable outdoor environments. Addressing these factors is essential when considering dog

ownership within leisure promotion and public health strategies, as ownership may function as both a facilitator and a constraint depending on contextual conditions.

From a practical perspective, dog ownership should be approached not as a stand-alone intervention but as one component within broader strategies aimed at promoting active living, social connection, and mental well-being. Policies supporting walkable neighborhoods, accessible green spaces, and pet-friendly environments may enhance the leisure-related benefits of dog ownership while minimizing potential limitations.

Author Contributions

All authors contributed equally to the study.

Conflict of Interest Statement

The authors declare that there are no conflicts of interest or competing interests related to this study.

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