

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	The HAT TRICK program for improving physical activity, healthy eating and connectedness among overweight, inactive men: Study protocol of a pragmatic feasibility trial
<b>AUTHORS</b>	Caperchione, Cristina; Bottorff, Joan; Oliffe, John; Johnson, Steven; Hunt, Kate; Sharp, Paul; Fitzpatrick, Kayla; Price, Ryley; Goldenberg, S

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Philip Morgan PRC in Physical Activity and Nutrition University of Newcastle Australia
<b>REVIEW RETURNED</b>	10-Apr-2017

<b>GENERAL COMMENTS</b>	<p>Title: The HAT TRICK program for improving physical activity, healthy eating and connectedness among overweight inactive men: Study protocol of a pragmatic feasibility trial</p> <p>Physical inactivity and poor dietary behaviours are highly prevalent in men, yet they represent a sub-group of the population that are clearly difficult to engage in lifestyle programs. Developing appealing programs is both a research and public health priority and therefore the aims of this body of work are important. The program has the potential to bring great health benefits to men and local communities.</p> <p>As this manuscript presents a study protocol for a 'feasibility' trial, I would prefer to see some baseline findings or some results published along with the methods. Additional suggestions for improvement are included below:</p> <p>Abstract</p> <p>L48 reword some of these terms such as 'manly', 'men's self-help practices', 'place and product' as some of these terms are hard to conceptualise for the abstract. Note: wording is fine for paper where explanation/clarification is offered for these terms.</p> <p>L53 clarify why a major 'junior team is the connect point for the intervention. What age is defined as junior? Would these men also be fathers?</p> <p>L59 what is MVPA measured by?</p> <p>L60 important to state and define what you mean by a 'progressive group PA component'</p> <p>L62 Measures – how are all of these measured individually? i.e. what scale?s etc</p> <p>L64 Be clearer about what feasibility metrics you are measuring?</p> <p>Introduction</p> <p>L92-94 cite specific statistics</p> <p>L97-98 cite systematic reviews in the field here and throughout -</p>
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	<p>Pagoto et al , Young et al, L113-120 more background needed for where these studies and settings were at and what they found. In addition, it's important to identify which and how many sports have done this? L121-130 highlight more clearly the novelty, innovation, or new questions given the substantive work already undertaken with men engaged through sports clubs</p> <p>Methods and Analysis L159 couldn't you use estimates from previous similar trials? i.e. football fans in training? L163 provide a rationale for eligibility age range <math>\geq 35</math> years L165 provide a rationale for using pants waist size and not measured L188 when referring to healthy eating, are you also focussing on weight management? If so, important to include this L189 explain how the intervention is tailored for men using 'evidence based research'? further define how the program is tailored and from what evidence? L193 define what is meant by 'masculine look and feel' what does this actually look like? L210 how much time do they spend on the ice? L214 specifically, who would these 'champions' be? L231 provide specific examples of hockey metaphors Discussion L432 elaborate on the specific masculine values and virtues L448 is the term football appropriate rather than soccer? L452 is the terms 'hat trick' specific to hockey? If so, explain how</p>
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<b>REVIEWER</b>	Noel Richardson National Centre for Men's Health Institute of Technology Carlow Ireland
<b>REVIEW RETURNED</b>	11-Apr-2017

<b>GENERAL COMMENTS</b>	<p>Overall Comments The focus of this study is highly relevant within the wider context of public health, men's health and preventive health. The program design is highly innovative, the proposed methodology and recruitment strategies are robust, and the study has much potential to inform gender-sensitive strategies to health promotion targeted at men. The inter-disciplinary nature of the research team ensures that the study is underpinned by a strong theoretical focus (gender/masculinities; public health/health promotion health behavior change). The paper is generally very well written and worthy of publication. I would suggest that the following observations should be considered before the paper is considered for publication.</p> <p>Introduction In light of the strong and independent association between physical fitness and risk of chronic disease, it strikes me as surprising that no consideration seems to have been given to including an objective measure of physical fitness (e.g. time to complete 1 mile). Arguably, changes in physical fitness are more important than changes in PA, sedentariness or weight?</p>
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For the uninitiated [non-sports fan] reader, the name HAT TRICK may be suggestive of an acronym for something else rather than simply a sporting term – perhaps a footnote would clarify? Also, it appears mostly as HAT TRICK but also as HATTRICK (line 387)

Sedentariness is not named in the text p6/7 nor in the Objectives in the next section, but does appear in Table 2

The paper switches tenses making it confusing at times for the reader. For example; (i) p8 states that a variety of recruitment strategies ‘will be used’ – even though recruitment commenced last year; (ii) p9/10 in describing the HAT TRICK intervention, this section moves from present to future and back to present tense; (iii) in the PA measurement section moves from future –‘PA will be assessed’ – to past tense – ‘established cut-off points were used...’

## Methods and Analysis

### Objectives

To avoid confusion, some clarity is needed in distinguishing between the focus and scope of ‘this study’ v ‘this article’. The end of the Introduction refers to the over-arching goal of ‘this study’ (p6), then refers to the objective of ‘this article’ (p7), then the Objectives section reverts to ‘this study’

There appears to be unnecessary repetition between the end of the Introduction and the Objectives section – should the Objectives section not come at the end of Introduction rather than under ‘Methods and Analysis’?

Objective 1 – is it more accurate to say ‘previously’ inactive, overweight men?

### Study design

In light of the relatively small numbers in this phase of the study, was there a reason for phasing recruitment over a nine month period? Phase 2 recruitment presumably took place in spring 2017 rather than ‘winter 2017’ (p8) – or perhaps this is a simple anomaly in how the seasons are named between Canada and Europe?

### Study population, eligibility and recruitment

The decision to have overweight/obesity as part of the inclusion criteria is understandable. However, does this not threaten one of the core objectives of the program (program acceptability) by inadvertently labeling it from the outset as a program solely for overweight/obese men [or in traditionally masculine/jocular language - a ‘fat bloke’s program’]. Given the high prevalence of overweight/obesity among men in most western countries, it is likely that most men would meet these criteria in any case. Also, in terms of future scalability, this could be divisive in terms of recruitment in working against another core masculine value of ‘being in it together’ by separating fans into eligible and ineligible categories. Finally, there is a strong case to be made for all men benefiting from a program such as this, especially in light of the wide-reaching potential benefits over and above weight loss.

The program content (Table 1) is generally excellent – just a few observations

- It is a little disappointing that it is just one session per week. I would question whether this would provide sufficient time for [previously inactive overweight] men to increase their motivation/self-efficacy etc. to conquer and maintain new health behavior(s);

- Whilst men are encouraged to ‘meet outside the program’ [p10],

will any efforts be made to connect them with local/community services and programs that are likely to be critically important in helping them sustain health behavior change?

- The program has obviously been informed by evidence-based principles drawn from gender-sensitive approaches to health promotion - to what extent has the program content been informed by men locally? This is a critically important element of getting buy-in from the target group: See:

- Has consideration been given to program costs/value for money (staff and equipment costs etc.) particularly in the context of future scalability and sustainability? For example, can elements of the program be linked to existing program delivery within the community?

- Is HIT training safe for previously overweight sedentary men?

- Some terminology might need clarification – e.g. ‘apply the 80/20 rule’

The proposal to train ex-participants (‘champions’) to deliver future programs is laudable – however, careful attention needs to be given to their roles, responsibilities and boundaries; presumably as mentors/ambassadors more than fitness instructors/nutritionists etc. The HAT TRICK Playbook seems like an excellent resource (as well as doubling as a data collection tool) – is there scope to develop as an App or online resource?

#### Outcome Measures

Overall, this main section of the paper is extremely thorough and clearly presented. In the context of a key focus of the study - gender-sensitive approaches to engaging men – I have some concerns about the demands being placed on the men as research participants. For example, in relation to self-report measures, there are at least 10 discrete sub-sections/measurement indices comprising by my estimation about 85 questions, to be administered (mostly) over three time points.

#### Table 2

- have blood pressure and heart rate been correctly categorized as ‘anthropometrics’?

- how is heart rate to be used in the study?

#### Discussion

Overall, the program design is innovative and consistent with recent examples elsewhere of gender-sensitive strategies to reach so-called hard to reach men in venues where they already congregate and on their terms. This raises two important questions, not fully addressed in the paper:

- Are such programs intended to be inclusive of all [Canadian] men or targeted at particular cohorts of men – in this case, a cohort which aspires to more traditional masculine values associated with ‘obsession’ (line 452) with what many would regard as a hyper-masculine sport (ice hockey).

- Are such approaches to program delivery open to criticism for adopting a reductionist approach to masculinity (singular), pandering to hegemonic ideals of masculinity and reinforcing gender stereotypes – I refer in particular to language such as ‘...plays to masculine (singular) values and virtues.’ (line 120)... ‘masculine look and feel’ (line 193) etc.

I think that further consideration of these questions is warranted in terms of future scalability of the program. The Discussion hints at recent research ‘beginning to challenge such stereotypes’ (Line 427; but does not elaborate on this); and does acknowledge ‘the great diversity of men within Canada... who may have other interests

	<p>beyond sport' (Line 463). Consideration should at least be given to elaborating on these two points.</p> <p>Typos/Terminology          '...supplement the education' (line 207 p10) – unclear, rephrase          'self-health' – line 424 what does this mean          'disease preventing behaviors' –line 431 – should this be preventive health behaviors?          Line 442 - recognize no 's'          Line 446 Fans with an 's'</p>
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<b>REVIEWER</b>	Larkin Strong University of Texas MD Anderson Cancer Center
<b>REVIEW RETURNED</b>	20-Apr-2017

<b>GENERAL COMMENTS</b>	<p>This manuscript describes the study design of HAT TRICK, a health promotion program focused on physical activity and healthy eating for inactive, overweight men residing in the Okanagan region of British Columbia, Canada. The rationale for this program is based on men's reluctance to participate in health promotion programs focused on healthy lifestyles and weight management. To address this issue, the HAT TRICK program was designed specifically for men and builds upon a strong collaboration with a local sports team. The study design is a pre-post test design to evaluate the feasibility and acceptability of the HAT TRICK program. A total of 60 participants will be enrolled in the study, and data collection will occur at baseline, and 12 weeks and 9 months after baseline. This is generally a well-written manuscript concerning a novel intervention approach. However, the manuscript would be strengthened by providing additional information about the development of the intervention, focusing the primary outcome measures, and describing plans for addressing intervention fidelity, as outlined below.</p> <p>Additional information about the development of the intervention is needed. The authors state that it was informed by theoretical underpinnings but do not mention any specific theories. It would also be helpful if the authors could link specific components to specific theoretical constructs. In addition, the program is described as being tailored for men, and that "gender-related factors influencing men's health behaviors and health promotion were considered throughout the design of the program" (page 9). What were these "gender-related factors"? It would be helpful if the authors could clearly articulate the adaptations that were specifically designed to appeal to men. Were these adaptations informed by any formative work conducted with the target population? If not, how did the authors feel confident that their adaptations would appeal to men?</p> <p>It's not clear why there are so many outcome measures? Outcome measures seem to include most of the variables assessed save for demographics. It does not seem reasonable for an intervention to attempt to effect change in all of these. Please specify those that are primary outcomes (e.g., diet, physical activity).</p> <p>Although the authors describe ways to assess program feasibility and acceptability, they do not address the issue of intervention fidelity. How will this be ensured and assessed?</p>
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	<p>The description of the measures is lengthy and could be condensed by including some of this information in a table.</p> <p>Recruitment strategies are largely passive in that they rely on potential participants to contact study staff upon, for example, seeing a poster, social media post, or television broadcast. Given the focus on men being a challenging population to reach for lifestyle interventions, do the authors have information on whether these strategies have worked in the past or with other studies?</p> <p>Additional comments</p> <ul style="list-style-type: none"> <li>- Eligibility criteria include a BMI<math>\geq</math>25. Is this based on self-reported or measured height and weight? Similarly, for physical activity, are the eligibility criteria based on self-reported or actigraph-measured physical activity?</li> <li>- Page 12, lines 216-222 – It's not clear if some aspects of the intervention are described as they will be implemented in the current pilot or as plans for a future trial. Please clarify</li> </ul>
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### VERSION 1 – AUTHOR RESPONSE

#### Reviewer 1

Comments	Responses
Since the manuscript presents a study protocol for a 'feasibility' trial, I would prefer to see some baseline findings or some results published along with the methods	As per the journal guidelines it is recommended that protocols be submitted to BMJ Open in the planning or ongoing stage. At present this study is still collecting baseline data.
<b>Abstract</b>	
<p>L48: reword some of these terms such as 'manly', 'men's self-help practices', 'place and product' as some of these terms are hard to conceptualise for the abstract.</p> <p>Note: wording is fine for paper where explanation/clarification is offered for these terms.</p>	We have adjusted these sentences for greater clarity. Please see abstract, L48-51.
L53: Clarify why a major 'junior team is the connect point for the intervention. What age is defined as junior? Would these men also be fathers?	The team was chosen as they represent the second highest level of competition in Western Canada (level below the National Hockey League-NHL). The team boasts one of the most loyal fan bases in the Western Hockey League (WHL) with nearly 4,000 thousand season ticket holders. The word junior represents a level below the professional NHL and not necessarily age. The players range in age from 16 to 20 years. It is not a requirement for players or participants to be fathers, the connection lies with the men's interest in hockey.
L59: What is MVPA measured by?	All eligibility criteria, including the requirement to accumulate <150mins of moderate to vigorous

	physical activity a week, are based on self-report. Research staff discussed the criteria with each participant to ensure a full understanding of the requirements. This occurred by telephone during the recruitment phase and prior to the start of the program.
L60: Important to state and define what you mean by a 'progressive group PA component'	Provided that the limit for the abstract is 300 words, it is difficult to fully detail what is meant by a 'progressive group PA component'. However we have added a brief description to help clarify (L61). Further details are found within the text.
L62: Measures – how are all of these measured individually? i.e. what scale's etc.	Provided that the limit for the abstract is 300 words, it is difficult to fully detail the names of each measure at this stage while also providing other important information about the study. Detailed descriptions of each measure can be found within the text, pgs 14-21, and in Table 2.
L64: Be clearer about what feasibility metrics you are measuring?	These have been edited for greater clarity, L66-67.
<b>Introduction</b>	
L92-94: Cite specific statistics	We have included a specific statistic and an additional reference (Colley et al. 2011) to further support this point. Pg 5 L92-93.
L97-98: Cite systematic reviews in the field in the introduction and throughout- Pagoto et al, Young et al	Both reviews have been added to the introduction and throughout were applicable.
L113-120: More background needed for where these studies and settings were at and what they found. In addition, it's important to identify which and how many sports have done this?	This strategy has been widely used in soccer clubs across Europe and, more recently, been adapted to other sports (i.e., Rugby). Additional information regarding these studies has been added (pg 6, L121-126).
L121-130: Highlight more clearly the novelty, innovation, or new questions given the substantive work already undertaken with men engaged through sports clubs	Other similar programs, such as FFIT, EuroFIT and RUFIT were specifically interested in weight loss, however we were interested in understanding particular behaviour (e.g., PA and healthy eating) which may result in physical (e.g., weight loss/management) and mental (e.g., depression) . Although weight loss/management is a secondary outcome of HAT TRICK it is not the main outcome. Furthermore, although the model of the program is similar, the hockey setting is very different from the soccer setting.
L159: Couldn't you use estimates from previous similar trials? i.e. football fans in training?	Although this program follows a similar model to FFIT, we felt that the context (hockey related theme) and sample population (Canadian men)

	would differ and thus were interested in identifying particular parameters specific to the male population with in Canada. Also, we chose to increase our age range to gain further insight about recruitment (as detailed in the next comment).
L163: Provide a rationale for eligibility age range ≥35years	We chose to use the range of ≥35 years to be consistent with other similar studies, such as the Football Fans in Training (FFIT) (35-65 yrs) and EuroFit (30-65 yrs) program delivered to men in the UK and Europe. Also, given that this is a feasibility study we chose not to limit the age range as we are interested in who we recruit. Specifically, would a program like this appeal to middle age men alone? Would it also appeal to older age men (65+yrs)?
L165: Provide a rationale for using pants waist size and not measured	Pant waist size provides a more tangible measurement for many men. While many men do not know their waist circumference (measures at the iliac crest), a common indicator of visceral fat and risk of disease, pant waist size offers a more generic reference for waist size. Although not a direct indication of waist circumference, this technique has been previously utilized (FFIT). A pant size >38"when taken with consideration of BMI, suggests a higher risk for chronic disease.
L188: When referring to healthy eating, are you also focussing on weight management? If so, important to include this	The main focus of HAT TRICK is to increase physical activity, improve dietary behaviors and increase connectedness amongst the men who participate. Throughout the education portion of the program we discuss how these behaviors could improve both physical (e.g., weight management/loss) and mental health (e.g. depression) however the focus is about improving these specific behaviours, with the intention that by doing so, it will subsequently improve outcomes such as weight loss.
L189: Explain how the intervention is tailored for men using 'evidence based research'? further define how the program is tailored and from what evidence?	We have added additional information and references about how the program was tailored for men. Pg 10, L199-214.
L193: Define what is meant by 'masculine look and feel' what does this actually look like?	Additional information has been provided about exactly what considerations were made, as well as examples of each. Pg 10, L211-214.
L210: how much time do they spend on the ice?	There is no time spent on the ice. It is not a requirement of the program to be able to skate or play hockey. The exercises that take place occur



	around the stadium, including the team gym, concession loop, and spectator stands. We have included a statement concerning this, Pg 8, L170-171.
L214: Specifically, who would these 'champions' be?	Champions may include fitness professionals with relevant certifications (e.g., CSEP CPT, BCRPA Personal Trainer) or other accredited local health professionals (e.g., nutrition specialists, physical therapists). We have clarified this further, pg 13, L236-238.
L231: Provide specific examples of hockey metaphors	The title of each week listed in Table 1 has a hockey-related theme. Each theme is described as it relates to the healthy behaviours detailed within the chapter. Where appropriate hockey metaphors are included throughout the text. For example, "recruiting a deep bench" refers to social support and "keep your stick on the ice" relates to relapse prevention. These have been added to Table 1 where appropriate.
<b>Discussion</b>	
L432: Elaborate on the specific masculine values and virtues (in the discussion)	We have added further clarification to this section in the discussion. Pg 24, L447-450.
L448: Is the term football appropriate rather than soccer?	We have edited this. Where appropriate, football is referred to as soccer. Pg 25, L467.
L452: Is the terms 'hat trick' specific to hockey? If so, explain how	The rise in popularity of the term HAT TRICK has its origins in hockey. It represents the great achievement of a single player scoring 3 goals within one game. The lore behind the term is fully explained in the HAT TRICK Playbook. That being said, it is not strictly used in hockey and in fact may be transferable to other sports. For instance, in North America soccer players who score 3 goals in one game also claim that they got a HAT TRICK or grid-iron football players who score 3 touchdowns in one goa; could claim a HAT TRICK. A brief explanation of HAT TRICK has been included in the text. Pg 9, L194-198.

## Reviewer 2

Comments	Responses
<b>Introduction</b>	
In light of the strong and independent association between physical fitness and risk of chronic disease, it strikes me as surprising that no	For the purposes of this feasibility trial, our objective was to examine changes in PA not physical fitness. Given the strong association

<p>consideration seems to have been given to including an objective measure of physical fitness (e.g. time to complete 1 mile). Arguably, changes in physical fitness are more important than changes in PA, sedentariness or weight?</p>	<p>between physical activity, sedentary behaviour, and physical fitness, as well as the substantial evidence demonstrating the benefits of increased PA, reduced sedentariness, and weight loss, we feel this is more than sufficient for a pilot-feasibility study and that the current measures will give ample exploratory value to the current study. Physical fitness would certainly be an interesting measure and may be considered in future trails.</p>
<p>For the uninitiated [non-sports fan] reader, the name HAT TRICK may be suggestive of an acronym for something else rather than simply a sporting term – perhaps a footnote would clarify?</p> <p>Also, it appears mostly as HAT TRICK but also as HATTRICK (line 387)</p>	<p>HAT TRICK is not being used as an acronym, but rather it reflects a hockey term associated with scoring 3 goals. Given the hockey theme we decided on HAT TRICK to represent the 3 goals of the program: 1) increasing physical activity, 2) improving diet, 3) supporting social connectedness. The meaning of HAT TRICK has been further detailed on pg 9, L194-198.</p> <p>Thank you for bringing this to our attention. Corrections have been made, adjusting HATTRICK to HAT TRICK (L406 and 410).</p>
<p>Sedentariness is not named in the text p6/7 nor in the Objectives in the next section, but does appear in Table 2</p>	<p>Thank you for bringing this to our attention, we have now included this in the text within the abstract and on pg 7, L145.</p>
<p>The paper switches tenses making it confusing at times for the reader. For example; (i) p8 states that a variety of recruitment strategies ‘will be used’ – even though recruitment commenced last year; (ii) p9/10 in describing the HAT TRICK intervention, this section moves from present to future and back to present tense; (iii) in the PA measurement section moves from future – ‘PA will be assessed’ – to past tense – ‘established cut-off points were used...’</p>	<p>The confusion arises as we are currently at a point when two of the three groups have been completed and measures collected while a third group is yet to start. The tense has been changed to past-tense throughout the methods in an effort to provide more clarity. The highlighted examples on pages 8-10, as well as others throughout the measures section has been changed to past tense.</p>
<p><b>Methods and Analysis</b></p>	
<p>To avoid confusion, some clarity is needed in distinguishing between the focus and scope of ‘this study’ v ‘this article’. The end of the Introduction refers to the over-arching goal of ‘this study’ (p6), then refers to the objective of ‘this article’ (p7), then the Objectives section reverts to ‘this study’.</p>	<p>We have edited this section for greater clarification. We have removed the sentence at the end of the introduction concerning the objectives to reduce repetition. The paper specifically outlines the intervention protocol and methodology used to assess feasibility and estimate changes in outcome measures. Please see pg 7, L134-137.</p>

<p>There appears to be unnecessary repetition between the end of the Introduction and the Objectives section – should the Objectives section not come at the end of Introduction rather than under ‘Methods and Analysis’?</p>	<p>We have removed the sentence at the end of the introduction concerning the objectives to reduce repetition. The objectives are now clearly outlined in the methods section alone, immediately following the introduction. Pg 7, line 142-149.</p>
<p>Objective 1 – is it more accurate to say ‘previously’ inactive, overweight men?</p>	<p>We feel that the way the objective is currently presented is accurate.</p>
<p>In light of the relatively small numbers in this phase of the study, was there a reason for phasing recruitment over a nine month period?</p>	<p>Recruitment occurred over a nine month period to best accommodate the hockey schedule and use of the facility. Based on resources and project funding we were able to run 3 groups, which occurred at separate time periods to reduce researcher/facilitator burden (approximately one group every 12 weeks). Recruitment occurred before each 12 week session. Program delivery occurred in Jan 2017 (group 1) and March 2017 (group 2), and then the third program delivery will be Sept 2017.</p>
<p>Phase 2 recruitment presumably took place in spring 2017 rather than ‘winter 2017’ (p8) – or perhaps this is a simple anomaly in how the seasons are named between Canada and Europe?</p>	<p>Phase 1 recruitment occurred in November 2016, phase 2 in January 2017, and phase 3 will occur in August 2017. To alleviate any confusion around seasonality, the seasons have been replaced with months. Pg 8, L154-158.</p>
<p>-The decision to have overweight/obesity as part of the inclusion criteria is understandable. However, does this not threaten one of the core objectives of the program (program acceptability) by inadvertently labeling it from the outset as a program solely for overweight/obese men [or in traditionally masculine/jocular language - a ‘fat bloke’s program’]. Given the high prevalence of overweight/obesity among men in most western countries, it is likely that most men would meet these criteria in any case.</p> <p>-Also, in terms of future scalability, this could be divisive in terms of recruitment in working against another core masculine value of ‘being in it together’ by separating fans into eligible and ineligible categories.</p> <p>-Finally, there is a strong case to be made for all men benefiting from a program such as this, especially in light of the wide-reaching potential benefits over and above weight loss.</p>	<p>With increasing prevalence of overweight/obesity effective, acceptable and feasible programs are needed to support this group in achieving healthy weights. Demonstrating program acceptability with overweight /obese men would be an important contribution – especially given that the program provides a space for men to normalise practices related to healthful living, and mobilise men in regaining fitness and valued masculine identities and activities.</p> <p>-The fan base for hockey is diverse and includes boys and girls, and women and men of all ages. It is unlikely the HAT TRICK program will be divisive.</p> <p>-We do agree that this program would benefit all men, however, our goal was to reach those in</p>

	<p>most need of such a program based on increased risk factors for chronic disease (i.e., inactive, overweight men). Program delivery would vary considerably for those considered “healthy” vs those consider at greater risk of disease. Due to resource and funding restrictions we did not have the capacity to address these variations at this point, however given the transferable nature of the program this is something to consider for the future.</p>
<p>The program content (Table 1) is generally excellent – just a few observations</p> <p>-It is a little disappointing that it is just one session per week. I would question whether this would provide sufficient time for [previously inactive overweight] men to increase their motivation/self-efficacy etc. to conquer and maintain new health behavior(s);</p> <p>-Whilst men are encouraged to ‘meet outside the program’ [p10], will any efforts be made to connect them with local/community services and programs that are likely to be critically important in helping them sustain health behavior change?</p>	<p>-HAT TRICK follows the same model as the FFIT program (Wyke et al, 2015) delivered in Scotland. They also met once a week over a 12 week period. Findings from the FFIT program showed significant positive changes in weight loss, blood pressure, physical activity, dietary habits, self-esteem and physical quality of life. Similar results (including increase in self-efficacy and confidence) have been shown with other programs which included one session per week over a 12 week period. One recent example is the Men on the Move Program (Griffith et al., 2014). In addition, the literature review conducted by Botorff et al (2015) provides further support for this delivery model (1x week for 12 weeks), highlighting a number of significant positive changes in physical and psycho-social factors, across a number of studies. Moreover, we expected that the results of our feasibility study will provide further indication of whether one session per week is likely to be sufficient for this segment of the population.</p> <p>-during the face to face sessions the men are provided with details about facilities and programs that are currently accessible/available in the community and encouraged to try them out. In addition, guest presenters were all from the community and thus participants were provided with specific information (from the guest speakers) about their program, facility etc. For instance, a local fitness trainer from a near-by gym led one of the boot camp like sessions for the participants. During this session participants were given more information about this gym such as the different types of classes/equipment available, drop in fees, membership fees, etc.</p>

-The program has obviously been informed by evidence-based principles drawn from gender-sensitive approaches to health promotion - to what extent has the program content been informed by men locally? This is a critically important element of getting buy-in from the target group:

-Has consideration been given to program costs/value for money (staff and equipment costs etc.) particularly in the context of future scalability and sustainability? For example, can elements of the program be linked to existing program delivery within the community?

-the program was developed based on theoretical evidence as well as focus group consultations (undertaken by members of the research team) with men locally and men elsewhere. We have added a statement about this in the text as well as references (i.e., Oliffe et al 2016 & Caperchione et al., 2012). Pg 10, L203-204.

-a specific cost analysis is not currently being undertaken during this feasibility-pilot test as the main objective was to understand if the actual intervention (and its components) would appeal to men and engage men in healthy lifestyle behaviours. However, from a project management perspective we have been keeping track of the costs associated with program delivery to help inform future implementation. We also intend to undertake a more formal cost analysis as we expand the program.

Also, the strong support for hockey in Canada and formal organizations that support hockey at professional and amateur levels in both rural and urban contexts provides the potential for scalability and sustainability. This is an important consideration as we move forward with HAT TRICK.

-thank you for bringing this to our attention, the idea is that participants would engage in more vigorous activity (relative to ones capacity) at this point in the program, this has been corrected within the table to refer to vigorous activity rather than HIT.

-we have included a brief description of the '80/20 rule' in Table 1 and have also briefly described other terminology such as 'keep your stick on the ice', 'recruit a deep bench', 'drink wisely' and 'brocery shopping'.

<p>-Is HIT training safe for previously overweight sedentary men?</p> <p>-Some terminology might need clarification – e.g. ‘apply the 80/20 rule’</p>	
<p>The proposal to train ex-participants (‘champions’) to deliver future programs is laudable – however, careful attention needs to be given to their roles, responsibilities and boundaries; presumably as mentors/ambassadors more than fitness instructors/nutritionists etc.</p>	<p>This is an excellent comment and one that the research team will have to consider when it comes time to expand the program. As the program is delivered by two facilitators, perhaps a viable approach may be to pair one ex-participant with an individual that holds more formal education/experience in the health field.</p>
<p>The HAT TRICK Playbook seems like an excellent resource (as well as doubling as a data collection tool) – is there scope to develop as an App or online resource?</p>	<p>Within the current study, it is not within our means to develop an App or online resource.</p> <p>As we gain feedback from participants and grow the program, it is certainly our hope to develop an online resource in the future.</p>
<p><b>Outcome Measures</b></p>	
<p>Overall, this main section of the paper is extremely thorough and clearly presented. In the context of a key focus of the study - gender-sensitive approaches to engaging men – I have some concerns about the demands being placed on the men as research participants. For example, in relation to self-report measures, there are at least 10 discrete sub-sections/measurement indices comprising by my estimation about 85 questions, to be administered (mostly) over three time points.</p>	<p>Thank you for the comment. Similar to the FFIT program, baseline measures are collected at Week 0, a session specific to data collection, providing participants with more information about the program, and allowing participants to meet other men in their group. It is estimated that the questionnaire takes approximately 20-30 minutes. Physical measures occur during the same timeframe. The entire sessions lasts approximately 1.5 hours. Follow-up measures (12-weeks and 9-months) last approximately 1 hour. Participant are well informed of the time commitments and exactly what will happen during these times prior to the start of the program. Additionally, participants are provided with</p>

	healthy snacks during the follow-up sessions.
<p>Table 2</p> <p>-have blood pressure and heart rate been correctly categorized as 'anthropometrics'?</p> <p>-how is heart rate to be used in the study?</p>	<p>-Thank you for this observation, we have adjusted table 2 and placed these variables (BP, HR) under physiological measures.</p> <p>-We measured resting heart rate because it gives an indication of the autonomic control of the heart, and with a successful physical activity intervention, heart rate should decrease showing an important positive cardiovascular adaption. Heart rates were also monitored (with participant's Fitbits) during the program to ensure that participants were exercising at the recommended and appropriate intensities.</p>
<b>Discussion</b>	
<p>Overall, the program design is innovative and consistent with recent examples elsewhere of gender-sensitive strategies to reach so-called hard to reach men in venues where they already congregate and on their terms. This raises two important questions, not fully addressed in the paper:</p> <p>-Are such programs intended to be inclusive of all [Canadian] men or targeted at particular cohorts of men – in this case, a cohort which aspires to more traditional masculine values associated with 'obsession' (line 452) with what many would regard as a hyper-masculine sport (ice hockey).</p>	<p>-Thank you for the positive comments.</p> <p>-HAT TRICK in its current form has been developed to appeal to Canadian men who are hockey fans (Canada's most famous sporting past time) however we do acknowledge that there is great variability of men in Canada and the hockey context may not be of interest to all Canadian men (please see pg 25, L481-486). The strength of HAT TRICK is that the model itself could be transferred to appeal to other interests depending on the particular sub-sample of men. We also suggest that prior to refine HAT TRICK for these other sub-samples formative evaluation should be undertaken with specific sub-samples to fully understand their particular interests and values. (pg 25, L481-486).</p> <p>-Thank you for pointing this out. We recognize</p>

<p>-Are such approaches to program delivery open to criticism for adopting a reductionist approach to masculinity (singular), pandering to hegemonic ideals of masculinity and reinforcing gender stereotypes – I refer in particular to language such as ‘...plays to masculine (singular) values and virtues.’ (line 120)... ‘masculine look and feel’ (line 193) etc. I think that further consideration of these questions is warranted in terms of future scalability of the program. The Discussion hints at recent research ‘beginning to challenge such stereotypes’ (Line 427; but does not elaborate on this); and does acknowledge ‘the great diversity of men within Canada... who may have other interests beyond sport’ (Line 463). Consideration should at least be given to elaborating on these two points.</p>	<p>the diversity of masculinities and have made revisions to remove reference to masculine (singular) values and virtues. Although the program takes advantage of hockey as Canada’s national sport (and often touted as a symbol of what it means to be Canadian), the program does not require men to actually play hockey or be interested in hockey per se. Nevertheless, by using a hockey theme the program is easily recognized in communities as a program designed for Canadians – a program (like hockey) that is open to and accessible to everyone. In this way, the HAT TRICK program has the potential to appeal to many different types of men. Despite this, we also recognize that the program may not appeal to all men. Nevertheless, if found successful, this program is likely to provide a useful model for designing tailored programs for other groups of men.</p>
<p>Typos/Terminology</p> <p>-‘...supplement the education’ (line 207 p10) – unclear</p> <p>-rephrase ‘self-health’</p> <p>-line 424 what does this mean ‘disease preventing behaviors’ line 431 – should this be preventive health behaviors?</p> <p>-Line 442 - recognize no ‘s’</p> <p>-Line 446 Fans with an ‘s’</p>	<p>-Pg 11, L228: ‘supplement the education’ has been removed from the sentence.</p> <p>-Pg 23, L439: this has been rephrased</p> <p>-Pg 24, L446: ‘disease preventing behaviors’ has been changed to ‘healthy lifestyle behaviors’.</p> <p>-Pg 24, L460: The ‘s’ has been removed from recognize</p> <p>-Pg 25, L464: An ‘s’ has been added to Fans.</p>

**Reviewer 3**

Comments	Responses
<p>Additional information about the development of the intervention is needed. The authors state that it was informed by theoretical underpinnings but do not mention any specific theories. It would also be helpful if the authors could link specific components to specific theoretical constructs.</p>	<p>We have now included specific information concerning the evidence based research and theoretical underpinnings utilised in the development of the HAT TRICK program. The program was also informed by focus group consultations previously conducted by the</p>



	<p>research team. This statement has also been added. Please see pg 10, L198-203.</p>
<p>In addition, the program is described as being tailored for men, and that “gender-related factors influencing men’s health behaviors and health promotion were considered throughout the design of the program” (page 9). What were these “gender-related factors”? It would be helpful if the authors could clearly articulate the adaptations that were specifically designed to appeal to men. Were these adaptations informed by any formative work conducted with the target population? If not, how did the authors feel confident that their adaptations would appeal to men?</p>	<p>-We have expanded this section to explain more clearly the gender-related factors influencing men’s health behaviour and the design of the program. Examples of design elements are provided. Our team have extensive experience in designing and implementing successful health promotion programs for men. This experience supports our confidence that the adaptations we made will appeal to men. Also, we have indicated that the program was also informed by focus group consultations previously conducted by the research team. This statement has also been added. Please see pg 10, L199-214.</p>
<p>It’s not clear why there are so many outcome measures? Outcome measures seem to include most of the variables assessed save for demographics. It does not seem reasonable for an intervention to attempt to effect change in all of these. Please specify those that are primary outcomes (e.g., diet, physical activity).</p>	<p>The primary objective of this study is to assess for feasibility and with a secondary objective of estimating changes in all of the other outcome measures. With regards to our secondary objective (estimate changes in all of the other outcome measures), our primary outcome measure is an increase in physical activity and improved nutrition behaviours. Changes in these behaviours may have effects on the secondary outcomes of sleep, depression, health-related quality of life, etc.</p>
<p>Although the authors describe ways to assess program feasibility and acceptability, they do not address the issue of intervention fidelity. How will this be ensured and assessed?</p>	<p>Attendance logs will be completed by facilitators at each session to determine intervention fidelity. Additionally, questions of adherence will be included in the program evaluation questionnaire at 12-weeks. For example, participants will be asked to report on how much/often they used certain components of the program (e.g., Fitbit, Playbook, weekly challenges). Lastly, program facilitators engage in de-brief sessions after each HAT TRICK session to ensure that the intervention was delivered as intended and discuss any necessary changes or adjustments that were made or should be made.</p>
<p>The description of the measures is lengthy and could be condensed by including some of this information in a table.</p>	<p>Thank you for this comment. We did consider only presenting these in a table but felt that for the purpose of this type of paper (a protocol paper) it was important to provide specific detail concerning the measure itself, the protocol used during data collection and the scoring/analysis protocol used when organising and analysing the data. For greater reader ease we have included a summary table of the measures (Table 2, pg 15).</p>

<p>Recruitment strategies are largely passive in that they rely on potential participants to contact study staff upon, for example, seeing a poster, social media post, or television broadcast. Given the focus on men being a challenging population to reach for lifestyle interventions, do the authors have information on whether these strategies have worked in the past or with other studies?</p>	<p>We are unaware of a study which has evaluated the benefit of various recruitment strategies among this population. Interestingly, we have had no difficulties recruiting men for the initial groups in this trial. In fact, the first HAT TRICK group of 20 men was filled within 1-week of the initial media release. This lends to the notion that men may in fact not be hard to reach but rather we (those in health promotion) have not been reaching them correctly. Furthermore, these strategies have been successfully utilised in other research undertaken by the research, specifically to recruit men. This includes the ManUp project and the POWERPLAY program.</p>
<p><b>Additional Comments</b></p>	
<p>-Eligibility criteria include a BMI<math>\geq</math>25. Is this based on self-reported or measured height and weight? Similarly, for physical activity, are the eligibility criteria based on self-reported or actigraph-measured physical activity?</p>	<p>All eligibility criteria are based on self-reported measures. Research staff discussed the criteria with each participant to ensure a full understanding of the requirements. With regards to BMI, a calculator was provided on the <a href="http://hatrick.ok.ubc.ca">hatrick.ok.ubc.ca</a> website for potential participants to use. Alternatively, potential participants had the opportunity to discuss this with a member of the research team to determine their BMI. With regards to physical activity, the research staff clarified what moderate to vigorous constituted in terms of activity levels. A research team member discussed this with each interested participant over the phone.</p>
<p>-Page 12, lines 216-222 – It's not clear if some aspects of the intervention are described as they will be implemented in the current pilot or as plans for a future trial. Please clarify.</p>	<p>It is our intention to try to implement all of the examples provided within the current pilot-feasibility study. The inclusion of these guest speakers/presenters will be based on our ability to identify appropriate individuals, the individuals availability, as well as a number of other real-world factors.</p>

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Philip Morgan PRC for Physical Activity and Nutrition University of Newcastle Australia
<b>REVIEW RETURNED</b>	28-May-2017

<b>GENERAL COMMENTS</b>	The authors have adequately addressed all of my concerns
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<b>REVIEWER</b>	Noel Richardson National Centre for Men's Health Institute of Technology Carlow Ireland
<b>REVIEW RETURNED</b>	09-Jun-2017

<b>GENERAL COMMENTS</b>	I wish to confirm that I have reviewed this revised manuscript and am happy to recommend it for publication. In relation to my my previous comments, there are two points - programme acceptability (p93 lines 21-32) and using overweight as a grounds for selection being potentially diviisve (p93 lines 35-39) - that I do not think have been addressed by the authors' feedback. I am happy to agree to differ on this - my comments were offered based on experience of this very issue!
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