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# **Younger British Men's Understandings of Prostate Cancer: A Qualitative Study**

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RUNNING HEAD: British Men's Perceptions of Health and Prostate Cancer

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## **Abstract.**

The purpose of this study was to explore young British men's understandings of prostate health and cancer of the prostate. Sixteen white-British men between 31-50 years of age took part in interviews face-to-face or through computer-mediated

communication. Thematic analysis broadly informed by grounded theory identified two key themes; 'limited knowledge about the prostate' and 'early detection & unpleasant procedures'. Accounts are discussed with reference to implications for improving men's understandings of prostate cancer, and likelihood of self-referral for prostate screening where necessary.

**Keywords:** men's health, prostate cancer, screening, thematic analysis, self-referral

### **Younger British Men's Understandings of Prostate Cancer: A Qualitative Study**

Symptoms of prostate cancer are intrusive, but it is well known that men often delay seeking help. Each year more than forty thousand men in the UK are diagnosed with prostate cancer, and more than ten thousand die from this condition (Cancer Research Campaign, 2015). Although incidence of prostate cancer is relatively low in men under 50 years (Prostate Cancer UK, 2015), around 360 men under 50 are diagnosed with prostate cancer each year in the UK (Cancer Research UK, 2015) and around 10% of diagnoses are in men aged 55 or below in the USA (Salinas, Tsodikov, Ishak-Howard, and Cooney, 2014). Men aged under 50 with advanced prostate cancers have a particularly poor prognosis compared with older men and are more at risk of dying earlier than older men with similar forms of cancer (Cancer Research UK, 2015). Treatment is more effective in the early stages of the disease (Salinas, Tsodikov, Ishak-Howard, and Cooney, 2014) so early detection is crucial in determining survival in younger men. This study investigates factors that influence young men's decisions to seek medical help.

Studies of referral with symptoms of prostate cancer have tended to focus on men over 50 years of age. For instance, Hale, Grogan and Willott (2007) interviewed UK men

aged 51-75 with prostate disease. Men's referral behaviours were influenced by a need to live up to traditional images of masculinity, and fears about illness and treatment were major determinants of their delay in seeking help. Some studies have accessed younger men as part of the sample. Zully and Buki (2011) interviewed ten Latino men aged 45 years of age and older who had no history of prostate cancer. They found that men were very concerned about rectal examinations and would avoid referral with prostate problems because of fear of this procedure. Perceptions of masculinity and sexuality influenced how they understood prostate cancer screening and influenced their decisions around getting screened. Conde et al (2011) ran focus groups with 20 men aged 40 and over (mean age 56 years) with no history of prostate disease. They found that key barriers to prostate screening were lack of awareness, reticence about seeking healthcare when feeling well, and fear of cancer diagnosis. Fyffe et al. (2008) ran focus groups with 24 men aged 22–85 years (mean age 53 years) and found that fear and past experiences with healthcare were key motivators for preventative screening. No studies to date focus exclusively on younger men.

Health-related factors that worry younger men differ from those affecting older men (Jeffries & Grogan, 2012), so it is important to interview younger men about prostate cancer and factors that might inhibit referral. It has been established in other studies that young men tend to utilise primary healthcare services reluctantly (Galdas, 2009). Jeffries and Grogan (2012) found that several of the young men in their UK study felt that men who presented themselves at healthcare services were 'weak'. Participants subscribed to a hegemonic masculinity that constructed men as strong, stoical and reluctant to seek help. These factors may act as disincentives to refer with symptoms of all kinds of conditions in young men, including prostate cancer.

### **The Current Study**

This study set out to investigate young British men's understandings of prostate health and prostate cancer. Using in-depth interviews, to allow flexibility and to enable men to express fully their experiences and understandings, we set out to investigate men's understandings of prostate cancer and prostate health, focusing on men with no history of prostate cancer following Conde et al. (2011). Our key research questions were:

1. How do young men understand prostate cancer?
2. What kinds of factors (if any) might inhibit referral to primary care with prostate-related symptoms?

## **Method**

### **Design**

A qualitative approach was adopted to enable an understanding of men's perceptions of prostate health and referral for screening. One participant was interviewed in his own home, one by voice-over internet protocol (VoIP; Karapantazis and Pavlidou, 2009), and the remaining fourteen completed email questionnaires (Murray and Sixsmith, 2002), thus providing multiple data sources (Murray and Chamberlain, 1999). According to Hewson (2010) online qualitative interviews are beneficial to use for primary internet-mediated research. Email has been found to be a suitable, flexible and useful method for delivering semi-structured interview schedules, which provides added accessibility to participants (Murray and Sixsmith, 2002). In order to get a picture of how healthy these men felt, they also assigned themselves a score on self-perceived health and provided a narrative justification for this.

### **Participants and Recruitment**

Eligibility criteria excluded persons under 30 and over 55 years. This age range was chosen to represent fully the at-risk population; it is extremely rare for young men under 30 years to be diagnosed with prostate cancer, and statistics on prostate cancer in younger men in the UK use 55 as the upper limit (Cancer Research UK, 2015). Those who had a history of prostate cancer were also excluded, following Conde et al. (2011). Sixteen men were recruited, all white-British and with predominately middle-class occupations and all were proficient in English. Eight were married, five were co-habiting (of these, two lived with male partners), and the remaining three lived alone. (See Table 1 for participant demographic information). Guest and colleagues (2006) suggest that saturation of themes usually happens between six and twelve interviews, so it was initially decided to recruit a minimum of twelve participants for the present study, and the final sample was made up of sixteen men who fit our inclusion criteria. Initially purposive sampling was used. Ten participants responded by way of email to the second author in answer to a brief advertisement on a social network site. The advertisement was intentionally selective requesting men within the age range and willing to answer a number of questions anonymously. One man helped to identify other potential participants, and a further six men were recruited by utilizing this method of snowball sampling (Patton, 2002). All men were contacted by the second author. The first man contacted agreed to the initial interview, which was conducted face-to-face, this then informed the email questions.

### **Apparatus and Materials**

**Subjective health rating scale.** A scale where 0 indicated 'poor health' and 10 represented 'good health - the best health could be' was used to enable men to describe their current health status and to provide contextual information on their perceived health. Men were also asked to produce an explanatory narrative to justify their score (Table 1).

**Olympus Digital Wave Player.** This was used to record the face-to-face interview.

**Personal computer.** The PC had VoIP hardware with high-speed internet connection, microphone and appropriate residential user software installed for voice-over internet protocol interview (Karapantazis and Pavlidou, 2009). Voice Transcription Software allowed the interview to be transcribed using automatic speech recognition to enable access to the saved transcript for later analysis.

**Open-ended questions.** Sixteen open-ended questions were developed based on the responses from the initial face-to-face interview. This initial interview was used to test out the viability and coverage of a set of initial questions encompassing understandings of prostate cancer and factors that might inhibit referral to primary care with prostate-related symptoms. The final set of sixteen questions provided a more comprehensive list to be used in the e-mail questionnaire. Questions focussed on men's perceptions of their own health, knowledge and functional understanding of the prostate, and awareness of prostate cancer. Sample questions included the following:

1. If you think of a healthy man that you may know, how would you describe him?  
What is it that makes you think he is healthy? What things would he tell you about himself?
2. If I were to say the words *prostate cancer* to you what would be the instant thoughts going through your mind?
3. Hypothetically, if a letter came in the post for an invite for screening would you attend?

## **Data Collection**

In planning for, and carrying out this study, the British Psychological Society's Code of Ethics and Conduct (2009) was followed and approval for the study was obtained from the University Ethics Panel. All participants were informed that direct quotes from their responses may be used, but they would not be identifiable in the

final report. All participants were asked to provide a pseudonym for identification of quotes. For the face-to-face interview, participants consented to the interview being audio recorded; the interview was then conducted in the participant's own home with only the second author and participant present. The beginning of the interview commenced with general chat to help lessen any anxiety, a brief overview with regard to consent and the nature of the interview, finally, the interview allowed time for any other comments, not previously discussed, with the option '*off tape*' if required. With regard to the VoIP interview the participant was informed that a functional chat feature that archives the conversation would be used for transcription purposes; the participant was also informed the interview conversation would be stored on the researcher's computer and not the network. With regard to both the face-to-face interview and interview conducted by VoIP, all participants were told that the interview would be very informal and that they were welcome to describe their own health, discuss any perceptions in relation to a healthy man and convey any understanding of prostate health and illness.

Participants were reminded that they had the right to withdraw from the research process at any time and the audio recording would be returned if desired. Throughout the interviews the interviewer remained neutral, adopting a non-judgemental, empathic and encouraging approach using active listening techniques (Rollnick, Miller and Butler, 2008), allowing participants to express themselves in their own words. At the end of the interview, the participants were given the opportunity to add any further comments and were then thanked for taking part. By way of debriefing, a period of time for questions or discussion *off tape* took place before the meeting was concluded. The researcher provided contact numbers and website information for further advice relating to men's prostate health if this was requested. With regard to email interviews, the researcher provided an opportunity for the



participant to debrief and offer further thoughts or comments by way of the following question, *“Please note anything else that you would like to add regarding men’s health or relating to other areas”*

### **Data Analysis**

All interview data were transcribed, including the interviewer’s speech. Transcripts were then submitted to a thematic analysis broadly informed by the procedures of grounded theory (Strauss and Corbin, 1990) and adopting a critical realist perspective. The analysis summarised the accounts produced by the participants through the development of abstract theoretical themes, which enabled us to integrate and explain the data. These abstract themes were based upon the identification of “relations of similarity and difference” (Dey 1999: 63) and represent our agreed interpretations of what people said in our interviews. All were defined after the case rather than being driven by our expectations of what might be important to our participants. No qualitative data analysis software package was used for the analysis.

The second author conducted preliminary line-by-line coding, searching for comparisons and dissimilarities between the data. Succeeding the initial line-by-line or ‘open coding’, codes were then linked and used to create core categories, which endeavoured to signify the data. Categories were structured into super-ordinate clusters according to interrelationships evident in the data. A selection of the data was reviewed by the first and third authors who are familiar in qualitative procedures, which enabled verification of the second author’s interpretation of the data. During the course of this procedure, the second author kept a record of thoughts with regard to the analysis and the emergent groupings and theory, this along with memo writing enabled the researchers to fully understand the data. Resulting themes were agreed by all authors through e-mail and face-to-face discussion.

Our analysis developed an initial model of perceptions of younger men's health and prostate problems. Four groupings emerged: 'perceptions of a healthy man'; 'knowledge and information; 'early detection & unpleasant procedures' and 'perceived gender difference.' Further analysis combined the initial themes into two more focused key themes relating to our research question; 'limited knowledge about the prostate' and 'early detection & unpleasant procedures'.

### **The Interviewer**

The interviewer (second author) was a 40-year old White-British female and a Trainee Health Psychologist who developed an interest in the research topic from experience of interviewing men with prostate cancer and their partners, and the general public regarding a variety of emotive issues such as health and long term conditions. The interviewer has previous experience of research interviews, clinical trial interviews, and experience training research interview skills.

## **Results**

The following section reports both quantitative and qualitative data, along with pseudonyms, and age-bands will be used to contextualise the quotes.

### **Health Perceptions**

All participants rated their health on a subjective scale, where 0 indicated 'poor health' and 10 represented 'good health - the best they could be', and provided a rationale for their health rating. Health ratings ranged between 3 and 9, with a mean health rating of 7.3. Table 1 provides subjective personal health rating scores and supportive narratives, to provide context for the quotes below.

### **Thematic Analysis of Interview Data**

Two key themes emerged: 'limited knowledge about the prostate' and 'early detection & unpleasant procedures'.

**Limited knowledge about the prostate:** The men in this study had some knowledge about the prostate, which is in line with Hevey and colleagues (2009). For example, Mick B (30s) noted, "*it is located below the bladder and in men, it secretes fluid in sperm*". Most men made reference to urination problems as symptoms of prostate issues, in particular pain when passing water; "*I would not know what to look for, perhaps pain in the testicles, pain when urinating or a change in colour of a person's urine*" Bozrack (30s). However, two men said they did not know anything about the symptoms of prostate problems and would not know what to look for.

Interestingly, three out of the four men who reported their health "*almost the best it could be*" had very limited knowledge about the prostate, its function and potential problems. Of these, two men provided very limited information in response to the email questionnaire and contributions from these were vague, in spite of prompts. This in itself could be a potential indicator of attention to their health. Given that most participants responded via email, this provided them with an opportunity to research any information before responding to each question. The men in this study reported a variety of sources that provided information about the prostate, although most men were not sure where they got the information and provided possible options such as newspaper articles, charity promotions (Soccer Aid), an NHS leaflet and friends and family.

For five of the men in this study, there were apparent contradictions in accounts. On the one hand, men suggested that limited information on men's health was available and that they felt "unimportant" and that education to improve well-being and screening tests ought to be made available for men to improve their health; "*It would be good if there was some sort of health MOT you could have just to set the mind at ease*" Dave (30s). However, on the

other hand, most men in this study did not convey curiosity about their health, or interest in actively obtaining health-related material for themselves. For example, no reference was made to existing internet websites pertaining to men's health assessment, such as *Men's Health Forum's* Man-MOTs, or any general reference to self-management, for instance, testicular self-examination.

All men reported that to date they have not actively sought information regarding the prostate, its function and associated problems. *"I thought about it but did not follow through with it"* J.D (40s). JD continued to say that the words prostate cancer bring to mind *"a bad one, probably terminal, and to get it checked out as soon as you can."* Men referred to the notion that prostate cancer did not concern them as it was something more pertinent to older men. *"I am aware that the chances of having prostate cancer increases with age so will no doubt get checked out if I feel the need to"* J.S (30s). Additionally, two men (incorrectly) believed that as part of routine care, once men reach a certain age they received annual medical examinations from the doctor. All men reported that they would use the Internet if they *"wanted"* to know more about the prostate and its function. Muppet-Man (40s) said that the *NHS Direct* website would be the key source of information. Only two of the men in this study reported knowing individuals who had had a diagnosis of prostate cancer. Both of these men indicated knowing very little about prostate cancer before hearing about this diagnosis. However, it appears that both men were affected by this experience and became aware of the seriousness of the disease and how the chances of having prostate cancer increase with age.

**Early detection and unpleasant procedures:** The majority of men in this study appeared knowledgeable regarding the functions of the prostate but had limited understanding of screening tests in spite having concerns, as one man commented *"Worries me but I don't really know"* Kim (40s). Interestingly, none of the men in this study were

aware of the prostate-specific antigen screening test (PSA; a blood test that examines levels of the prostate-specific antigen). However, five men were aware of the Digital Rectum Examination (DRE) this could possibly be due to the intrusive perceptions about the procedure. These men presented with mixed views with regard to potentially intrusive screening procedures. One man indicted the importance of getting a test done rather than enduring the implications of not having it done *“Think it might be a finger up the bottom type thing? It wouldn't bother me – better to be safe than sorry with these sort of things”* Dave (30s). Other men reported a differing response that suggested an internal examination would potentially make them feel uneasy, as illustrated by Curtis (30s), *“doctor examination internally – fingers internally inserted into rectum by a doctor would make me uncomfortable and would bother me”*. J.B (40s) also made reference to the notion of unfriendly procedures *“I've heard that it did involve an unpleasant penetrating procedure to detect the enlargement internally, but I am not sure if this is still the case”*

Three men indicated they had had experience of an internal examination; J.D (40s) reported, *“I've had it done and it was friggin' uncomfortable. And I had to change my doctor (can't face the bloke who's had his fingers up my a\*\*e, although I was grateful for the all clear)”*. Bob. J (40), highlighted a colonoscopy as a potential screening test, he stated, *“I had this done recently – a little bothered beforehand, but was actually not as bad as I thought it would be”*. Mr G. (50s) noted, *“I have had a medical check for prostate, nothing really bothers me, and it's not that bad once you have had it done once, doctors that I have been to are very nice.”*

In terms of treatment options, most men commented that they did not know specifically, but provided a response to that of other cancer treatments, by and large suggesting chemotherapy, or removal. *“Not really, I guess medication to reduce any non-*

*cancerous swelling or the usual cancer treatment - radiotherapy or chemotherapy etc.”* Curtis (30s).

A quarter of men commented that if they were concerned about prostate cancer it would be family members that would encourage them to seek support from a health professional. However, there were a variety of influences that would encourage a man to seek information if he was anxious about prostate cancer, such as *“the risk of dying”* J.D (40s), *“Being comfortable with my GP, knowing the possible symptoms so I would know I should get checked”* Mr.G. (50s), *“a screening programme-like cervical cancer; Dave (30s), “a prostate clinic”* Mike S. (40s) and *“If I had the symptoms stated for a period of time or if I thought these were getting worse”*(JB 30s). One man, Dr.Vest (30s), pointed out that *“although, the G.P. I did see was okay but generally they are so matter of fact which doesn't help.”*

When the men in this study were asked to respond to a hypothetical invitation to attend a G.P surgery for screening procedures, responses highlighted mixed views with reference to intrusive procedures and overcoming potential embarrassment as Dr.Vest (30s) states:

*“Well, I would have to get used to the idea, look at the bigger picture in the grand scheme of things...but I don't know it's enough to make me hesitate. If they sent the letter with recommendations and guidance...what to do before the procedure, like hygiene, having a movement that morning, then you know you have done everything you can and if they end up with a bit of dirt on their glove then it's not so bad because you have done everything they asked to prevent it. Yes, I think that would help.”*

### **Discussion**

Perception of the seriousness of symptoms and concerns about intrusive procedures influenced men's decisions to attend health care services for prostate screening. As in

previous research (Jeffries and Grogan, 2012), men in this study reported feeling devalued, embarrassed and discomforted by attending healthcare services, this being predominately attributed to potentially intrusive procedures. Similar findings were reported by Zully and Buki (2011) who found that their Latino participants perceived the process of introducing a finger into the rectum as humiliating and a threat to their manliness; and some men have reported that they would have the digital rectal examination only if no other alternative was available (Meade et al., 2003).

Participants argued that visiting their G.P. for prostate screening procedures or any potential treatment would make them feel helpless and exposed, supporting previous findings (e.g. Fyffe et al., 2007; Jeffries and Grogan, 2012). Men in this study suggested that the way medical professionals communicate with them would influence whether they sought support for prostate-related symptoms, supporting previous work (Dube et al., 2005; Fyffe et al., 2007; Hale et al., 2007), highlighting the importance of previous positive patient-practitioner interactions when encouraging men to refer. Dube and colleagues (2005) noted that a lack of explanation during physical exams resulted in negative experiences. Men were eager to learn more about their health, but frequently commented that they received neither suitable cancer screening nor adequate explanations from their physicians. Therefore a good relationship between a man and his doctor is a crucial aspect of encouraging men to refer with prostate related concerns. Two men in the current study perceived that approaches to male health were inadequate. This is in line with previous research, where men have suggested there are insufficient services catering to their health care requirements (Coles, Watkins, Swami, et al., 2010). Men desired routine screenings and health check-ups similar to those available to women, but found that these were not available for them, supporting previous research (Coles et al., 2010).

### **Limitations and Further Research Directions**

Limitations in this study include the method of sampling which might have produced bias. Participants contacted using 'snowballing' often have comparable experiences and views to the initial contact, leading to a decrease in the diversity of the sample (Taylor and Bogdan, 1998). Further research could use a more diverse method of data collection such as online messaging support from men's health websites. Participants were mainly middle-class and all were white-British, so future research may gain more varied insights by including a more diverse group of men from other ethnicities, nationalities, and socio-economic groups.

Using email allowed collection of data that would otherwise have been difficult to obtain due to restrictions of time, distance, and cost. This approach may also have reduced reactivity as there was no face-to-face exchange (Murray and Sixsmith, 2002). However, in spite of prompts embedded within the questionnaire, the amount of information gained from email questioning varied in that some men provided detailed information and others little or no explanation for their responses. This differed from the face-to-face and VoIP interviews where the interviewer was able to obtain more detailed information through using probes. Also, those who completed emailed questions may have been influenced by input from others (it is not possible for us to know whether men completed this task alone), and questions could have been researched before answering, specifically with regard to functions of the prostate.

### **Reflexive Comments**

The interviewer envisaged initial obstacles with data collection, being a woman discussing men's health, specifically, prostate health. On the contrary, men were forthcoming with information. However, while responding to questions relating to the prostate and its function, few men elaborated on sexual function and health, an area which could have been explored in more depth. With regard to the interpretation of data, this could have been influenced by all three authors having a prior knowledge of men's experiences of prostate cancer from other qualitative research.



## Conclusions and Implications

Health professionals need to raise awareness of prostate problems in younger men, but also tackle health-related beliefs as suggested by previous research (White, Fawcner and Holmes, 2006). For example, the belief that prostate cancer only affects older men was frequently mentioned by participants in the current study, even in men who reported having a relative with prostate cancer. Additionally, understanding younger men's health beliefs and perceptions of when to seek help is crucial. It is important to work with men to overcome demoralising thoughts and encourage them to present at health care services, as early detection of prostate problems could lead to a better prognosis.

Men interviewed in this study reported struggles in managing their health. Currently men under 50 in the UK are not invited for prostate checks, but our data suggest that even if UK Primary Care Services did invite younger male patients to attend for health checks some men may still not attend such sessions. Developing health promotion material that acknowledges how health checks could make a man feel (e.g. in terms of uneasiness), and that also elaborate on the benefits and importance of having such a procedure carried out will be useful. Since younger men may not be familiar with the prostate and may believe that prostate problems are not a concern until older age, age-appropriate information on prostate health and the importance of understanding one's own anatomy, would also be valuable. According to Smith (2007) there has been a lack of attention paid to exploring men's own perspectives on their healthcare needs. Healthcare services could work with men's health services (such as *Men's Health Forum*) to develop age-appropriate internet-based self-management guides, and Health Psychologists could contribute to the development of effective health promotion materials promoting prostate screening to young men, recognising fears around referral and possible misunderstandings of prostate cancer. Accessible and

tailored services need to be available to support younger men, to promote health and potentially save lives.

## References

**British Psychological Society (2009) Code of Ethics and Conduct - Guidance published**

**by the Ethics Committee of the British Psychological Society. Available at:**

**<http://www.bps.org.uk/what-we-do/ethics-standards/ethics-standards> (accessed 27 April 2015).**

Cancer Research UK (2015) Prostate Cancer Incidence Statistics. Available at:

<http://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/prostate-cancer/incidence#heading-One> (accessed 18 August 2015).

Coles R, Watkins F, Swami V, Jones S., Woolf, S and Stanistreet D (2010) What men really want: A qualitative investigation of men's health needs from the Halton and St Helens Primary Care Trust men's health promotion project. *British Journal of Health Psychology* 15(4): 921–939.

Conde FA, Landier W, Ishida D, Bell R, Cuaresma CF, Misola J. (2011) Barriers and Facilitators of Prostate Cancer Screening among Filipino Men in Hawai'i. *Oncology nursing forum* 38(2):227-233. doi:10.1188/11.ONF.227-233.

Dey I, (1999) *Grounding Grounded Theory: Guidelines for Qualitative Inquiry*. London: Academic Press.

Dube C, Fuller K, Rochelle M, Rosen K, Fagan M and O'Donnell J (2005) Men's experiences of physical exams and cancer screening tests: a qualitative study. *Preventive Medicine* 40(6): 628– 635 doi:10.1016/j.ypmed.2004.10.021

- Fyffe DC, Hudson SV, Fagan JK, and Brown DR (2007) Knowledge and barriers related to prostate and colorectal cancer prevention in underserved black men. *Journal of the National Medical Association* 100 (10): 1161-1167.
- Galdas P (2009) Men, masculinity and help-seeking behaviour. In Broom A and Tovey P (eds) *Men's Health: body, Identity and Social Context* Chichester: Wiley-Blackwell, pp. 63-82.
- Guest G, Bunce A and Johnson L (2006) How many interviews are enough? An experiment with data saturation and variability. *Field Methods* 18(1): 59–82.
- Hale S, Grogan S and Willott S (2007) Patterns of self-referral in men with symptoms of prostate disease. *British Journal of Health Psychology*, 12: 403-419.
- Hewson C (2010) Internet-mediated research and its potential role in facilitating mixed methods research. In Hesse-Biber SN and Leavy P (eds), *Handbook of emergent methods* New York: Guilford, pp. 543–570.
- Hevey D, Pertl M, Thomas K, Maher L, Ní', Chuinneaga S and Craig A (2009) The relationship between prostate cancer knowledge and beliefs and intentions to attend PSA screening among at-risk men. *Patient Education and Counselling* 74: 244–249 doi:10.1016/j.pec.2008.08.013
- Jeffries M, and Grogan S (2012) 'Oh, I'm just, you know, a little bit weak because I'm going to the doctor's': Young men's talk of self-referral to primary healthcare services. *Psychology and Health* 27(8): 898-915. DOI:10.1080/08870446.2011.631542
- Karapantazis S and Pavlidou FN (2009) VoIP: A comprehensive survey on a promising technology. *Computer Networks* 53(12): 2050–2090.
- Meade CD, Calvo A, Rivera MA, and Baer RD (2003) Focus groups in the design of prostate cancer screening information for Hispanic farmworkers and African American men. *Oncology Nursing Forum*, 30, 967–975. doi:10.1188/03.ONF.967-975

Murray CD and Sixsmith J (2002) Qualitative health research via the Internet: Practical and methodological issues. *Health Informatics Journal* 8(2): 47–53.

doi:10.1177/146045820200800109

Murray M and Chamberlain K (1999) *Qualitative Health Psychology*. London: Sage.

Patton MQ (2002) *Qualitative research and evaluation methods* (3rd ed). Thousand Oaks, CA: Sage.

Prostate Cancer UK (2015) Prostate Information. Available at <http://prostatecanceruk.org/> (accessed 16 April 2015)

Rollnick S, Miller W, and Butler C (2008) *Motivational Interviewing in Health Care: helping patients change behavior*. New York: Guilford Press.

Salinas CA, Tsodikov A, Ishak-Howard M and Cooney KA (2014) 'Prostate cancer in young men: an important clinical entity'.

*Nature Reviews Urology*,

11,

317–323.

Smith JA (2007) Beyond masculine stereotypes: Moving men's health promotion forward in Australia. *Health Promotion Journal of Australia* 18(3): 20–25.

Strauss A and Corbin J (1990) *Basics of qualitative research: Grounded theory procedures and techniques*. London: Sage.

Taylor SJ and Bogdan R (1998) *Introduction to qualitative research methods: A guidebook and resource*. Chichester: Wiley.

White AK, Fawcner H and Holmes M (2006) The health of men and women – a case for differential treatment? *Medical Journal of Australia* 185(8): 454–5.

Zully RA and Buki LP (2011) I Will no longer be a man! Manliness and prostate cancer screenings among Latino men. *Psychology of Men & Masculinity* 12(1): 13–25. doi: 10.1037/a0020624

**Table 1: Participants' Key Characteristics**

<b>Pseudonym</b>	<b>Age</b>	<b>Occupation</b>	<b>Live With</b>	<b>Health Rating</b>	<b>Rationale for Health Rating</b>
	<b>(Years &amp; Months)</b>			<b>(0-10)</b>	
Bozack	38;3	Fitness instructor	Male partner	8	I feel that my diet could be better by eating less high fat foods at weekends and also by cutting down on my alcohol intake. I also feel I could increase my muscle mass and cardiovascular fitness and drink more water throughout the day.
Craig1	40;3	Pub Manager	Girlfriend	7	In good health but smoke and over weight
Dave	33;8	Procurement	Girlfriend	9	Only been to the doctor's once in the past couple of years and only had ½ days off sick
Dr. Vest	36;2	Analyst Data Analyst	Girlfriend	9	I exercise 4 - 6 times per week and also live a healthy lifestyle. I do not smoke and seldom drink. I have been fit and healthy all my life. Only reason I have not put myself at 10 is due to any possible genetic
Joe Bloggs (JB)	43	Engineer	Wife/ children	7	medical conditions that I am unaware of. Feel OK – a few minor niggles but other than that I am fine

MickB	39;9	Plasterer	Wife/ child Alone	8	Physically fit with no real health issues.
Kim	42;7	Teacher	Alone	4	I smoke far too much for a long time
Curtis	31;2	Psychotherapist	Wife/ children	8	Fit and healthy really, no ailments or chronic conditions. However could be fitter, more stamina. Used to run marathons and there is little chance of that now
Simon	49	Attendance officer	Wife/ children	8	Gym goer and seldom have to go to my GP
Mack	37;7	IS Business Analyst	Alone	7	I exercise 4 times a week with general Cardio (40 mins) and about 30 mins weights. I also play golf once or twice a week in the summer and if possible walk to work (20 mins). I would prefer to lose another stone and have a lot lower body fat and hence why I put myself as a 7 compared to the majority of the general public I see and my perception of their fitness. I eat pretty healthily but could cut out the alcohol I drink at the weekend only which would again push my score up. In recent years I've had operations on injuries to my shoulder and 2 herniated discs in my back but these are now ok

					although I have to be careful what exercise I do with my back. Again another reason I would put my physical health as a 7 and not higher. If this was purely on mental health then I think I would put myself lower as I have gone through several low patches in the last 5 years with stress from work and break ups from 2 long term girlfriends, which still leaves me feeling down if I get run down. As an overall of physical and mental though I would say I'm above average and hence the 7 but no higher
Jon Smith	39;5	Photographer	Wife	7	I am in general good health but have a trapped nerve in my neck that
(JS) Mr G	50	Human	Male	9	I am currently undergoing treatment for. No comment
James Dean	45	Resources Prison Service	Partner Wife/	6	Relative to my peers I am healthy more than they are but I am
(JD)		Manager	children		overweight by a couple of stone and I do not exercise as much as I should. I also like rich food and beer and although I do not indulge
Bob Jones	41	Engineer	Wife/	8	my likes daily, I do indulge them regularly.
			children		Very rarely ill. Feel fit – play football every week, walk the dog, and work on the car. Not a 10 due to visiting the GPs once or twice this

Muppet Man	44;1	Shop Manager	Alone	9	<p>year.</p> <p>I don't smoke, exercise regularly</p>
Mike S	42;8	Engineering Manager	Wife/ children	3	<p>I have chosen this number because I have knee problems which I have been waiting for the issues to be resolved for over 5years. I have had 2 previous operations on my right knee and these have not fixed the problem and therefore I am unable to exercise to my full potential and get my heart rate increased. I eat exceptionally healthy however, I am overweight due to the lack of exercise. I only drink at weekends and I consume approximately 3 bottles of wine over the weekend. At the weekend I will smoke a small number of cigarettes.</p>