

# Relationship between Social Support and Physical Exercise Adherence: A Systematic Review

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## Abstract

In general, it is recommended by the World Health Organisation that individuals engage in at least sixty minutes of physical exercise. However, the guidelines or daily minimum required physical activities for adolescents necessitate substantial exercise. The study aims to explore the various sources of support and the relationship between adolescents' social support and physical activity adherence in their daily lives. This study utilised a systematic review of five major databases, without any time restrictions, and without limiting the geographical scope. The PRISMA technique was employed, resulting in the inclusion of approximately 86 publications that met the criteria. The studies revealed that parents, family, peers, friends, and teachers play a crucial role in providing social support. Irrespective of the sources of social support, there is a range of effects and relationships between social support and physical activity in adolescents, which can vary from positive to negative. Therefore, certain research studies suggest that encouraging adolescents or children to engage in physical exercise may result in them resisting the pressure and exhibiting lower levels of activity. Thus, fostering knowledge and promoting awareness about health can help adolescents engage in physical activity.

**Keyword:** Social Support, Parent Support, Peer Support, Coach/Teacher Support, Physical Exercise Adherence.

## Introduction

The increasing health concern among children and adolescents has garnered significant attention from parents and civil societies. As a result, physical education has become a mandatory part of the curriculum to promote the well-being and active, healthy lifestyle of adolescents (Mendonça & Farias Júnior, 2015). The rate of adolescents' daily physical activity participation is significantly below the guidelines set by the World Health Organization (WHO) (2022). The studies conducted by Kushi et al. (2012) and Al-Dalaeen et al. (2023) found that regular engagement in physical activity (PA) is associated with numerous health benefits, including a reduced risk of cardiovascular disease, cancer, depression, and anxiety. Conversely, individuals who are inactive in PA are more susceptible to these diseases. The benefits of participating in sports activities for physical and mental well-being are widely acknowledged. However, only a minority of individuals are able to sustain a regular exercise regimen in the long run (Garber et al., 2011). Sperandei et al. (2016)

reported a 63% discontinuation rate of physical activity among adults within one year. The prevalence of adult engagement in modern technologies has become a trend among both adults and children.

Mobile applications have been found to interrupt and significantly reduce individuals' long-term commitment to exercise (Lin et al., 2024). Consistent long-term exercise routines are necessary to achieve desired outcomes, as short-term exercises may not yield intended results (Sperandei et al., 2016). Long-term physical exercise goals can be achieved through appropriate guidance and social support (Hu et al., 2021; Laird et al., 2016). Engaging in regular physical exercise over an extended period of time presents a significant challenge. According to Picorelli et al. (2014), many teenagers and youth tend to neglect participating in exercise. However, schools often encourage children to engage in physical activities and sports (Hu et al., 2021; Picorelli et al., 2014). Chen et al. (2020) found that although there is a recommendation for adolescents to participate in at least one hour of medium to high-intensity exercise or physical

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activities daily, most teenagers stop engaging in physical activities after their physical education (PE) class. Snowden et al. (2015) have reported a similar finding, indicating a deficiency in social support from family and friends as well as a lack of long-term health awareness benefits (Chen et al., 2020). The issue of consistent participation in physical exercise is a significant concern for parents and educators worldwide (Bum, 2018; Ke & Huang, 2023). Bum (2018) conducted a study on self-exercise commitment and adherence. The findings indicated that constructive thought, focused behaviour, and natural reward significantly enhance the intention to engage in daily sports and physical exercise. Engagement in a daily physical exercise programme is a critical challenge influenced by multiple factors (Anam, 2023; Azizan et al., 2013).

According to Cohen-Mansfield et al. (2003), the main factors contributing to non-adherence to physical exercise are a lack of motivation and perceived barriers to desired behaviour. Exercise adherence, as defined by Annear et al. (2019), is the consistent and voluntary engagement in regular physical exercise over a prolonged period with the aim of achieving personal goals. Social support is a key concept in various theories, including planned behaviour and socio-cognitive theories, as well as health beliefs and socio-ecological models, which aim to explain physical exercise behaviour (Shen et al., 2018). Social support refers to the deliberate provision of assistance from various sources, such as parents, teachers, friends, and other members of society (Lindsay Smith et al., 2017). Mendonça et al. (2014) found a positive correlation between social support and physical exercise involvement in adolescents. Researchers in a prior study identified social support as essential for physical activities. Social support plays a significant role in promoting positivity among adolescents. There is a lack of research on the relationship between social support and physical activity in China and low-income countries. Most studies have been conducted in high-income countries and have used non-representative samples that focus on specific age groups. Prior research has investigated the relationship between different types and sources of social support and physical activity. It has been found that the association between social support and physical activity varies depending on factors such as age, gender, and the sources of support, including parents, teachers, and friends. This study aims to conduct a systematic review to examine the relationship between social support and physical exercise adherence in adolescents.

## Methodology

This study utilised a comprehensive literature review to conduct a Systematic Literature Review (SLR), which is an exploratory research approach. The objective of the SLR

study is to...The purpose of an SLR study is to conduct a comprehensive examination of the existing literature on a specific subject (Eather et al., 2013; Van Dinter et al., 2021). The benefits of using a systematic literature review (SLR) include gaining an understanding of current knowledge, identifying gaps in research, and establishing a basis for a conceptual framework. The study adhered to the PRISMA guidelines for systematic reviews and meta-analyses (Liberati et al., 2009; Moher et al., 2009).

### Search Strategy and Criteria

The search criteria included reputable databases such as Web of Science (WoS), Scopus, PubMed, Education Resources Information Centre (ERIC), and SportDiscus, with no restriction on the year of publication. The study employed a keyword search to group the following terms: "Parent Support", "Friends Support", "Peer Support", "Coach Support", "Perceived Coach/Teacher Autonomy Support", "Teacher Support", "Perceived Parental Autonomy Support", "Perceived Peer Autonomy Support", "Exercise Persistence", and "Exercise Adherence".

### Inclusion Criteria

The research articles undergo peer review by reputable journals indexed in the mentioned databases and are published in both English and Chinese. The published paper did not specify a period or year. Therefore, all publications related to the main keywords of the studies are included. Research has examined the association between social support and adherence to physical exercise, utilising various methods including empirical studies, case studies, surveys, and experimental studies.

### Exclusion Criteria

Excluded from consideration were research articles that had not undergone the rigorous peer-reviewed process, including abstracts published in conference proceedings or unpublished papers. Additionally, research papers that did not address the correlation between social support and physical activities were also omitted.

### Study Selection Process

Firstly, articles were searched in reputable databases, and all references were collected in EndNote2020. Duplicate articles were then eliminated. Therefore, the authors carefully reviewed the literature and extensively analysed the titles, abstracts, and full-text articles. Articles that did not meet the inclusion criteria were excluded, while those that met the eligibility criteria were included. Figure 1 depicts the procedures for inclusion according to the PRISMA statement.

### Quality Assessment

The quality assessment of systematic review studies is determined by several factors, including the study population,

sample size, research objectives and questions, eligibility criteria, and the relationship between social support and physical activities. The quality assessment tool identified approximately thirty articles that demonstrated a correlation between social support and physical activities. However,

seven papers did not address this relationship, focusing instead on the significance of physical exercise. Additionally, four papers provided insights into the importance of the relationship in the literature review.

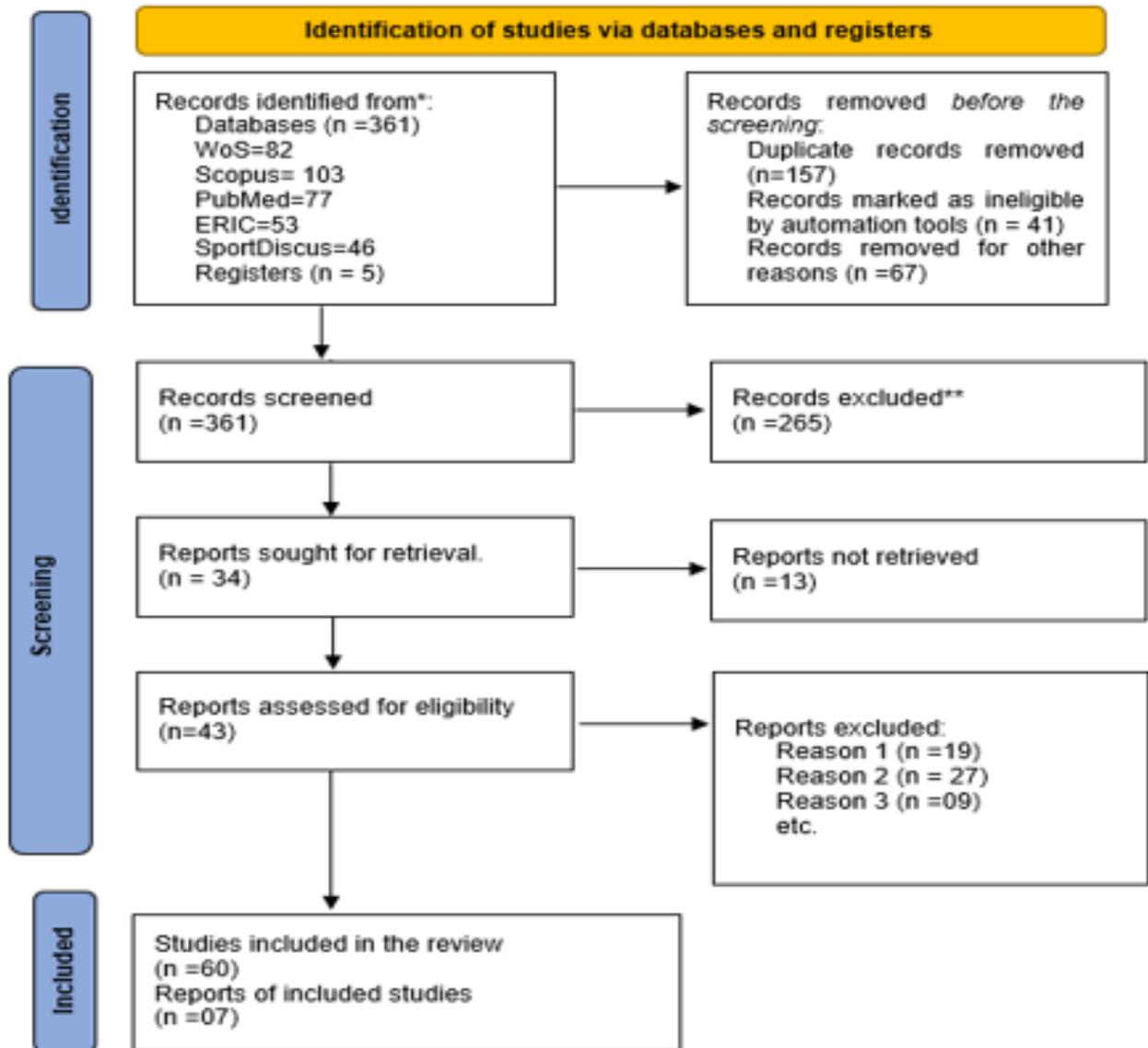


Figure 1: Prisma Flow Diagram.

### Data Extraction

The research papers were analysed to extract standardised information, including references (author names and publication year), study objectives, country of study, and variables (applied theory and factors). The methodology includes key details about the study design, sample size, sampling technique, data distribution, and presents the study findings.

### Literature Review

A prior study conducted a systematic literature review to examine the relationship between physical activities and

social support among young girls. The author conducted a systematic review of approximately 6000 published documents and determined that there is a notable and statistically significant positive correlation between social support and teacher support. The presence of family and friends has a positive impact on the physical activities and behaviours of adolescent girls. Beets et al. (2010) assert that parents have a significant impact on youth and can enhance their self-belief in physical activity (PA). Table 1 displays the correlation between various forms of social support and adherence to physical exercise. Meanwhile, Figure 1 illustrates the direct association between social support and physical activity.

**Table 1***Systematic Review*

Reference	Country	Study design	Sample size	Gender/Age	Sources of SS	Variables and Theories	Findings/Relation
Mendonça et al. (2015)	Brazil	Quantitative	2,859	14-19 Male & Female	Parents & Friends	Social Cognitive Theory	Social support from parents and friends is positively associated with PE/PA & SS, and the association varies by age and gender.
Lisboa et al. (2021)	Brazil	OXS & SEM	2710	14-18	Family & Friends	N/R	Social support should be considered in intervention programs to promote physical activity
Springer et al. (2006)	USA	Quantitative	718	10-14 6 <sup>th</sup> Grade school girls	Parents and peer support	N/R	The source and type of social support for physical activity and sedentary behaviours may differ.
Robbins et al. (2018)	USA	Quantitative	1519	10-14 Girls only Grade 5 <sup>th</sup> to 8 <sup>th</sup>	Parents/Family & Friends	N/R	Mothers were found to be more supportive; however, having more than a single source significantly increases PA among girls.
Prado et al. (2014)	Brazil	Quantitative	1469	Adolescents from School Age N/R	Family Friend with frequent company	N/R	Friends with frequent company strongly support physical activities besides social support from the family- Boys are motivated by the frequent company of friends; however, girls are influenced by family.
Treiber et al. (1991)	USA	Quantitative	230	89 Male 141 Female 30-40 Years	Parents Friends Peer	N/R	The study found SS is related to men being highly dependent on friends, whereas female SS is associated with family support
Stapleton et al. (2015)	USA	Mix method	210	19-48 Years	Parents Support	Transtheoretical Model	Significant differences between received and ideal social support relative to the exercise stage for each individual; however, Companionship and emotional support
Tian and Shi (2022)	China	Quantitative	459	19-23 Years old	Social Support Teacher support	Ecosystem theory	Social support, subjective exercise experience, and commitment may improve exercise adherence among Chinese students
Zhang et al. (2022)	Mongolia, China	Quantitative	1440	N/R	Peer support Family support School Support	theory of social support and self-efficacy	School support has the highest effect on the PA of college students, followed by Peer and family support.
(Hailey et al., 2023)	UK	Quantitative	16,980	18-54 Years old	Family and friends	Theory of Planned Behavior	The study found that high SS was associated with a 64% increase in PA, and Medium SS was associated with a 32% increase in PA.

Laiou et al. (2020)	Italy, Spain and Greece,	XS	2064	40 Years	Family & Friends	N/R	The relationship between SS and PA in adults is inconclusive, and no statistically significant associations were found between participant PA and the SS aspects
Zou et al. (2023)	China	Quantitative	1081	09-14 Years	Peer Support	chain-mediation mechanism	Peer support could promote adolescents' exercise adherence. Self-efficacy and self-regulation are mediating factors of peer support on exercise adherence in teenagers
Moreno-Murcia et al. (2017)	Spain	Quantitative	355	18-82 Year women only	perceived autonomy support. Family support	N/R	Perceived autonomy support was positively related to psychological needs, intrinsic motivation, health goals, regular physical activity, and life satisfaction in women
Eynon et al. (2016)	N/R	Quantitative	124	18-30 Years	Peer Support	Social cognitive theory	Study shows peer support significantly enhance
Craven et al. (2018)	Puerto Rican/Mexican	Quantitative	203	20-40 Years men only	Family Friends	N/R	SS for exercise from family members predicted a higher rank than friends
Al-Shawabka (2021)	Jordan	Quantitative	452	40-45Years male Female	Family	N/R	SS encourage them to participate in PA
Middelweerd et al. (2017)	Australia	XS	1197	18-30 Women only	Family	N/R	SS is linked with the level of PA and interpersonal factors such as PA enjoyment and self-efficacy
Cavallo et al. (2014)	USA	Quantitative	134	Undergraduate SFemale students		theory of planned behaviour (TPB)	There is a significant relationship between a change in companionship support and PA and a direct association between a change in esteem support and PA.

**Note:** XS= Observational Cross-sectional Study, SEM= Structural Equation Model; N/R=not Reported; SLR: Systematic Literature Review; PA=Physical activities



Figure 2: Social Support Direct Relationship with PA.

## Discussion

A study conducted by Laird et al. (2016) examined the impact of social support on the activity levels of adolescent girls ranging from 10 to 19 years old. The study discovered a noteworthy correlation between various forms of social support (excluding teachers) and levels of physical activity. There were significant relationships found between emotional, instrumental, and modelling support. Although social support did not emerge as a significant factor in predicting activity levels among adolescent girls as a whole, there were indications that parents and

friends might play a role in enhancing their physical activity levels (Laird et al., 2016). In a study conducted by Snowden et al. (2015), a critical review was conducted to assess the effects of various interventions on the well-being of older individuals. The study analysed approximately 148 research articles and discovered various interventions in different categories. These included exercise/activity interventions (83 interventions), social support interventions (25 interventions), and skills training interventions (40 interventions). The study found that skills training interventions were successful in reducing anxiety levels and improving quality of life and self-efficacy. In a study conducted by Middelweerd et al. (2017), it was found that factors such as family support and interpersonal relationships have a significant impact on the enjoyment and self-efficacy of physical activity among young people. Hu et al. (2021) found that various factors impact the involvement of children and adolescents in physical activities (PA). The study identified various factors that influence

participation in physical activity (PA). These factors can be categorised into characteristics (such as gender, age, ethnicity, and self-perception), social relationships (including support from friends, parents, and teachers), access to facilities (level), community aspects (such as safe neighbourhoods), and public policies. Receiving support from sources was found to be associated with higher levels of physical activity engagement. The review highlights the importance of investigating strategies and policies to enhance facility accessibility and neighbourhood safety, with the aim of promoting physical activity among children and adolescents. This comprehensive approach aims to offer insights and support the development of policies that promote physical activity (PA) participation among young individuals.

[Biddle et al. \(2011\)](#) conducted a literature review on the relationship between factors associated with physical activity (PA) in children and adolescents, focusing on publications from 2000 to 2010. The study emphasises the influence of age, gender, positive motivation, and body image barriers on physical activity. Previous physical activity, sports participation, smoking habits, and sedentary behaviour are correlated with physical activities. [Biddle et al. \(2011\)](#) found that social support is a key motivating factor for individuals to engage in physical activity in sports and exercise.

[Eime et al. \(2013\)](#) investigated the influence of sports participation on the psychological well-being of children and adolescents. The study highlighted the significant role of self-esteem and social support in reducing symptoms of depression and promoting daily physical exercise. The study identified a causal relationship between social support skills, engagement in real-time strategy games, and psychological well-being. The study conducted by [Lin et al. \(2024\)](#) fails to acknowledge the significance of community and social support in promoting sports engagement among children and adolescents. This engagement not only addresses concerns such as obesity but also improves their mental and social well-being.

[Küçükbiş et al. \(2022\)](#) investigated the perceptions of middle and high school students regarding the support they receive from their parents and peers during activities, and its impact on their happiness. The study reveals that middle school students who receive support from both parents and peers demonstrate higher academic performance compared to high school students who receive support solely from peers. The study found a positive correlation between increased support from peers and parents and students' happiness levels. [Rackow et al. \(2015\)](#) found that social support has an indirect impact on self-belief and behaviour. Individuals who received

emotional and social support demonstrated improved self-belief, self-regulation, and increased participation. In contrast, there is no evidence of any direct or indirect impact of instrumental social support on physical activity. [Ren et al. \(2020\)](#) explored the relationship between social support, self-belief, and physical activity (PA) in teenagers. They also examined the mediating role of self-belief in the association between social support and PA. A study was conducted on adolescents aged 12-13, which found that social support enhances exercise confidence. The study found that social support and self-efficacy in exercise had an impact on physical activity levels in adolescents. [Parrish et al. \(2020\)](#) conducted a study to examine and compare physical activity guidelines for adolescents aged 5-18 in approximately 25 countries, including those in the European Union. The study suggests that countries prioritising social support for children have higher rates of involvement in physical activity compared to those that do not prioritise support.

[Zhou and Wang \(2019\)](#) identified eleven factors that consistently correlate with levels of physical activity. These factors include gender, ethnicity, single-gender classes (boys), specific physical education activities (such as team sports), outdoor lesson settings, belief in success, perceived value of tasks, and enjoyment. All of these factors are positively associated with activity levels. Conversely, physical education activities and lesson content that involved movement were consistently associated with reduced levels of physical activity in girls' classes. The results highlight the significance of interventions aimed at addressing these factors to promote active engagement in physical education classes. [Levinger et al. \(2021\)](#) investigated the impact of community social support and 12 weeks of supervised physical exercise and activity on motivation in elderly seniors. Positive health benefits have been observed at 12 weeks. Community support can have a significant impact on encouraging adults and seniors to engage in physical activity in neighbouring societies.

In their study, [Strong et al. \(2005\)](#) examined the effects of physical activity on the health and behaviour of individuals with social support. They found that studies consistently recommended a daily moderate level of physical activity for children, teenagers, and adults, with a recommended duration of approximately 60 minutes. This is primarily possible with the support of parents, family, peers, and friends.

[Hohepa et al. \(2007\)](#) examined the importance of perceived encouragement from different sources, including parents, siblings/cousins, friends, and schools. The responsibility for children's physical activities primarily lies with the school, as children and adolescents

spend most of their time there. However, parents, family, and friends also play a crucial role in motivating adolescents to participate in physical activities. [Shen et al. \(2018\)](#) and [Liu et al. \(2023\)](#) have examined children's beliefs regarding parental social support, perceived competence, and enjoyment in school physical activity (PA). The study found that beliefs about parental social support had a significant impact on children's enjoyment of physical activity in school, especially among girls who perceived themselves as having low competence. [Hohepa et al. \(2007\)](#) examined the importance of perceived encouragement from different sources, including parents, siblings/cousins, friends, and schools. The responsibility

for children's physical activities primarily lies with the school, as children and adolescents spend most of their time there. However, parents, family, and friends also share the responsibility of motivating adolescents to participate in physical activities. [Shen et al. \(2018\)](#) and [Liu et al. \(2023\)](#) have examined children's beliefs regarding parental social support, perceived competence, and enjoyment in school physical activity (PA). The study found that beliefs about parental social support had a significant impact on children's enjoyment of physical activity in school, especially among girls who perceived themselves as having low competence.

**Table 2**

*Summary of the Literature/ Content Analysis*

<b>Dimension of Social Support</b>	<b>Key Findings</b>
Emotional Support	Emotional support from family and friends enhances adolescents' overall satisfaction and engages them in physical activities.
Instrumental Support	Instrumental support provided by teachers, including guidance, encouragement, and resource provision, empowers students to overcome challenges and achieve their fitness goals.
Informational Support	Informational support, characterized by precise instructions, feedback, and explanations from parents and teachers, enhances students' understanding and competence in physical education.
Appraisal Support	Appraisal support involving recognition, encouragement, and constructive feedback from parents and family.
Fairness and Respect	Fairness, respect, and personalized attention from friends and peers create a supportive sports and physical activity environment where children and adults feel trusted and respected. This fosters trust, mutual respect, and a conducive atmosphere for learning and growth.
Active Participation	When adolescents feel supported and valued by their parents, peers, friends, and schoolteachers, they are more likely to contribute actively to class discussions, collaborate with their peers, and take ownership of their learning experiences.

**Conclusion and Recommendations**

This study investigates the correlation between social support and physical activity in adolescents. This study examined more than 80 research articles without any time restrictions or geographical limitations. The study examined the relationship between social support and physical activities among adolescents. However, it is influenced by factors such as gender, age, ethnicity, belief in success, perceived value of tasks, and enjoyment. The review found significant variation in the types of social support examined, but no studies specifically investigated the effects of appraisal or informational support on physical activity engagement.

The study in this review examined positive and potentially harmful social support experiences. It found a minor effect but recommended further research to investigate the impact of negative social support experiences on physical

activity and ways to mitigate their effects. This study examines the role of social support in mediating the relationship between self-efficacy, self-regulation, and participation in physical activity. The findings indicate that men's behaviour is significantly influenced by social support, while women are primarily influenced by family and peer support. Social support enhances participants' beliefs and capabilities, facilitating their involvement in physical activity. Hence, it is recommended that future studies focus on directing participant self-belief and efficacy. The study found a modest positive correlation between social support from friends and family support. The literature studies found insufficient and inconsistent evidence to examine the relationship between social support and adolescents' physical activity, whether it comes from friends, peers, or other sources. Several studies have reported variations in the association between social support and physical activity among adolescents.

Technically, it is associated with gender, age, and factors related to self-belief. An empirical study found that adolescents and children may be less active and resistant to participating in physical exercise when they feel pressured to do so. Hence, educating adolescents and raising awareness about health can help promote their engagement in physical activity.

## Implications and Limitations

Existing literature emphasises the significance of customised social support strategies in promoting physical

activity among adolescents. Policymakers and educators should take into account gender-specific and age-appropriate interventions that enhance self-efficacy and enjoyment of physical activities. The limitations of this study include the variability in the analysed social support types and the inconsistent findings observed across different demographics. Future research should prioritise examining specific types of social support, such as appraisal and informational support. Additionally, longitudinal studies should be conducted to gain a better understanding of the dynamics of these relationships over time.

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