

Evidence Table

	Sayed Ahmed, 2018 ²	Hadj-Moussa, 2022 ⁸	Toovey, 2024 ⁹
Population	<p>Children ages 6-14 and/or their parent(s)</p> <p>Sample size: 19 total participants</p> <p>Gender of children: 6 females, 5 males</p> <p>Level of limb difference: partial hand (2), transradial (3), elbow disarticulation (1), transtibial (4), transfemoral (1)</p>	<p>Children ages 8-20</p> <p>Sample size: 8 (4 accompanied by mother)</p> <p>Gender of children: 4 males, 4 females</p> <p>Level of limb difference: bilateral TT (2), unilateral TT (4), unilateral ankle disarticulation (1), bilateral KD (1)</p>	<p>Children between ages 9-16 and their parent</p> <p>Sample size: 9 pairs</p> <p>Gender of children: 3 female, 5 male, 1 gender queer</p> <p>Gender of parent: 9 females</p> <p>Level of limb difference: Bilateral upper limb (1), unilateral upper limb (2), bilateral lower limb (1), unilateral lower limb (5)</p>
Inclusion/Exclusion Criteria	<p>Inclusion:</p> <ul style="list-style-type: none"> - Age 6-17 - Any form of limb absence - English speaking <p>Exclusion:</p> <ul style="list-style-type: none"> - None 	<p>Inclusion:</p> <ul style="list-style-type: none"> - Age 8-20 - Any level/cause of lower limb amputation - Current running specific prosthesis (RSP) user - Able to communicate in English <p>Exclusion:</p> <ul style="list-style-type: none"> - None 	<p>Inclusion:</p> <ul style="list-style-type: none"> - 8-17 years old - Any limb difference - Informed parental consent - Basic English proficiency of both parent and child <p>Exclusion:</p> <ul style="list-style-type: none"> - Parental or child intellectual disability impacting interview participation
Sampling Strategy	Convenience sampling through an outpatient clinic	Convenience sampling in a tertiary care pediatric rehabilitation hospital	Convenience sampling through the START Foundation, Royal Children's Hospital's Prosthetics and Orthotics Unit and social media
Study Design	Descriptive qualitative	Descriptive qualitative	Descriptive qualitative
Domain of Interest	Child and parental perceived facilitators and barriers to sports participation	Child and parental perception of running specific prostheses (RSP)	Participatory experience of young people with limb differences in sports/recreation

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Methodology	<ul style="list-style-type: none"> - Semi structured interviews conducted by two researchers (in person or via phone) - Option of just parent (3), just child (1), or child and parent (7) - Interviews continued until data saturation was reached - A total of 11 interviews were completed with a total of 19 participants 	<ul style="list-style-type: none"> - Online study-specific activity survey completed by child before interview - Semi-structured interviews conducted over zoom with child as main interviewee and parent present as proxy - Transcription of interviews and coding to identify themes 	<ul style="list-style-type: none"> - Semi structured interviews conducted via video conference - Parents and children interviewed separately - Audio recording of interviews and coding - Two rounds of member checking completed by 8 of 9 pairs
Data Analysis	<ul style="list-style-type: none"> - Interviews were recorded and transcribed by research team - Four individual researchers analyzed transcriptions using a thematic analysis approach and identified initial codebook independently - Codes were finalized through discussion with a total of seven research team members - Codebook used by researchers to identify themes 	<ul style="list-style-type: none"> - Initial code book generated by two researchers independently coding three interviews using a data-driven content analysis approach - Codes reviewed by five researchers, then used to code remainder of interviews - Data analysis completed using NVivo 12.0 	<ul style="list-style-type: none"> - Independent labelling of meaningful segments by two researchers to develop initial codes - Discussion and cross checking of themes and subthemes - Revision of themes and subthemes after member checking done by two researchers
Key Findings	<ul style="list-style-type: none"> - Several participants found specialized sports prosthesis/attachment to facilitate better posture, increased strength, stability, balance, weight distribution, prevent contralateral limb overuse, and improve quality of participation. - Reported hinderances of prosthesis use during sports included weight, range of motion limitations, and poor comfort and fit. - Some participants preferred to participate in sports without a prosthesis, having adapted before initially receiving a prosthesis. 	<ul style="list-style-type: none"> - Participants felt their RSP allowed them to run faster, jump higher, and participate in physical activities with peers. - All participants expressed positive feelings when wearing the RSP and toward the cosmesis of the RSP. - Participants identified specific activities they preferred doing with either their daily use prosthesis or RSP. - Perception of capabilities of RSP greatly expanded after receiving an RSP. - The most reported RSP activity was running, with five other sports reported 	<ul style="list-style-type: none"> - 7 of 9 children utilized a sport prosthesis. - All 9 children participated in sports or recreation with family or friends. - 8 of 9 children participated in structured sports or recreation. - 10 different sports reported

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	<ul style="list-style-type: none"> - Some sports leagues do not allow the use of a prosthesis or have heavy regulations on the types of prostheses allowed. - Some participants reported bullying as a barrier to wearing their prosthesis during sports. - All children reported involvement in inclusive programs. - 18 different sports reported 		
Study Quality	Low	Low	Medium
Applicability to clinician question/ clinical takeaway	<p>Medium</p> <p>Study findings indicate that some participants found sports specific prostheses to facilitate improved quality of participation in sports, while others found any prosthesis use in sports to be a hinderance</p>	<p>Medium</p> <p>Study findings indicate that running specific prosthesis users experience benefits in sports participation and have an increased perception of abilities after receiving an RSP</p>	<p>Low</p> <p>Study findings indicate that most participants utilize a sports specific prosthesis for sports participation</p>
Study Limitations	<ul style="list-style-type: none"> - Small sample size - Lack of control group - No differentiation between results from upper and lower limb involvement - All participants from same outpatient clinic and geographical area - Lack of member checking - Inconsistencies between child vs parental involvement 	<ul style="list-style-type: none"> - Small sample size - Lack of control group - All participants from same prosthetic clinic and geographic area - Lack of member checking - Recency bias-children had to recall experiences prior to Covid lockdown - Inclusion criteria of current RSP users could cause over representation of positive feelings towards RSP 	<ul style="list-style-type: none"> - Small samples size - Lack of control group - No differentiation between results from upper and lower limb involvement - Specifically aimed at evaluating in Australian setting