

Feasibility and design of an online social networking intervention to increase physical activity in teenage girls

Teenage girls described physical activity as:

Physical activity is	Focus group	Physical activity is not	Focus group
Team sports	1, 2, 3, 5, 6	Not walking	1, 3, 4
Running	2, 3, 4, 5	Prefers solo sports	1, 2
Dance	3, 4	Not housework	3
Training program	1, 5	Dislikes running	2
Walking (to friends/transport to school/dog)	2, 5	Not dance	6
Lot of fitness and sport	1		
Individual sport	2		
Gym	2		
Routines	2		
Playing with pets	5		
Swimming	5		
Taekwondo	5		
Playing running games such as "red rover"	6		

Product Category defined as the package of benefits that arise from undertaking physical activity

Price Category defined as the cost (barriers) perceived in undertaking physical activity.

Benefits	Focus group	Costs	Focus group
Physical/practical			
Fitness	1, 3	Time management	1, 2, 4
Health	2, 5	Limited by injury	1
Benefit afterwards	1	School work	2, 4
Motivated to be attractive	2	Paid work	2, 4
		Lack of transport	2
		Lack of money	2
		Weather	2
		Safety (at night)	2
		Other sport commitments	4
		No classes in holidays	4
Psychological			

Enjoyment	1, 2, 3, 6	Feel bad about self, due to comparison of performance, not keeping up, burden to team, not good enough	1, 2, 4, 5
Competition	1, 3, 6	Failing to achieve goals on the amount of activity	1
Motivated by others/friends	1, 2, 3, 4	Perceived lack of control (due to training programme?)	1
Self-motivation to achieve personal best	1, 2, 3	Negative messages about weight	2
Do activity with friends	1, 3, 4	Rejection of invitations	5
Social support/talking to a friend/parent while walking	2, 3, 4	Required to motivate friends to join	4
Meet people	2, 4	Responsible for other's motivation	4
Improves mood / happiness	3, 4	Managing a group perceived to be a lot of work	4
Activity supported by parent	1		
Self efficacy – sense of control	1		
Makes you feel better about yourself	5		

Social media as a promotion channel category defined as exploring the effectiveness of various social media formats may be effective for communicating a message about physical activity

Facilitators	Focus group	Barriers	Focus group
Parent perceptions			
Parent supportive of app	1, 2, 3, 4, 5, 6	Parental concern re social pressure/over use/strangers online	3, 5, 6
Parent will like to be informed	1, 3, 4	Parents won't need to be informed	2
Perceived neutral attitude of parents to online	1, 4	Protective parents	1
Parents will not perceived risk	1	Social media addiction	1
		Social media-rejection	1
		Being forced to take up app	1
Media platform			
Facebook	1, 2, 3, 4, 5	None or infrequent Facebook use	6
Instagram	3, 6		

Phone	4, 6		
Computer/ Laptop	2, 4		
ipad	4, 5		

Placement of product category defined as how PA messages are placed or distributed to create opportunities

Facilitators	Focus group	Barriers	Focus group
Promotion through school	1, 4, 5, 6	School not cool	5
Credibility of the university	1	School associated with being boring	4
		School may be judged by non-friends	4
		School opportunity for bullying if fall behind	4

Features of a social media based intervention category defined as factors that might facilitate an increase in physical activity

Facilitators	Focus group	Barriers	Focus group
Competition			
Competition element	1, 2, 4, 5, 6	May be too competitive	2
		Pressure to perform	2
Group setting			
Do with friends (provide support,) encourage competition	1, 2, 3, 5, 6	Don't want to be a leader	3, 4, 6
Group consensus process	1, 2, 4, 5	Needing to be friends with strangers	4, 5
Family team	1	Difficulty motivating friends/Friends drop out	4
Sharing roles	5	Falling behind	3
Encourage others to be more active	6	Forgetful	3
Potential to make new friends	6	Friends too kind to motivate effectively	1
Able to communicate with others about progress	2	Group size	2
Safe as only within group	2	Would need others to set up group	6
Goal setting			
Goals to get rewards building up points to earn prizes	1, 2, 3, 4	Don't need reward	1
Reward for joining, sustained effort, reaching levels	2	Unachievable goal	5
Feedback			

feedback on progress, measurement of intensity, periods of activity, time, calorie use, distance	1, 2, 5, 6	Difficult to maintain interest	2
Personalised data	1	Entering information	1
Notification on who is working out at the same time, goals, achievements	2	Errors in measurement device	1
Online reviews from other users	2		
Features of the programme			
Variety	2	Technical problems/lack of internet	2, 6
Short duration of programme	2	Daily	3
Timing to ensure relevant to other things that are happening	2	Needing to log in	2
Ability to continue after 50 days	2	Novelty wears off	2
Able to do custom settings re number of notifications and timing of reminders	2	Over exposure	3
Control over choosing to exercise	2		
Incorporates home based exercise	2		
Progression from walking to other exercises	2		
Simple exercises	2		
Weekly challenges	5		
Music	5		

Design category defined as features created by a graphic designer for an online social media program

Facilitators	Focus group	Barriers	Focus group
Style			
Colour/bright/light	1, 2, 3, 4, 6	Bland appearance	4, 5, 6
Photos	2, 4, 6	Cartoon	3, 4
“Cool”	1, 3, 5	Too dark	3, 4
Readability/clear font/easy to see	1, 2, 4	Boring design	5, 6
Simplicity	1, 4	Negative association (Ghetto appearance)	1
Fit looking girls	2	Unprofessional look	2
Recognisable title	2	Scrap book look	2
Plain background	3	Looking like a model	2
Eye catching	5	Bright colour	3
		“in your face”	3
		Dull appearance	5
		Plain	5

Images should			
Portray a health body image	1, 4, 6	Not be childlike	1, 3, 5
Portray a realistic and appropriate body image	1, 3, 4	Not be too girly	1, 6
Portray a fit image	1, 6	Have no relevance of image to exercise	1, 6
Be age appropriate	1		
Be trustworthy	1		
Text			
Relevant tip	1, 2, 3, 4, 5	Boring tip	1, 2, 3, 4
Facts	2, 3, 4, 5, 6	Lame	1
Simple	2, 5	Not relevant to teenage girls	1, 2
Shopping tips	3, 4, 5	Humour	2, 6
Achievable	1,2	Feels forced	1
Motivating tip	1, 6	Mixed messages	1
Useful/effective tip	1	No relevance to exercise	1
Nutrition information	1, 2	Not coherent with other messages	1
Advice on stress management	2	Contradiction between food and exercise	2
Inspirational people	3	Not logical	2
Message about fitness	3	Others story	2
Variety	1	Sounds too old	2
Educational tip	1	Chores tips	3
Tips from role models	1	Inspirational tips that try too hard	3
Inspirational text	2	Shopping tips	6
Short	2		
Addition of other exercise suggestions	2		
Advice on tiredness	2		
Encouraging realistic progress	4		
Motivational	4		

Note: a feature may appear as both a facilitator and a barrier within one focus group reflecting opposing views of girls within the group.