

The Gender Participation Gap: Barriers to Physical Activity for Females Aged 17–25; A Student Cohort in Taranaki, New Zealand

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Regular physical activity (PA)—including recreational activities, structured exercise, and organised sport—is associated with a wide range of health benefits; however, participation rates among Aotearoa New Zealanders are in steady decline, particularly for females. Statistics indicate that females aged 12–49 participate in significantly less PA than males of the same age, with the gap particularly pronounced among females aged 15–25, who engage in approximately 20% less PA (Sport New Zealand, 2020). The aim of this study was to investigate the barriers affecting young females' ability to meet recommended PA guidelines. Fifty-five survey responses were collected from female students aged 17–25 at the Western Institute of Technology at Taranaki, Te Pūkenga (WITT Te Pūkenga). Findings indicated a substantial proportion of respondents fell below guidelines set out by the World Health Organization (WHO, 2020) and Te Whatu Ora Health: New Zealand (Te Whatu Ora, 2017). The primary barriers to PA identified included time constraints, low energy or motivation, and feelings of insecurity around fitness levels. These findings highlight the gap between intention and behaviour and the need for more tailored, context-sensitive interventions. This study provides a foundation for future efforts to increase physical activity levels among young females and narrow the gender participation gap.

KEYWORDS: gender discrepancy; participation gap; physical activity

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PHYSICAL ACTIVITY (PA) is a critical component in maintaining good health, offering a myriad of benefits that extend beyond the physical to encompass mental and emotional well-being. Despite these clear advantages, a concerning trend has emerged in Aotearoa New Zealand, mirroring global patterns, where

PA levels are declining. This negative trend is particularly pronounced among young females, aged 15–25, who engage in 20% less PA than their male counterparts. This creates a significant gender participation gap. This gap points to lost potential for improved health, well-being, and quality of life within this cohort. It is important,

therefore, to gain some understanding of the key drivers for the decline within this group, as PA habits formed during these formative years often set the trajectory for lifestyle choices in later years. Previous research, including national surveys by Sport New Zealand, has begun to shed light on these factors, but more nuanced, context-specific studies are necessary to fully illuminate the issue. This research delves deeper into the experiences of female students aged 17–25 in Taranaki, Aotearoa, and identifies the unique challenges they face regarding PA. By focusing on the key barriers to PA for this cohort, this study was able to identify several areas where actionable, targeted interventions can contribute to reversing the downward trend in PA among young New Zealand females.

BACKGROUND AND IMPORTANCE

Extensive research confirms that individuals who are physically active have a reduced risk of premature mortality and a wide range of chronic conditions, including cancer, cardiovascular disease, and metabolic disorders (Warburton & Bredin, 2017). PA is also linked to improved psychological well-being and higher levels of self-esteem, which further supports its importance (Edwards et al., 2004; Kandola et al., 2020).

Despite these well-established benefits, PA levels remain insufficient both nationally and globally. In Aotearoa, the Ministry of Health recommends that adults engage in at least 2½ hours of moderate or 1¼ hours of vigorous activity per week, and that youth (aged 5–17) complete at least 1 hour per day of moderate to vigorous PA (Te Whatu Ora, 2017). However, adherence to these guidelines remains low. Sport New Zealand conducts a comprehensive and nationally representative survey of New Zealanders' physical activity participation. The most recent survey found that only 51.7% of adults and just 7% of youth met these recommendations. Globally, similar trends have been observed, with adolescent females consistently showing lower activity levels than males (Guthold et al., 2020).

Gender disparities in PA participation emerge early and widen during adolescence. In Aotearoa, the gap is most notable between the ages of 15 and 24, where female participation is approximately 20% lower than male participation (Sport New Zealand, 2020). Internationally, Guthold et al. (2020) conducted a pooled analysis of almost 300 population-based surveys covering 1.6 million adolescents across 146 countries. The study found that 84.7% of girls failed to meet global PA recommendations compared to 77.6% of boys. More recently, Araujo et al. (2024) analysed data from over 700,000 adolescents worldwide and confirmed that boys remain consistently more active than girls, with the gender gap widening further among older adolescents.

Establishing positive PA habits during adolescence and early adulthood is crucial, as behaviours adopted in this period often continue into adulthood (Telama, 2009). However, understanding the barriers that young females face is key to closing the participation gap. Sport New Zealand (2020) identified that females aged 15–24 report a greater number of barriers to PA than males, with common themes including low perceived fitness, lack of confidence, and fatigue. Similarly, Duffey et al. (2021), in a systematic review, found that adolescent girls commonly face barriers such as lack of time and lack of support from peers, family, and teachers.

Importantly, barriers are not purely individual but are shaped by broader social, cultural, and environmental factors. Burton et al. (2021) explored these influences in a qualitative study involving female Emirati university students, finding that cultural expectations around modesty and social appropriateness played a major role in limiting their PA engagement. Their study highlighted the need for culturally sensitive interventions that acknowledge and integrate social norms rather than simply promoting individual behaviour change. Similarly, Peng et al. (2023) conducted a systematic review exploring barriers and enablers to PA among young adult women. Their findings highlighted the complex interplay of different influences on a person,

with commonly cited barriers including time constraints, body image concerns, family and cultural expectations, and safety issues within the physical environment.

Although many young females report strong intentions to be physically active, these barriers can prevent intentions from being translated into action. Craggs et al. (2011), in their systematic review, emphasise the need for further research to better understand and bridge this intention–behaviour gap. In response to these challenges, national initiatives such as the “It’s My Move” campaign (Campaign Brief New Zealand, 2022) have sought to promote PA among young females. However, many interventions to date remain broad in focus and rely heavily on survey findings rather than cohort-specific research. There is a pressing need for more detailed, context-sensitive investigations to better inform the development of interventions so that they can address the complex social, psychological, and cultural barriers faced by young women today.

METHOD

Participants were recruited from the student body at the Western Institute of Technology at Taranaki, Te Pūkenga (WITT Te Pūkenga). All current female students aged 17–25 years were eligible to participate. At the time of survey distribution in October 2023, the eligible population included 260 students, of whom 55 completed and returned the survey (21.15% response rate).

The lead researcher was employed as a tutor within the same institute during the study period. To mitigate potential bias, surveys were anonymous and voluntary, and no academic consequences were associated with participation or non-participation.

Ethical approval was obtained from the Western Institute of Technology at Taranaki Human Ethics Committee prior to data collection. Participants provided informed consent electronically before completing the survey.

The survey consisted of 13 questions divided into two sections: (1) current levels of PA and (2) perceived barriers to PA. PA was broadly defined to include three categories: recreational

activities (e.g., walking, jogging), structured exercise (e.g., gym classes, yoga), and organised competitive sport. The survey was distributed electronically using SurveyMonkey, a secure online platform employing SSL encryption to ensure confidentiality.

Survey items were adapted primarily from the Active NZ Survey (Sport New Zealand, 2020), which measures PA behaviours and barriers in Aotearoa. To ensure broader relevance and strengthen validity, questionnaire design was additionally informed by international literature on PA participation among adolescents and young adults. Specifically, the survey incorporated barrier themes identified in systematic reviews and cohort studies, including low perceived fitness, lack of confidence, time constraints, fatigue, social and cultural influences, and environmental access issues (Burton et al., 2021; Guthold et al., 2020; Owen et al., 2022). Emphasis was placed on barriers frequently cited by young females, such as psychological self-perception, lack of peer support, and broader sociocultural pressures.

Survey items were grouped according to common domains found across the literature: physiological, psychological, sociocultural, and ecological factors. Cost was also included as a barrier, recognising its consistent identification in national reports and international studies as a limiting factor to PA participation. An open-ended question was included to capture additional enablers or barriers not anticipated by structured items.

Descriptive statistics were used to summarise quantitative data, including participation rates and time spent in PA per week across the three categories (sport, structured exercise, and recreation). Survey responses were primarily analysed quantitatively using frequency distributions. Limited qualitative data from open-ended questions were reviewed to identify supplementary insights; however, due to the small number and exploratory nature of responses, findings are presented primarily as quantitative results with qualitative comments used illustratively.

RESULTS

The 55 respondents demonstrated varied preferences in their PA, duration of exercise,

and the types of barriers identified. The key findings are represented below.

Figure 1

Physical Activity by Type (Sport, Structured Exercise, and Recreation)

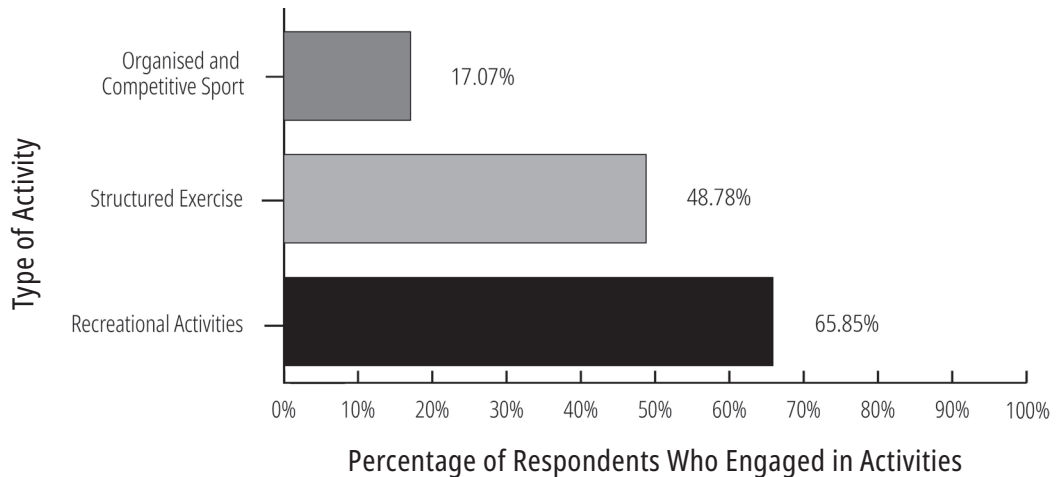
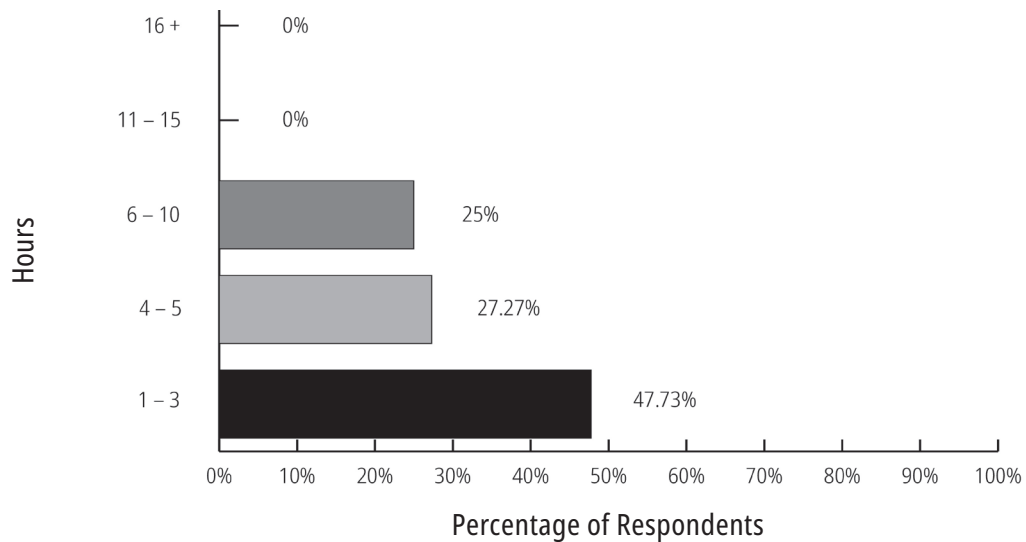


Figure 2

Time Spent Weekly in Physical Activity



Key Barriers Identified (see Table 1):

- Time constraints
- Lack of energy/self-motivation
- Feelings of insecurity

Table 1*Key Barriers to Physical Activity*

	1 – Strongly Disagree	2 – Disagree	3 – Agree	4 – Strongly Agree	Total	Weighted Average
"I'm not fit enough"	7.32% 3	36.59% 15	36.59% 15	19.51% 8	41	2.68
"I'm too tired"	2.44% 1	17.07% 7	56.10% 23	24.39% 10	41	3.02
"It's too hard to motivate myself"	0.00% 0	29.27% 12	56.10% 23	14.63% 6	41	2.85
"I prefer to do other things"	4.88% 2	51.22% 21	39.02% 16	4.88% 2	41	2.44
"I have nobody to do it with"	12.20% 5	31.71% 13	36.59% 15	19.51% 8	41	2.63
"I can't afford it"	14.63% 6	43.90% 18	36.59% 15	4.88% 2	41	2.32
"I have nowhere to do it"	19.51% 8	58.54% 24	14.63% 6	7.32% 3	41	2.10
"I don't have time"	0.00% 0	17.07% 7	41.46% 17	41.46% 17	41	3.24

DISCUSSION

This study identified three barriers to PA among females aged 17–25 in Taranaki, Aotearoa—lack of time, low energy, and feelings of insecurity—providing insight into the challenges faced by this cohort. The prevalent theme of busyness, primarily due to work and study commitments, emerged as a significant impediment to PA, which was compounded by the resulting fatigue. These findings aligned with the research carried out by Sport New Zealand, which adds weight to the hypothesis that the pervasive nature of modern lifestyles negatively impacts PA engagement (Sport New Zealand, 2020).

Despite these barriers, 74% of the surveyed cohort reported engaging in some form of PA within the previous week. Importantly, this included a range of activity types: recreational activities (e.g., walking, jogging), structured exercise (e.g., gym classes, yoga), and organised

competitive sport. While 65.85% participated in recreational activities, this number dropped to 48.78% for structured exercise and fell significantly further for organised competitive sport where only 17.07% participated. Although all types of PA contribute to health and well-being, the particularly low rate of organised sport participation warrants further exploration, given that organised sport is associated with higher overall activity levels, stronger social connection, and the development of lifelong habits of PA.

Although further study is needed to fully understand why young females disengage from organised sport and structured exercise, feelings of insecurity were a recurring theme in this research. Participants reported experiencing low confidence, not wishing to be judged, and a belief that their fitness was inadequate. This highlights the complexity of the psychological barriers

young females encounter compared to their male counterparts, who report far fewer psychological constraints, and aligns with existing literature that acknowledges the influence of perceived social stigmas and the need for supportive, non-judging PA environments tailored to females' needs (Park & Williams, 2022).

Unfortunately, this lack of participation in organised competitive sport results in missed opportunities both for the individual and for the development of the sports themselves. Young females are, of course, inadvertently foregoing the opportunity to make connections, build friendships, and gain a plethora of soft skills (leadership, decision-making, negotiating, risk taking) associated with being a part of a team. They are also, somewhat ironically, missing out on the opportunity to develop a strong and robust self-esteem, which may result as a byproduct of success in the organised sporting arena (Donnelly et al., 2019; Edwards et al., 2004).

The time respondents engaged in PA varied between 1 and 10 hours weekly. While the upper end aligns with the recommended activity levels set out by the Ministry of Health (MOH, 2021) for adults (at least 2.5 hours per week), it falls substantially short of the target for adolescents and young adults, which is at least 60 minutes per day, or approximately 7 hours per week (MOH, 2021; WHO, 2020). This discrepancy highlights a concerning gap between reported activity levels and those required for optimal health outcomes in this age group.

Interestingly, an overwhelming 85% of participants expressed a desire to increase their PA levels, underscoring a significant gap between their current practices and their aspirations. This gap, we argue, could be narrowed substantially if respondents participated in either structured exercise or organised competitive sport, given that participation in these types of activities has been linked to greater overall PA volume and improved guideline adherence (Marques et al., 2016; Mooses & Kull, 2020). Investigating ways to encourage young females to get involved in structured and organised activities early, and remain in them post-secondary school, is crucial.

However, it should be noted that there is also a sociocultural barrier to participation in organised competitive sport for young females that must be addressed and overcome. After the completion of secondary school, there are simply far fewer options for organised competitive sport for females than for males, not only within the Taranaki region, but Aotearoa-wide. Unfortunately, the lack of options results in fewer young females continuing with organised competitive sport post-secondary school, which in turn leads to fewer options being offered—creating a negative downward spiral (Sport New Zealand, 2022). To mitigate this imbalance, a far greater investment in a range of post-secondary school sporting codes for females is needed, combined with a concerted effort to inform secondary school leavers of their options.

Improved health and well-being were reported as primary motivators for PA. Participants not only acknowledged these health benefits but also cited them as key drivers for their engagement in PA, underscoring the impact health education has had in informing, encouraging, and promoting PA as part of a healthy lifestyle. This finding supports the value of strengthening health promotion messages not just for general activity but also to specifically encourage structured and organised forms of participation where feasible. Respondents also highlighted the significance of sociocultural factors such as social support and community engagement in fostering a conducive environment for PA. Thus, a sense of belonging and shared experience within active communities can serve as a powerful catalyst for sustained engagement for females.

A final key motivator identified was enjoyment; if respondents were not “having fun” or “feeling good” about the physical activities they were participating in, they were less likely to continue with them. This can be contrasted with young males who, according to research, are less motivated by enjoyment and more focused on the competitive nature of sport and the need to push through psychological barriers such as fitness plateaus to become proficient (Deaner et al., 2016). This suggests that organised female sport

needs to move away from historical, male-centric templates for coaching, training, and definitions of sporting success, and instead develop programmes that are female-centric—focusing on the needs and preferences of young females, such as a strong sense of belonging and a clear focus on enjoyment.

This study's regional focus on Taranaki provides valuable geographic-specific insights, contributing to a deeper understanding of PA determinants within provincial Aotearoa. The findings not only align with national and international research but also illuminate the unique socioeconomic and geographical factors at play in Taranaki, offering a localised perspective that can inform targeted interventions.

LIMITATIONS

The primary limitation of this study is its sample size and context, which may not fully represent the broader population of young females in Aotearoa. Additionally, the reliance on self-reported data could introduce response bias.

RECOMMENDATIONS

This study's findings can inform various stakeholders, including educational institutions, community organisations, and policymakers, in developing targeted strategies to promote PA for young females. To increase PA for this cohort, research suggests the following should be considered:

- Investigating ways to encourage young females to get involved in organised competitive sport or structured activities early and remain in them after secondary school.
- Investing more resources in the development of a wider range of post-secondary school sporting codes for females.
- Focusing on the benefits of organised competitive sports within the Health Education curriculum at school level.
- Making a concerted and sustained marketing effort to inform female secondary school leavers of the options available.

Stakeholders should also consider moving organised and competitive sport away from the historical, male-centric templates for coaching, training, and what it defines as sporting success, and instead develop programmes that are female-centric—focusing on the needs and preferences of young females, such as a strong sense of belonging and a clear focus on enjoyment.

CONCLUSIONS

The gender participation gap in PA among females aged 17–25 is well documented both in Aotearoa and internationally, with evidence indicating that disparities not only emerge early but also widen through adolescence and into young adulthood (Guthold et al., 2020; Sport New Zealand, 2020). This gap has the potential to contribute to significant physical, mental, and social health burdens for affected individuals and, cumulatively, for wider society. Although a substantial proportion of young females in this study reported engaging in some form of PA, the weekly duration varied widely, and many participants did not meet national recommendations for PA (Te Whatu Ora, 2017). These findings reflect broader patterns observed globally, where gendered barriers to PA persist despite strong motivation to participate (Hu et al., 2021; Owen et al., 2022). Our findings suggest that lower engagement in organised and competitive sports post-secondary school contribute to the observed discrepancies in overall activity levels. However, participation barriers are complex, going further than simple availability of competitive sports to include psychological, sociocultural, and environmental factors. Future research should prioritise identifying effective enablers, understanding how young females prefer to engage with physical activity, expanding the range and accessibility of opportunities post-secondary school, and developing targeted strategies to address complex social and cultural barriers. Context-sensitive interventions, grounded in both national and international evidence, will be critical to closing the gender gap and improving long-term health outcomes for young women.

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