

Physical Activity Messages Targeting Parents

Subjects: **Others**

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Physical activity (PA) messages have demonstrated success in targeting parent support for PA. However, little research exists to inform the development and dissemination of optimally effective PA messages targeting parents. A synthesis of existing literature is necessary to inform message development and dissemination strategies.

physical activity

health promotion

children

children with disabilities

messaging

1. Introduction

Physical activity among children is on the decline. For example, only one third of children in Canada and one quarter of children in the United States are meeting recommended physical activity (PA) guidelines ^{[1][2]}. There is a need for strategies to increase PA among children and it is suggested that such strategies should target parent support for PA ^{[3][4][5]} as it is an important determinant of PA participation among children ^{[5][6][7][8][9]}.

One strategy for increasing parent support for PA is through the development and dissemination of targeted PA messages ^[10]. Messages can include motivational statements or information about PA ^[11], such as the benefits of PA or the importance of supporting PA. Messages can be disseminated (i.e., purposely distributed) via different media channels (e.g., social media campaigns, mass media messaging) to a target audience such as parents ^[12]. Various PA campaigns have demonstrated success using persuasive messages targeting parent support for PA and its antecedents (e.g., motivation, attitudes, self-efficacy, planning) ^{[10][13][14][15][16]}. However, there are no known practice guidelines for the development and dissemination of PA messages targeting parents. An important first step in understanding such practices is a comprehensive synthesis of the peer-reviewed literature to identify strategies that have been employed in research regarding PA messages targeting parents.

When developing and disseminating PA messages targeting parents, it may be necessary to consider the unique needs of parents of children with disabilities (CWD) ^[17]. CWD are less active than their peers without disabilities ^[18] and often rely on parent support to facilitate PA ^{[8][19]}. PA promotion efforts have been successful in increasing planning to provide support for PA ^[20] and psychosocial antecedents of parent and self-reported parent support for PA ^[21] holding promise as a strategy to motivate support for PA among parents of CWD ^{[17][22]}. Parents of CWD have expressed unique and specific messaging needs ^[17] and there has been a call for inclusive PA messaging practices that meet the specific needs of people with disabilities ^[23]. However, there is currently no known synthesis of research regarding strategies for developing and disseminating PA messages targeting parents of CWD. Considering the unique needs of parents of CWD could inform practice guidelines for motivating PA support among parents of CWD through targeted messaging.

The Framework for Knowledge Transfer [24] can guide the process of consolidating research findings to aid informed decision making around message development and dissemination to a target audience. Within the context of the current review, the framework guided the clear identification of (a) a target audience (i.e., parents and parents of CWD), (b) literature supporting the development of PA messages targeting parents and (c) literature supporting the dissemination of PA messages targeting parents. Therefore, this review has two purposes: (a) to identify considerations within the peer-reviewed literature regarding the development and dissemination of PA messages targeting parents and (b) to identify considerations regarding the development and dissemination of PA messages specifically targeting parents of CWD.

2. Materials and Methods

A peer-reviewed literature search and expert consultation were used to capture broad and comprehensive literature [25]. Search terms were determined in consultation with a librarian after the detailed assessment of indexing terms applied to a ‘known’ set of articles [10][17][26][27]. A combination of terms for PA, exercise, parents, child, mass media, dissemination, and messages was applied for the searches to identify relevant literature. In addition to these terms, the term disability was added in a secondary search to identify research specific to parents of CWD. An example of a full electronic search strategy is as follows: A keyword search string of “physical activity AND parents AND child AND messages OR mass media OR dissemination” was entered into the journal database PsychInfo. Limits were applied in line with eligibility criteria. The following concepts were defined before conducting the search to provide clarity and consistency for the researchers: PA, parent, child, disability, messages, and dissemination (See **Table 1**).

Table 1. Working definitions for the purpose of this research.

Term	Working Definition
Physical Activity (PA)	Any bodily movement produced by skeletal muscles that results in energy expenditure and results in increased heart rate and breathing was used to describe both structured PA such as sports and programs, as well as leisure time unstructured PA such playing with friends, dancing, or walking. Active transportation was also included. Types of “play” were included in the review as long as they were specified as physical or active play.
Parent	Biological or legal guardian and/or caregiver.
Child	Anyone up to and including age 24.
Disability	Activity limitation or participation restrictions caused by physical or cognitive impairment.
Messages and information	All information or knowledge about PA to be conveyed to a message recipient. All forms of information and messages were allowable and included (e.g., digital, print, radio).
Dissemination	Distribution of messages and information to a target audience via purposeful channels and strategies. All forms of dissemination were allowable and included (e.g., social media

Term	Working Definition
	campaigns, mass media messaging/commercials, posting guidelines on websites, or communications with a practitioner).

Content experts (n = 28) included the first author listed on each of the records identified through database searches. They were contacted via email (September–October 2019) and informed of the study objectives and were asked to provide any relevant literature. Four authors could not be reached, 18 authors responded, six authors did not respond.

A reference managing software (i.e., Mendeley, London, United Kingdom) was used. The initial title and abstract screening was performed by one researcher (initials removed for blind submission). Two researchers (initials removed for blind submission) screened the full-text of remaining records independently based on the eligibility criteria. Among these two researchers, there was an 80.5% agree when screening full-texts for inclusion. Any discrepancies in agreement were resolved by discussion and consensus amongst all authors. One researcher (initials removed for blind submission) manually searched the reference lists of eligible articles to identify any additional relevant records and screened records from the expert consultations. A second researcher audited the manual search.

One researcher (initials removed for blind submission) extracted the following data from eligible articles: (a) record characteristics (i.e., author, title, year, study design, and participant characteristics), (b) article focus (i.e., message development, message dissemination, or both), (c) message development or dissemination strategy used or discussed, and (d) key findings. One researcher developed preliminary themes and subthemes across the records using a thematic analysis approach. These themes and subthemes were discussed and finalized among all authors.

3. Discussion

This is the first known systematic scoping review to identify peer-reviewed literature regarding the development and dissemination of PA messages for parents, while also identifying additional consideration for targeting parents of CWD.

Although parents generally rank PA as a high priority for their children ^[5], they often encounter barriers to providing support for PA ^{[28][29][30][31]}. Taking identified barriers into consideration ^{[28][29][30][31]}, providing information regarding common barriers may serve to enhance parents' self-efficacy or perceived behavioural control regarding their abilities to provide support for PA. Previous messaging campaigns targeting parents have been effective in addressing common barriers to support for PA ^{[30][32][33]}. While some barriers (e.g., financial limitations, weather) may be difficult to address via messages alone, providing parents with informational tools or examples may help to manage barriers ^[26] (e.g., ideas for free, indoor, or low-cost PA).

The Framework for Knowledge Transfer ^[24] highlights the importance of using evidence-informed message dissemination efforts as well as engaging researchers and community-based organizations to identify optimally

effective message dissemination strategies. PA messages targeting parents should be disseminated in a way that maximizes cognitive processing pathways (i.e., awareness and recall). While awareness and recall do not necessarily directly translate into changes in parent support for PA [10][34][35], PA messages that utilize dissemination strategies to effectively evoke awareness and recall may positively affect antecedents of behaviour such as attitudes and perceived behavioural control [13][22][36]. While more research is needed to understand practices to garner awareness and recall, one suggested dissemination strategy is the use of consistent and repeated exposure of PA messages [14].

Many dissemination strategies may be universally effective. However, parents of CWD have expressed a need to feel understood as an audience [37]. Dissemination strategies that meet the needs and preferences of parents of CWD as an audience can optimize information seeking behaviours [38] and message effectiveness [24] while also enhancing important antecedents to behaviour change such as awareness and recall [13][39]. Consideration for the unique preferences identified in this review (e.g., multi-platform approach, “central hub” for information, blogs, and chatrooms) are recommended when disseminating PA messages targeting parents of CWD via credible sources.

4. Conclusions

The results of this systematic scoping review have pragmatic implications in informing PA message development and dissemination in practical settings, and can inform the development of practice guidelines for creating and disseminating PA messages targeting all parents and parents of CWD. Future research is encouraged to explore message development and dissemination strategies from other areas of health promotion and social marketing to further inform how to optimally develop and disseminate PA messages to parents. Further, it is suggested that future research also consider various mechanisms of health behaviour change in order to move messaging research forward and understand which mechanisms might be best to target through the use of persuasive PA messages. The information synthesized within this review can be used to guide future research as well as PA organizations wishing to develop and disseminate messages to parents to motivate parent support for PA. The review provides unique considerations for the development and dissemination of PA messages targeting parents of CWD, which are important in addressing the call for inclusive PA messaging [23]. The development and dissemination of evidence-informed PA messages targeting parents can optimize their impact in motivating parent support for PA and ultimately PA participation among all children.

References

1. Roberts, K.C.; Yao, X.; Carson, V.; Chaput, J.-P.; Janssen, I.; Tremblay, M.S. Meeting the Canadian 24-Hour Movement Guidelines for Children and Youth. *Health Rep.* 2017, 28, 3–7.
2. The Child & Adolescent Health Measurement Initiative. 2016. Available online: <https://www.childhealthdata.org/learn-about-the-nsch/NSCH> (accessed on 31 December 2020).

3. Bloemen, M.; Van Wely, L.; Mollema, J.; Dallmeijer, A.; De Groot, J. Evidence for increasing physical activity in children with physical disabilities: A systematic review. *Dev. Med. Child Neurol.* 2017, 59, 1004–1010.
4. Gustafson, S.L.; Rhodes, R.E. Parental Correlates of Physical Activity in Children and Early Adolescents. *Sports Med.* 2006, 36, 79–97.
5. Rhodes, R.E.; Spence, J.C.; Berry, T.; Deshpande, S.; Faulkner, G.; Latimer-Cheung, A.E.; O'Reilly, N.; Tremblay, M.S. Predicting Changes Across 12 Months in Three Types of Parental Support Behaviors and Mothers' Perceptions of Child Physical Activity. *Ann. Behav. Med.* 2015, 49, 853–864.
6. An, J.; Goodwin, D.L. Physical Education for Students with Spina Bifida: Mothers' Perspectives. *Adapt. Phys. Act. Q.* 2007, 24, 38–58.
7. Beets, M.W.; Cardinal, B.J.; Alderman, B. Parental Social Support and the Physical Activity-Related Behaviors of Youth: A Review. *Health Educ. Behav.* 2010, 37, 621–644.
8. Kowalchuk, K.; Crompton, S. Living with disability series social participation of children with disabilities. *Can Soc. Trends.* 2009, 88, 63–72.
9. Zecevic, C.A.; Tremblay, L.; Lovsin, T.; Michel, L. Parental Influence on Young Children's Physical Activity. *Int. J. Pediatr.* 2010, 2010, 1–9.
10. Gainforth, H.L.; Jarvis, J.W.; Berry, T.R.; Chulak-Bozzer, T.; Deshpande, S.; Faulkner, G.; Rhodes, R.E.; Spence, J.C.; Tremblay, M.S.; Latimer-Cheung, A.E. Evaluating the ParticipACTION "Think Again" Campaign. *Health Educ. Behav.* 2015, 43, 434–441.
11. Latimer, A.E.; Brawley, L.R.; Bassett, R.L. A systematic review of three approaches for constructing physical activity messages: What messages work and what improvements are needed? *Int. J. Behav. Nutr. Phys. Act.* 2010, 7, 36.
12. Bauman, A.E.; Nelson, D.E.; Pratt, M.; Matsudo, V.; Schöeppe, S. Dissemination of Physical Activity Evidence, Programs, Policies, and Surveillance in the International Public Health Arena. *Am. J. Prev. Med.* 2006, 31, 57–65.
13. Huhman, M.E.; Potter, L.D.; Nolin, M.J.; Piesse, A.; Judkins, D.R.; Banspach, S.W.; Wong, F.L. The influence of the VERB campaign on children's physical activity in 2002 to 2006. *Am. J. Public Health* 2010, 100, 638–645.
14. Berry, T.R.; Craig, C.L.; Faulkner, G.; Latimer, A.; Rhodes, R.; Spence, J.C.; Tremblay, M.S. Mothers' Intentions to Support Children's Physical Activity Related to Attention and Implicit Agreement with Advertisements. *Int. J. Behav. Med.* 2012, 21, 131–138.
15. Jarvis, J.W.; Rhodes, R.E.; Deshpande, S.; Berry, T.R.; Chulak-Bozzer, T.; Faulkner, G.; Spence, J.C.; Tremblay, M.S.; Lati-mer-Cheung, A.E. Investigating the role of brand equity in predicting the

- relationship between message exposure and parental support for their child's physical activity. *Soc. Mark Q.* 2014, 20, 103–115.
16. Latimer-Cheung, A.E.; Murumets, K.; Faulkner, G. The National Voice of Physical Activity and Sport Participation in Canada. *Implement. Phys. Act. Strateg.* 2014, 61–70.
 17. Bassett-Gunter, R.; Ruscitti, R.; Latimer-Cheung, A.; Fraser-Thomas, J. Targeted physical activity messages for parents of children with disabilities: A qualitative investigation of parents' informational needs and preferences. *Res. Dev. Disabil.* 2017, 64, 37–46.
 18. Figueiredo, V.; Santos, S.; Gomes, F.; Peralta, M.; Marques, A. Formal and informal physical activity of students with and without intellectual disabilities: A Comparative study. *Sports Phys. Act.* 2016, 2, 24–30.
 19. Siebert, E.A.; Hamm, J.; Yun, J. Parental influence on physical activity of children with disabilities. *Int. J. Disabil. Dev. Educ.* 2017, 64, 378–390.
 20. Tanna, S.; Arbour-Nicitopoulos, K.; Rhodes, R.E.; Bassett-Gunter, R. A pilot study exploring the use of a telephone-assisted planning intervention to promote parental support for physical activity among children and youth with disabilities. *Psychol. Sport Exerc.* 2017, 32, 25–33.
 21. Larocca, V.; Latimer-Cheung, A.; Bassett-Gunter, R. The effects of physical activity messages on physical activity support behaviours and motivation among parents of children with disabilities. *J. Hum. Sport Exerc.* 2019, 51, 214.
 22. Williamson, C.; Baker, G.; Mutrie, N.; Niven, A.; Kelly, P. Get the message? A scoping review of physical activity messaging. *Int. J. Behav. Nutr. Phys. Act.* 2020, 17, 51.
 23. Smith, B.; Mallick, K.; Monforte, J.; Foster, C. Disability, the communication of physical activity and sedentary behaviour, and ableism: A call for inclusive messages. *Br. J. Sports Med.* 2021.
 24. Lavis, J.N.; Robertson, D.; Woodside, J.M.; McLeod, C.; Abelson, J. How Can Research Organizations More Effectively Transfer Research Knowledge to Decision Makers? *Milbank Q.* 2003, 81, 221–248.
 25. Levac, D.; Colquhoun, H.; O'Brien, K.K. Scoping studies: Advancing the methodology. *Implement. Sci.* 2010, 5, 69.
 26. Bassett-Gunter, R.; Stone, R.; Jarvis, J.; Latimer-Cheung, A. Motivating parent support for physical activity: The role of framed persuasive messages. *Health Educ. Res.* 2017, 32, 412–422.
 27. Higgins, J.P.T.; Thomas, J.; Chandler, J.; Cumpston, M.; Li, T.; Page, M.J.; Welch, V.A. (Eds.) *Cochrane Handbook for Systematic Reviews of Interventions Version 6.2 (Updated February 2021)*; Cochrane: Hoboken, NJ, USA, 2021; Available online: www.training.cochrane.org/handbook (accessed on 11 May 2021).

28. Faulkner, F.; White, L.; Riazi, N.; Latimer-Cheung, A.E.; Tremblay, M.S. Canadian 24-Hour Movement Guidelines for Children and Youth: Exploring the perceptions of stakeholders regarding their acceptability, barriers to uptake, and dissemination. *Appl. Physiol. Nutr. Metab.* 2016, 41, 303–310.
29. Hardy, L.L.; Hector, D.; Saleh, S.; King, L. Australian Middle Eastern parents' perceptions and practices of children's weight-related behaviours: Talking with Parents' Study. *Health Soc. Care Community* 2015, 24, e63–e71.
30. Slater, A.; Bowen, J.; Corsini, N.; Gardner, C.; Golley, R.; Noakes, M. Understanding parent concerns about children's diet, activity and weight status: An important step towards effective obesity prevention interventions. *Public Health Nutr.* 2009, 13, 1221–1228.
31. Stanley, R.; Jones, R.; Swann, C.; Christian, H.; Sherring, J.; Shilton, T.; Okely, A. Exploring Stakeholders' Perceptions of the Acceptability, Usability, and Dissemination of the Australian 24-Hour Movement Guidelines for the Early Years. *J. Phys. Act. Health* 2020, 17, 120–125.
32. Asbury, L.D.; Wong, F.L.; Price, S.M.; Nolin, M.J. The VERB™ Campaign: Applying a Branding Strategy in Public Health. *Am. J. Prev. Med.* 2008, 34, S183–S187.
33. Wong, F.; Huhman, M.; Asbury, L.; Bretthauer-Mueller, R.; McCarthy, S.; Londe, P.; Heitzler, C. VERB™—A social marketing campaign to increase physical activity among youth. *Prev. Chronic Dis.* 2004, 1, A10.
34. Price, S.M.; Huhman, M.; Potter, L.D. Influencing the Parents of Children Aged 9–13 Years: Findings from the VERB™ Campaign. *Am. J. Prev. Med.* 2008, 34, S267–S274.
35. Craig, C.L.; Bauman, A.; Gauvin, L.; Robertson, J.; Murumets, K. ParticipACTION: A mass media campaign targeting parents of inactive children; knowledge, saliency, and trialing behaviours. *Int. J. Behav. Nutr. Phys. Act.* 2009, 6, 88.
36. Huhman, M.; Kelly, R.P.; Edgar, T. Social Marketing as a Framework for Youth Physical Activity Initiatives: A 10-Year Retrospective on the Legacy of CDC's VERB Campaign. *Curr. Obes. Rep.* 2017, 6, 101–107.
37. Jaarsma, E.A.; Haslett, D.; Smith, B. Improving Communication of Information About Physical Activity Opportunities for People with Disabilities. *Adapt. Phys. Act. Q.* 2019, 36, 185–201.
38. Johnson, J.D.; Meischke, H. A Comprehensive Model of Cancer-Related Information Seeking Applied to Magazines. *Hum. Commun. Res.* 1993, 19, 343–367.
39. Bauman, A.; Bowles, H.R.; Huhman, M.; Heitzler, C.D.; Owen, N.; Smith, B.; Reger-Nash, B. Testing a Hierarchy-of-Effects Model: Pathways from Awareness to Outcomes in the VERB™ Campaign 2002–2003. *Am. J. Prev. Med.* 2008, 34, S249–S256.

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