Title: An investigation into regional medical practitioners' knowledge of exercise during pregnancy guidelines.

Running title: Practitioners knowledge of exercise during pregnancy guidelines.

Authors:

1. Dr Melanie Hayman, PhD (Corresponding Author)

School of Health, Medical and Applied Sciences

Central Queensland University, Bruce Highway, Rockhampton, QLD 4702

Email: m.j.hayman@cqu.edu.au Phone: 07 49306912

2. Mark Taranto

School of Health, Medical and Applied Sciences

Central Queensland University, Bruce Highway, Rockhampton, QLD 4702

Email: mark.e.taranto@cquemail.com

3. Dr Peter Reaburn, PhD

Faculty of Health Sciences and Medicine

Bond University, Laver Drive, Robina, QLD 4229

Email: p.reaburn@bond.edu.au

4. Dr Stephanie Alley, PhD

Physical Activity Research Group

School of Health, Medical and Applied Sciences

Central Queensland University, Bruce Highway, Rockhampton, QLD 4702

Email: s.alley@cqu.edu.au

5. Dr Camille Short, PhD

NHMRC ECR Fellow

Freemasons Foundation Centre for Men's Health

Faculty of Health Sciences

The University of Adelaide, North Terrace, Adelaide

Email: camille.short@adelaide.edu.au

I state that the contents are the authors' original work and that the paper has not been submitted for publication to another journal.

This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/ajr.12364](https://doi.org/10.1111/ajr.12364)

This article is protected by copyright. All rights reserved

“Competing interests: No relevant disclosures”

Author Manuscript

Article Type: Short Report

An investigation into medical practitioners' knowledge of exercise during pregnancy guidelines.

Introduction:

Increasing physical activity (PA) behaviours among Australian pregnant women is recognised as a national health priority.¹ This priority arises from the well-established link between physical activity during pregnancy and health benefits for both mother and her unborn child.² Despite these benefits, research suggests that less than 35% of Australian pregnant women are currently meeting exercise during pregnancy guidelines³ which recommend an accumulation of at least 150 minutes of moderate-vigorous PA per week, consisting of both aerobic and resistance-based activity.²

The priority to increase PA among pregnant women is further amplified in rural, regional and remote Australia where pregnant women report lower levels of PA, poorer maternal outcomes, and reduced access to specialist healthcare services.⁴ As a result, medical practitioner's in these communities are often required to provide a wider range of antenatal care services, including the provision of PA advice and counselling.⁵ Previous international research suggests that a lack of knowledge of the exercise during pregnancy guidelines among practitioners has contributed to medical practitioner's not actively engaging in PA counselling with pregnant women, and that when advice is provided, it is not always reflective of current evidence-based guidelines.⁵ However, little is known about Australian medical practitioner's knowledge of exercise during pregnancy guidelines. Therefore, the aim of this present study was to explore the knowledge of PA during pregnancy guidelines among a sample of regionally-based Australian medical practitioner's.

Participants, methods & results

All medical practitioner's practicing in the Rockhampton (Central Queensland) area (n = 80–90) at the time of this study were invited to participate in a short paper-based questionnaire investigating their knowledge of PA during pregnancy. Participants were asked to provide their level of agreement (agree, I don't know, disagree) in response to seven

statements that mirror current recommendations provided within Australian evidence-based PA during pregnancy guidelines.² Of the fifty medical practitioner's who responded (response rate 55–62%) most were women (58%), aged 45+ years (44%), practicing 10+ years (46%), completed their medical training in Australia (78%) and received no formal training on PA in pregnancy (96%).

As shown in Table 1, the majority (90%) of medical practitioner's agreed that PA is beneficial to the mother, while fewer agreed that PA is beneficial to the baby (70%). Most agreed that active women (76%) and previously sedentary women (72%) should participate in PA during pregnancy. Medical practitioner's agreed that pregnant women should participate in flexibility training (76%) more than aerobic training (48%) and resistance-based training (22%). The CQUniversity Human Ethics Committee approved this study (H13/06-123).

Table 1. Overview of medical practitioner's views on PA during pregnancy (n = 50)

Comment

While PA during pregnancy is widely recognised as beneficial to the mother and her unborn child, the present findings suggest medical practitioner's in regional areas may lack knowledge pertaining to the type of PA that pregnant women should be participating in when compared to current evidence-based practice guidelines. Specifically, medical practitioner's in this study reported low levels of agreement to statements recommending pregnant women participate in aerobic and resistance-based training, yet showed high agreement to flexibility training. This is despite flexibility training not being recommended during pregnancy due to an already increased laxity to joints and tendons.³

Given the significant role that medical practitioner's can play in helping pregnant women to become more physically active,⁴⁻⁵ it is recommended that national medical education bodies provide appropriate training and professional development opportunities to medical practitioner's regarding the types of PA that pregnant women should be participating in. Future studies are needed to further explore medical practitioner's knowledge of PA during pregnancy in greater detail among a more nationally representative sample.

References

1. Australian Medical Association. AMA Obesity Position Statement. Internet. 2016 [Cited Jan 2017]. Available from: <https://ama.com.au/>
2. Hayman M, Brown W, Ferrar, K et al. Sports Medicine Australia Position Statement: Exercise in Pregnancy and the Postpartum Period. Internet. 2016. [Cited Nov 2015]. Available from: <http://sma.org.au>
3. Hayman M, Short C, Reaburn P. An investigation into the exercise behaviours of regionally based Australian pregnant women. *Journal of Science and Medicine in Sport* 2016; **19**: 664-668.
4. Dobson A, Byles J, Dolja-Gore X et al. Rural, remote and regional differences in women's health: Findings from the Australian longitudinal study on women's health. Australian Government Department of Health and Ageing. 2011: 1-134.
5. Joy E, Mottola M, Chambliss H. Integrating exercise is medicine into care of pregnant women. *Current Sports Medicine Reports* 2013; **12**: 245-247.

Table 1. Overview of medical practitioner's views on PA during pregnancy (n = 50)

	Agree	I don't know	Disagree	Chi square comparison
	n (%)	n (%)	n (%)	
1 *PA during pregnancy is associated with health benefits for the Mother	45 (90)	3 (6)	2 (4)	$p=.075$
2 *PA during pregnancy is associated with health benefits for the Baby/Unborn child	35 (70)	14 (28)	1 (2)	$p<.001$
3 *Overall, most active women should be encouraged to continue their regular PA routine during pregnancy	38 (76)	8 (16)	4 (8)	$p<.001$
4 *Overall, a previously sedentary woman, with an uncomplicated pregnancy, should be encouraged to commence PA during pregnancy	36 (72)	10 (20)	4 (8)	$p<.001$
5 *Overall, healthy pregnant women should be encouraged to participate in resistance-based	11 (22)	19 (38)	20 (40)	$p<.001$

training

6	*Overall, healthy pregnant	24 (48)	12 (24)	14 (28)	$p<.001$
---	----------------------------	---------	---------	---------	----------

women should be encouraged to

participate in an aerobic-training

7	Overall, healthy pregnant women	34 (68)	12 (24)	4 (8)	$p<.001$
---	---------------------------------	---------	---------	-------	----------

should be encouraged to

participate in a flexibility-

training

* denotes 'agree' is the desired response.

Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Hayman, M;Taranto, M;Reaburn, P;Alley, S;Short, CE

Title:

An investigation into regional medical practitioners' knowledge of exercise during pregnancy guidelines

Date:

2017-12-01

Citation:

Hayman, M., Taranto, M., Reaburn, P., Alley, S. & Short, C. E. (2017). An investigation into regional medical practitioners' knowledge of exercise during pregnancy guidelines. AUSTRALIAN JOURNAL OF RURAL HEALTH, 25 (6), pp.382-383. <https://doi.org/10.1111/ajr.12364>.

Persistent Link:

<http://hdl.handle.net/11343/293309>