

Supplementary material

Table S1. Inductive facilitators and barriers of physical activity

Author (year) [Study ref.]	Facilitators	Barriers
Martins (2020) [27]	<ol style="list-style-type: none"> 1. Diverse and positive PE/PA experiences since early years with friends involved 2. Establishment of friendships in early years and continued relationships influenced PA later on 3. Friends support for PA (active, encouragement) 4. Meaningful interactions with friends in diverse PA contexts (having fun together, motivation) 5. Family support for PA 6. Ability to challenge gender and performance stereotypes with support from close friends (girls) 7. Time management skills 	<ol style="list-style-type: none"> 1. Negative experiences in PA since early years 2. Lack of time 3. Competing leisure sedentary activities 4. Limited PA attitude 5. Sociocultural norms limiting girls' PA 6. Lack of support from friends for PA 7. Peer influence on leisure sedentary activities 8. Peer victimization episodes in PE and PA 9. Lack of motivation for PA 10. Lack of support from family (inactive) 11. Limitations to access sport clubs (low SES)
Casey (2016) [29]	<ol style="list-style-type: none"> 1. Peer and friends support 2. Perception of competence 3. Self-efficacy 4. Competition (active girls) 5. Sport/PE focus on performance (active girls) 6. Co-educational PE (active girls) 7. High SES 8. Family support 9. Being active was linked to ideals of femininity 	<ol style="list-style-type: none"> 1. Reduced perception of competence 2. Reduced perception of body image 3. Fears of being watched by peers (low/medium active girls) 4. Narrowed conceptions of 'ideal' bodies 5. Lack of peer, friends and family support 6. Reduced self-efficacy 7. Lack of appropriate PA opportunities (high skills required) 8. Co-educational PE (low-medium active girls) 9. Sport and PE focus on performance (low /medium active girls) 10. Prevailing gendered and performative discourses limit girls PA involvement
Garcia (2016) [30]	<ol style="list-style-type: none"> 1. Type of friendship groups (from sport teams) 2. Friends and family support 3. Competition/competing with friends (boys) 4. Close friend and socializing in PA (girls) 5. PA benefits: health/competition (boys), psychosocial (girls) 	<ol style="list-style-type: none"> 1. Type of friendship groups (from school) 2. Sedentary activities with friends 3. Lack of PA support from friends and family 4. Family pressure/demanding girls to be active

Hill (2015) [31]	<ol style="list-style-type: none"> 1. Sport skills 2. Motivation 3. Self-confidence 4. Carefree attitude and challenge gender norms 5. Perception of body image 6. Perception of competence 7. Choice in PE: meaningful/new activities, friends to play with 8. Safe and supportive PE environment 	<ol style="list-style-type: none"> 1. Teasing and lack of support from boys in PE 2. Prevailing discourses on body (fat), femininity and performance (competition, types of activities) 3. PE as a non-caring and non-supportive space 4. Co-educational PE/PA contexts 5. Boring and repetitive activities in PE 6. Lack of support from friends 7. Competing leisure time activities 8. Cultural and religious norms influence PA
Laird (2018) [32]	<ol style="list-style-type: none"> 1. Provision of social support (from family, friends, PE teacher, coaches) lead to improvements on: (1.1.) performance, (1.2.) self-efficacy, (1.3) fun, (1.4) motivation and (1.5) enabling PA 2. PA modelling 3. Connectedness 4. PE positive and environment (teacher, friends) 	<ol style="list-style-type: none"> 1. Low self-efficacy for PA 2. Feeling self-conscious about being active 3. Low social support (friends, family, teachers) 4. Laziness and lack of motivation 6. Connectedness negative impact (reduced time spent with friends outside of PA)
Van Hecke (2016) [33]	<ol style="list-style-type: none"> 1. Accessibility by foot/bicycle/public transport 2. Located close to home/school 3. Presence of active friends and family (siblings) 4. Cleanliness and upkeep of space/facilities 5. Availability of sport fields / large open spaces 6. Safety and aesthetics of spaces / facilities 	<ol style="list-style-type: none"> 1. Presence of undesirable users 2. The behaviors of others 3. Unsafety and lack of cleanliness 4. Lack of friends support and presence 6. Parents restriction
Gavin (2016) [34]	<ol style="list-style-type: none"> 1. PA attitude (passion for the activity) 2. PA benefits (psychosocial, health) 3. Fun 4. Motivation: intrinsic, extrinsic and mastery; self-efficacy for PA 5. Competition and prolonged engagement in PA 6. Friends support to PA and social interaction 7. Supportive teachers/coaches; Continuous family support for PA 8. Access to PA facilities/organized programs 9. Continuous family support for PA 	<ol style="list-style-type: none"> 1. Lack of fun 2. Lack of motivation 2. Fewer opportunities of PA with age 3. Injuries 4. Lack of time and competing leisure demands 5. Lack of PA facilities/programs/opportunities 6. Coaches: overly competitive 7. Lack of family support to PA

Beltrán-Carrillo (2018) [35]	<ol style="list-style-type: none"> 1. Improve body shape through PA 2. Improve health (indirectly) 3. Competition (active boys and girls) 4. Fun and positive PA attitude 5. Good physical fitness and sport skills 6. Perception of competence 	<ol style="list-style-type: none"> 1. Fear of masculinized female bodies 2. Non-hegemonic body shape (not "fit") and peer teasing 3. Ideals of femininity limit types of PA practiced 4. Low perception of competence and sport skills 5. PE teachers favor students with fit bodies 6. Performative discourses (competition, victory)
Martins (2018) [36]	<ol style="list-style-type: none"> 1. Diverse, positive PE/PA experiences since early years 2. Positive PE/PA attitude and fun 3. Motivation (mastery orientation) 4. Availability PA opportunities in the community 5. Perception of competence 6. Activities in PE: diversified, unusual, challenging; competitive (boys), inclusive and mixed gender (active girls), multi-activities, choice 7. PE teacher pedagogical capacity 8. Friends support in PA and PE 9. PE and school role in promoting PA 10. Family support for PA (continuous) 11. Good sport skills 	<ol style="list-style-type: none"> 1. Limited out-of-school formal PA activities 2. Limited access to PE in early years (low SES) 3. Early negative PE and PA experiences 3. Lack of motivation, fun and laziness 4. Limited physical fitness and sports skills 6. Reduced perception of competence 7. Body image and self-presentational concerns (girls) 8. Limited PE/PA attitude 9. Competition and high-intensity activities in PE (inactive boys) 10. PE teacher lack of support 11. Limited PE and school role in promoting PA 12. Lack of support from friends and peer teasing 14. Lack of support from family for PA
Owen (2019) [37]	<ol style="list-style-type: none"> 1. Enjoyment of PA (fun, benefits of PA) 2. Doing PA while having fun with friends 3. Noncompetitive activities (inactive girls) 4. 'Fun' sessions to encourage more girls to practice (inactive girls) 5. Competition (active girls) 6. Supportive teachers and autonomy in PE/PA 7. Grouping with sporty friends in PE/PA (active girls) and compete with friends (active) 8. Motivation: focus on personal improvement 9. After-school sport clubs: increase participation and retention (active girls) 10. Perception of competence 	<ol style="list-style-type: none"> 1. Limited knowledge/understanding of PA 2. Lack of time 3. Lack of motivation 4. Lack of PA options 5. Not sporty or low sport skills 6. Pressure to win and to compete (inactive girls) 7. After school club culture (for athletes only) 8. Lack of teachers support for low skilled girls 9. Lack of fun (low and middle active girls) 10. Reduced perception of competence

Knowles (2014) [38]	<ol style="list-style-type: none"> 1. Perception of competence 2. Fun 3. PE and other organized activities (primary school phase) 4. Support from family 5. Support from friends 6. Motivation 7. Active lifestyle self-identity 8. PA attitude 9. PE attitude 10. No self-presentational concerns 	<ol style="list-style-type: none"> 1. Secondary school phase transition 2. PE promotes “active identities”, contradicting the “socially acceptable feminine identity” 3. Unfavorable perception of body image 4. Self-presentational concerns 5. Reduced perceived competence 6. Preference for other leisure sedentary activities 7. Limited PA attitude and lack of motivation 8. Acceptance for specific sport decrease with age 9. Lack of friends support 10. Physical pain associated with specific PA 11. Dominant cultural values on PA, gender and performance shape psychological processes
Otero (2020) [39]	<ol style="list-style-type: none"> 1. PA benefits (health, body image, weight management, socialization) 2. Family support to PA (same sex parent) 3. Motivation 4. Fun 5. Availability/access of PA facilities and opportunities in the community 6. Activities: non-structured, open air 7. PE classes as a mean to promote PA 8. Co-participation in PA with friends 	<ol style="list-style-type: none"> 1. Lack of time 2. School study and homework commitments 3. Lack of family support 4. Sport spaces at the school 5. Lack of sport spaces at the neighborhood 6. Cost of existing PA opportunities 7. Unsafe to do PA in the neighborhood 8. Lack of access to school sport facilities
Palmer-Keenan (2019) [40]	<ol style="list-style-type: none"> 1. Fun activities: technology-based fitness, free and accessible online workouts, doable at home 2. Acceptable sports: low intensity 3. Alternative activities offered in PE 4. Inclusive and easy challenging activities 5. Comfort (activities, context) and choice 6. Support from family and friends 7. "Promoter" characteristics: cool, relatable, good looking, celebrity, youtuber, athlete 8. Perception of competence and self-efficacy 	<ol style="list-style-type: none"> 1. Lack of accessible low-cost PA opportunities 2. Preference for leisure sedentary activities 3. Not fun: sports and formal exercise, PE, jogging 4. Do not promote PA by emphasizing the health benefits of PA 5. Physical discomfort: sweat, tired, body hurts 6. Being active outdoors during adverse weather conditions 7. No messages from directors/parents/authority 8. Lack of alternative activities and choice in PE

Baheiraei (2016) [41]

1. Studying-based schools' environment and school directors not giving importance to PE and PA
2. PE: inactive classes, negative experiences, lack of teachers and of equipment
3. Lack of friends and family support
4. Lack of weight management and body image
5. Time constraints
6. Lack of available, accessible and safe spaces
7. Social and cultural norms limit PA (girls)
8. Low self-esteem and mental exhaustion
9. Physical weakness and poor fitness

Harris (2018) [42]

1. PA benefits physical health
2. PA benefits appearance, weight, shape, size
3. Fun
4. Schools and PE teachers are promoting healthy and active lifestyles
5. Autonomy and choice in PE

1. Limited understanding of PA-health benefits
2. Conceptual confusion of PA, fitness and health
3. Do not know recommendations of PA for health
4. Laziness, tiredness and illness
5. Lack of motivation
6. Bad weather and no easy access to PA programs
7. School and PE can improve their role in promoting active and healthy lifestyles

Kinsman (2015) [43]

1. Body image ideals (pressure to be thin)
2. Available facilities and competitions for boys
3. Family support
4. Benefits of PA for health
5. Gender (boys)
6. Age (younger adolescents)
7. Fun and motivation
8. PA to make friends and socialize

1. Culturally embedded body image ideals
2. Criticism / teasing from friends and peers
3. Lack of facilities and competitions for girls
4. Lack of family support
5. Unsafe environment
6. Gender (girls), age (older) and poverty
7. Competing leisure sedentary activities
8. Nationality and lack of legal documentation
9. Lack of understanding of PA benefits
10. Extrinsic motivation
11. Culturally embedded disincentives for girls' PA

Rajaraman (2015) [44]	<ol style="list-style-type: none"> 1. PA benefits: health, academic performance, physical fitness, socialization, ideal body shape 2. Social support from friends, family and teachers 3. Social support from significant others (health providers) 4. Social media messages and role modeling 5. Accessibility of playgrounds 6. Fun 	<ol style="list-style-type: none"> 1. Limited understanding of PA-health benefits 2. Perceived PA disadvantages 3. Lack of friends, family, teachers and significant others support (girls) 4. Weather and pollution (urban) 5. Academic pressure and reduced PA (in school) 6. Health problems / overweight and obesity 7. Fatigue, body pain, injuries 8. Low perception of body image (girls) 9. Lack of motivation (girls) 10. Reduced sport opportunities for girls; limited access to safe space/facilities (urban) 11. Societal norms related to girls in sport 12. Lack of time
Stride (2014) [45]	<ol style="list-style-type: none"> 1. Perception of competence 2. Fun 3. Play and learn with your friends 4. Activities: indoor, new to everyone 5. Attitude towards PE 6. Perception of body image 7. Single sex-PE classes 8. Being active agents resisting dominant discourses 9. Multiple identities and disruption of traditional gender codes 	<ol style="list-style-type: none"> 1. Lack of perception of competence 2. Lack of friends and family support 3. PE activities: outside, competition, repetitive, irrelevant, gendered curriculum 4. Lack of available/accessible sport clubs/spaces 5. Study pressure and family-imposed duties 6. Exposure concerns and embarrassment in PE 7. Cultural/religious norms related to girls in sport 8. Negative PE and PA attitude 9. PE teacher opinions of girl's abilities/pedagogies 10. PE limited role in promoting PA outside school
Stride (2016) [46]	<ol style="list-style-type: none"> 1. Family support in PA 2. Friends support in PE 3. Available/accessible/safe spaces for PA/sport 4. Single sex-PA contexts 5. Competition/performance in PE (some girls) 6. Perception of competence 	<ol style="list-style-type: none"> 1. Negative PE and PA attitude 2. Activities in PE: irrelevant, repetitive, obligatory 3. Peers teasing in PE 4. Low perception of competence 5. Exposure concerns and embarrassment in PE 6. Lack of family support 7. Cultural/religious norms related to girls in PA 8. Formal, organized and Eurocentric spaces
Stride (2017) [47]	<ol style="list-style-type: none"> 1. Family support in PA 2. Girls has active agents negotiating their physicality and different cultural challenges 	<ol style="list-style-type: none"> 1. Family lack of support for PA (specific activities, gender and religious related obstacles). 2. Cultural/religious norms related to girls in PA 3. Negative PE and PA attitude

Stride (2018) [48]	<ol style="list-style-type: none"> 1. Available, accessible, safe PA spaces near home 2. PA at home (private/safe space, degree control) 3. Fun 4. PA benefits: health, stress relief 5. Body weight management 6. Girls as active agents negotiate their physicality 7. Family and friends' social support 	<ol style="list-style-type: none"> 1. Lack of parents support 2. Household responsibilities 3. Belief systems/environments within different PA/sport contexts that challenge their right to embody their religion and be physically active 4. School and PE focus on the "physical performance and sport agenda"
Devís-Devís (2015) [49]	<ol style="list-style-type: none"> 1. High perception of competence 2. Family support (in childhood and adolescence) 3. Friends support to PA 4. PA benefits: relieve stress 5. Applying knowledge acquired in PE to out-of-school PA (active) 6. PE teachers support for starting to do PA/sport 7. Available and significant sport opportunities 8. Physical fitness and sport skills (active) 	<ol style="list-style-type: none"> 1. Low perception of competence 2. Negative attitude towards PA 3. Lack of time 4. Peer teasing (low skilled, girls, obese) 5. Coaches/PE teachers' behaviors and negative experiences 6. "Sportivization" process of PE and its contents 7. Learning came must from sport not PE (active), learning in PE not significant 8. Lack of available/significant sport opportunities
Hannus (2018) [50]	<ol style="list-style-type: none"> 1. Availability of PA facilities, equipment and organized PA opportunities 2. Sufficiency of time 3. Be with friends 	<ol style="list-style-type: none"> 1. Lack of PA facilities, equipment, organized PA opportunities 2. Behavioral and normative beliefs 3. Insufficiency of time and time regulations
Hidding (2018) [51]	<ol style="list-style-type: none"> 1. Physical characteristics: clean, well-maintained, proximity, suitable 2. Social characteristics: Ambience (fun, cozy), being allowed to be active (no strict rules), presence of others (positive) 3. Economic characteristics: Affordable. 4. Motivational characteristics: Challenging, motivating, adventurous environment 	<ol style="list-style-type: none"> 1. Presence of others (negative) 2. The need to bring additional equipment to a sports facility

James (2018) [52]	<ol style="list-style-type: none"> 1. Reduced cost of activities 2. Quality of facilities (safe, clean, lights) 3. Improve local access to PA opportunities 4. Activities: specific to adolescents, informal, diversified, non-conventional, non-competitive; that adolescents enjoy 5. Give adolescents a choice/voice 6. Provide activities that girls enjoy and fun 8. Opportunity to be active with friends, enjoy and socialize (girls) 9. Inclusion 10. Motivation (intrinsic) 	<ol style="list-style-type: none"> 1. Being red and sweaty in front of boys (girls) 2. Lack of family support 3. High cost of activities 4. Low quality of facilities and sports equipment; Lack of local facilities need to travel to venues 6. Activity provision that does not include/encourages/motivates adolescents 7. Age restrictions to participate in activities 8. Not giving adolescents a choice/voice 9. PE: activities that are repetitive, traditional, structured, for adults; negative experiences 10. Non-autonomous motivation
Fernandez-Prieto (2019) [53]	<ol style="list-style-type: none"> 1. Available, accessible, safe and aesthetic spaces 2. Motivation 3. Satisfaction with the performance of PA 4. Friends co-participation in PA and fun 6. Support from family 7. Support from school 8. Perception of body image (girls) 	<ol style="list-style-type: none"> 1. Lack of motivation and fun 2. Fatigue and laziness 3. Lack of support from friends and family 4. PE: compulsory; boring and repetitive activities 5. Lack of time 6. Low attitude towards PA 7. Lack of available/accessible /safe spaces (girls) 8. Inappropriate use of the woman figure in sport by the social media (girls) 9. Social and cultural norms limit PA (girls) 10. Negative perception of body image (girls)
Fernandez-Prieto (2019) [54]	<ol style="list-style-type: none"> 1. Motivation 2. Social support from friends and family 3. Physical fitness 4. Activities: team sports, competition, new, chosen by adolescents 5. Available spaces for PA in the neighborhood 6. Neighborhood multiculturalism and new forms of PA 7. Perception of body image (girls) 	<ol style="list-style-type: none"> 1. Lack of time 2. Competing leisure sedentary activities 3. Lack of motivation 4. Low PA attitude 5. Low perception of body image (girls) 6. PE classes (limited time) 7. Lack of support from family (girls) and friends 8. Economic cost to access sport facilities 9. Activities: imposed, repetitive, no autonomy 10. Social media do not value girl's PA 11. Cultural norms limit PA (girls)
Borhani (2017) [55]	<ol style="list-style-type: none"> 1. Perceived benefits of PA (health, improvement appearance, fitness, socialization, sleep) 2. Self-efficacy and self-regulation 3. Positive feelings related to PA (motivation, fun) 4. Support from family, friends, PE teachers, significant others (popular athletes) 5. Supportive school PA and PE environment 	<ol style="list-style-type: none"> 1. PA induced fatigue and injuries 2. Low self-efficacy and motivation for PA 3. Lack of sport skills to exercise 4. Lack of planning ability for PA (knowledge) 5. Lack of time 6. Competing leisure sedentary activities 7. Study workload and pressure

6. Available/safe spaces and sport equipment
7. Ability to choose any favorite sport
8. Ability to use information to learn new PA
9. Time management skills
10. Cultural attitudes towards girls in PA

8. Lack of available/accessible/safe spaces for PA
9. Negative feelings related to PA
10. School: directors do not give importance to PE, inadequate facilities for PA

Abdelghaffar (2019) [56]

1. Fun
2. Competition (boys)
3. Benefits of PA: health
4. Perception of body image
5. Weight control
6. PA awareness and positive attitude
7. Support from family
8. Support from friends
9. Significant others: role models by national sports celebrities
10. PE: contributes to improve overall PA levels

1. Physical disability, poor fitness, low sport skills
2. Laziness (no motivation)
3. PA lack of awareness and negative attitude
4. Time constraints
5. Lack of support from family and friends
6. Fear of being intimidated (girls) and fear of injuries
7. Shame to do PA outside (girls)
8. Cultural norms limit PA (girls)
9. PE: lack of time, infrastructures, equipment
10. School: policy relate to PE and sport spaces
11. Lack of available/accessible/safe spaces (girls)

Payán (2019) [57]

1. Availability of PA opportunities in school and community
2. Social support from friends
3. Social support from family

1. Lack of motivation and laziness
 2. Lack of time
 3. Unsafety
 4. Unwanted attention and threats (girls)
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