

# **UWL REPOSITORY**

# repository.uwl.ac.uk

GPs' perceptions of resilience training: a qualitative study

Cheshire, Anna, Hughes, John G. ORCID: https://orcid.org/0000-0002-4513-2395, Lewith, George, Panagioti, Maria, Peters, David, Simon, Chantal and Ridge, Damien (2017) GPs' perceptions of resilience training: a qualitative study. British Journal of General Practice, 67 (663). e709-e715. ISSN 0960-1643

http://dx.doi.org/10.3399/bjgp17x692561

This is the Accepted Version of the final output.

**UWL repository link:** https://repository.uwl.ac.uk/id/eprint/7716/

**Alternative formats**: If you require this document in an alternative format, please contact: open.research@uwl.ac.uk

# Copyright:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

**Take down policy**: If you believe that this document breaches copyright, please contact us at <a href="mailto:open.research@uwl.ac.uk">open.research@uwl.ac.uk</a> providing details, and we will remove access to the work immediately and investigate your claim.

#### TITLE PAGE

Title: GPs' perceptions of resilience training: a qualitative study.

Running title: GP resilience training

#### Anna Cheshire

University of Westminster, Department of Psychology, 115 New Cavendish Street, London, W1W 6UW Telephone: 020 7911 5000 Email: a.cheshire@westminster.ac.uk

## John Hughes

Royal London Hospital for Integrated Medicine, UCLH NHS Trust, 60 Great Ormond Street, London, WC1N 3HR Telephone: 0203 4488883 Email: John.Hughes@uclh.nhs.uk

#### Damien Ridge

University of Westminster, Department of Psychology, 115 New Cavendish Street, London, W1W 6UW Telephone: 020 7911 5000 Email: d.ridge@westminster.ac.uk

## Maria Panagioti

Institute of Population Health, Centre for Primary Care, Suite 4, Floor 6, Williamson Building, Oxford Road, Manchester, M13 9PL Tel: 161 306 0665 email: maria.panagioti@manchester.ac.uk

## David Peters

University of Westminster, Westminster Centre for Resilience, 115 New Cavendish Street, London, W1W 6UW Tel: 020 7911 5000 Email: <a href="mailto:petersd@westminster.ac.uk">petersd@westminster.ac.uk</a>

# Chantal Simon

GP Partner, The Banks and Bearwood Medical Centres, Bournemouth BH3 7AT Tel: 01202 593444 and Medical Director for Professional Development, Royal College of General Practitioners email: Chantal.Simon@rcgp.org.uk

## George Lewith

Professor of Health Research, Primary Care, University of Southampton, Aldermoor Health Centre, Aldermoor Close, Southampton SO16 5ST Tel: 02380 241073 and visiting Prof University of Westminster Centre for Resilience. Email: gl3@soton.ac.uk

Title: One size does not fit all: exploring GPs perceptions of resilience training Running title: GP resilience training

#### **ABSTRACT**

**Background:** GPs are reporting increasing levels of burnout, stress and job dissatisfaction. There is also a looming GP shortage. Promoting resilience is a key strategy for enhancing the sustainability of the healthcare workforce and improving patient care.

**Aim:** To explore GPs perspectives on the content, context and acceptability of resilience training programmes in general practice, in order to build more effective GP resilience programmes.

**Design:** Study design was qualitative, with data collected from two focus groups and seven one-to-one telephone interviews.

**Method:** Focus groups (n=15) and interviews (n=7) explored the perspectives of currently practicing GPs in England, recruited through convenience sampling. Data were collected using a semi-structured interview approach and analysed using thematic analysis.

**Results:** Participants perceived resilience training to be potentially of value in ameliorating workplace stresses. Nevertheless, uncertainty was expressed on how to best provide training for busy and stressed GPs who have limited time. Participants suspected GPs most likely to benefit from resilience training were the least likely to engage as stress and being busy worked against engagement. Conflicting views were expressed about the most suitable training delivery method for promoting engagement. Participants also emphasised that training should not just place the focus on the individual, and should also focus on organisation issues.

**Conclusion:** A multi-modal, flexible approach based on individual needs and learning aims, and conducting resilience workshops within undergraduate training and in individual practices, is likely to be the optimal way to increase resilience.

Keywords: primary health care, general practitioners, professional burnout, coping skills, psychological resilience, training

#### How this fits in

- Resilience training is one of a number of potential tools to tackle the current unprecedented challenges in primary care.
- Although resilience training is acceptable to GPs, a major challenge is improving access to training for those most in need.
- A multi-modal, flexible approach based on individual and practice needs/learning aims is an ideal way to increase access to resilience training.

 Organisational approaches to resilience are vital: an exclusive focus on improving individual coping risks sidestepping the systemic challenges shaping primary care.

#### **INTRODUCTION**

Primary care delivers 90% of National Health Service (NHS) activity through General Practitioners (GPs) (1, 2), who are currently experiencing a highly demanding and stressful work environment. Issues include high workloads (3), lengthy working hours (4), and sustained cognitive and emotional challenges (5). Although many derive joy, meaning, and satisfaction from their profession (6)(7), many also report high levels of stress and job dissatisfaction and up to 50% experience burnout. This has serious implications for GPs themselves, service delivery and the quality of patient care (8-11). The below target recruitment of medical trainees to general practice and the low retention rates of qualified GPs are contributing to a workforce crisis (11-13).

Promoting resilience is a key strategy for enhancing the sustainability of the healthcare workforce and improving patient care (14). Resilience is an individual's ability to adapt and manage stress and adversity, it is not a static trait but varies with circumstances, knowledge, skills, and attitudes (15). Resilience has the potential to improve physician wellness by mitigating distress, especially when used for prevention rather than as a response to existing problems (16, 17). Evidence suggests that resilient doctors deliver higher quality care, and are less prone to medication errors and getting sick/leaving practice, all of which have cost implications for the NHS (14, 15). Approaches to promoting resilience in clinicians are increasingly viewed as 'multifaceted', requiring a combination of personal, social and workplace features (18). Recent evidence suggests that physician resilience is a shared responsibility of the individual and the healthcare organization (19, 20): organizational and multi-component interventions are more effective at reducing burnout and improving resilience compared to solely targeting the individual (15, 17). Tangible improvements in general practice are more likely with the application of practice-wide resilience programmes to promote not just personal wellbeing, but also relationships between the whole team (17).

A core prerequisite for improving resilience in general practice is to understand the needs of GPs and tailor resilience programmes accordingly. A number of international studies have found key GP approaches to dealing with stress were mindful self-compassion and self-awareness, optimism, adaptability and prioritization, teamwork and supportive relationships, and job-related gratification (6, 18, 21, 22). In the UK, two recent qualitative studies concurred that the emotional lives and stresses of GPs are largely shaped by NHS factors and that resilience consists of a synergy of personal characteristics (self-worth, flexibility, organisational skills, assertiveness, humour) and professional and organisational promoters (strong management support, teamwork, workplace buffers and resources) (23, 24). The Kings Fund report 'Understanding

pressures in general practice' offers a useful insight on ways of more effectively helping with growing pressures (25).

In this study we collected qualitative data to elicit GPs perspectives on the content, context and acceptability of resilience training programmes in general practice. Our aim was to offer an insight of the GPs' personal experience in resilience and identify the attractive elements of resilience programmes and participating challenges, in order to build more effective GP resilience programmes.

#### **METHODS**

## Design

Focus groups allowed GP discussions regarding what GPs needed to support and build their resilience. GPs are busy (25), thus more flexible telephone interviews (covering the same topics) were offered to those unable to attend a focus group. The interview topic guide was additionally informed by themes emerging from the group discussions (26). The study uses an exsisiting qualitative dataset (24).

## Participants and recruitment

Recruitment packs including participant information sheets were made available to GPs at the resilience talk delivered at the RCGP 2015 Annual Conference. Additionally, a study flyer was placed on the RCGP website and sent to local RCGP faculties and medical committees. We exploited our extensive primary care contacts targeting GP gatekeepers, asking them to distribute our flyer to their contacts, and using snowballing - with those recruited asked to contact colleagues about the study.

Inclusion criteria were: currently practicing as a GP in England. GPs who expressed an interest were emailed a participant information sheet and consent form, and invited to a focus group in London or Bournemouth or a telephone interview. Participants received no financial reimbursement for participation.

Twenty-two GPs participated in the study (January to March 2016): two focus groups (Bournemouth, n=8; London, n=7) and seven telephone interviews. We recruited a wide demographic in terms of age, sex, type of GP, practice type and working hours (Table 1).

<Insert Table 1 about here>

## **Data collection**

We adopted a semi-structured approach to data collection. We asked GPs what they needed to support and build their resilience including type of support, format of delivery, improving accessibility of support, and their perceptions of resilience training. Focus groups lasted 37 and 77 minutes, interviews 35-65 minutes, all were conducted by an experienced qualitative researcher. Discussions in focus groups flowed easily and, once the facilitator raised a topic, minimal facilitation was required. Focus groups

allowed debate and drawing out of issues, whilst interviews explored underlying issues and in depth individual experiences (27). The point of data saturation (28) – no new themes of interest were emerging – was debated between the first authors, and determined to be 22 participants. Interviews and groups were recorded and transcribed verbatim; transcripts were checked for accuracy and anonymised.

## **Analysis**

A constructivist epistemological approach was adopted. Constructivism acknowledges that reality is a construct of the human mind. There is not one objective 'reality', rather reality will be experienced differently depending on the thoughts and interpretations each individual brings to a situation. Thus, for this study we took the position that we were working with subjective GP experiences and opinions (29). Data were analysed inductively (30): we did not test a specific hypothesis or impose any pre-determined ideas on our data, rather we based our findings on what participants were telling us were the important issues, thus allowing our research themes to emerge from the data. Thematic analysis (31) was used. Two researchers immersed themselves in the data, repeatedly reading the transcripts to understand participants' experiences. Key issues, concepts and themes arising from the data were identified and debated, creating a draft-coding framework that was discussed with the research team, to construct the final conceptual framework. Transcripts were coded and explored in NVivo software (32) and findings were written up into a draft which was then debated and finalised by all authors. We have successfully used similar approaches to analysis in other papers (24).

#### **FINDINGS**

Findings on GPs perceptions of what kind of support GPs need to build resilience are presented below under the following themes: perceptions of resilience training, resilience training course content, and delivery of resilience training.

<Insert Table 2 about here>

#### Perceptions of resilience training

All participants spoke at length about what they perceived to be excessive challenges associated with the GP role, described in our earlier study (24). Participant's perceived resilience training to be potentially valuable in ameliorating workplace stresses. Those who had undertaken resilience training themselves, or knew of colleagues who had, spoke favorably of this kind of teaching.

'As I said, there's a couple of people that I've heard have been on the resilience say it's quite good.' P14F, 57, FT

'Improving the way that people manage their own stress is certainly valuable.' P25M, 38, PT

However, there was an appreciation that resilience training would differentially benefit GPs. Some GPs already possessed good resilience skills and techniques for coping with workplace stress. Participants suspected GPs whose current stress levels were highest would be most likely to benefit from resilience training. However, this group were considered less likely to engage, as ironically, their stress levels were seen as impinging on their ability to engage in resilience training.

'Well I think some people innately can always look at the cup half full can't they, and I probably have that personality or I wouldn't have survived this long, so I think that can be trained.' P3F, 59, FT

Additionally, GPs highlighted that organisational factors also needed to be considered in relation to GP stress. Many acknowledged that there was only so much an individual GP could do to manage their stress (e.g. resilience training), given the external work pressures they faced.

'What you've got to be careful to do is not ignore the fact that, actually, maybe, for most of us, we are not coping with the stressors because there's too much stress, not because we're not resilient enough. And therefore if you don't solve the root cause you get nowhere.' FG2M

## **Resilience course content**

There was considerable agreement between participating GPs regarding what should be included in resilience training. Participants frequently drew on personal experiences of what had helped them, or cited approaches for which they felt a strong evidence base existed. Many had successfully used mindfulness/meditation or yoga/breathing exercises and these were viewed as effective techniques. Additional techniques and topics suggested for inclusion were lifestyle advice (including exercise and dietary advice), general stress management advice (including relaxation/self-care techniques), and better understanding of the physiology of the stress response.

'Acceptance and commitment training. ... is like a third wave of behavioural therapy, beyond CBT, but it's very much about reconnecting with your values, but using mindfulness alongside reconnecting with your values.' P30

'I'm a little bit biased and seeing the value of meditation and deep breathing and yoga and stuff like that. Yeah, just a little bit of office yoga to stretch out your body at your desk. Just some deep breathing techniques which are really simple but really powerful. And, yeah, I think everyone should learn how to meditate and I think GPs probably as much as or more, need it more than anyone. Because you can take two minutes out and re centre yourself when you're feeling super stressed in the middle of things just by doing those things. And so I think those techniques are very useful.' P24F, 36, PT

'Just try to re-encourage my colleagues about the absolute basics of their own health and wellbeing self care, so I know there are loads of people who eat junk food to get through the day, or don't eat all, so one of the things which I would think would be really key would be finding ways of encouraging people, to just remind them that they're not gods, or different from other human being. And that they need some basics in terms of food and exercise and fresh air and a break, if it's at all possible, every day.' P30F, 41, FT

Some participants highlighted that it would be beneficial to include practical approaches to reducing stressors in the GP workplace. Training could include practical advice to address some of the challenges faced in a practice and/or at local level, including improving communication and support amongst work colleagues and simple practical approaches to improving workplace efficiency.

'So in a GP surgery, if you have an approach where the patient demand is never met, helping the practice establish the best system to manage the work on the day seems like a practical solution.' P4

'A lot of the solutions need to be either local or almost practice based ... the practices that are coping better have a better sense of team.' P25

Others highlighted that being able to share experiences with peers was particularly therapeutic, engendering support and problem solving amongst colleagues. Skilled facilitation would be needed to ensure that the workshops did not become a detrimental 'moan fest'.

'I think being in a group setting where other people say, yes I find that really hard too ... I think knowing that other people feel like that too is comforting and that it's not just you feeling that you're going off the boil and you can't do this anymore.' P14

'It's important to have that space to decompress but there's something around making sure it doesn't get depressing and just a moan fest.' P24

Others discussed how resilience training was useful in providing the language for GPs to discuss evidence based resilience concepts and ideas, and how this was important in itself.

'I suppose one of the things that's useful about the work that's being done at the moment is that there's a language which is developing to describe what resilience means and how we've become a bit more resilient to the stressors in our lives. And there's a bit more out there. There's a bit more of an evidence base. There's a bit more of an ability and an expertise to talk about it.' P25

# **Delivery of resilience training**

When discussing the *mode* of resilience training, views were much more conflicted and a major challenge emerged: how do you provide training for busy and stressed GPs who will find it difficult to find time to attend training? The majority felt that a one-off group workshop, ideally half a day in length, would be best - not taking up too much time but significantly providing the valued group experience. However, some participants warned that a one-off workshop would be 'pointless'; effective resilience training would need to involve continuous learning. These participants preferred approaches, such as the development of autonomous resilience groups responsible for their own continuing education, although it was also acknowledged that it could be challenging for GPs to attend these regular groups.

'Yeah, I guess a half day course is good because it just requires a one off time commitment whereas weekly courses are a little bit more of an investment.' P24

'I think if they're going to be just one off activities, that's pointless, absolutely pointless. And I really think this has to be a continuing thing. ... So I would say, if you're going to do resilience training, it can't be just one off events, it's got to be something that can be continuous and done again and again, and perhaps little groups can be autonomous in training themselves rather than getting people in all the way to provide the training. Fair enough about getting people to start off the training, but certainly to create autonomous groups who could then train themselves.' P26M, 45, PT

'Schwartz rounds, The Balint Group or even just slightly less formal peer learning groups.' P30

Online training and forums were favoured by some GPs, allowing busy GPs to access resources at a time and place convenient for them. However others disagreed, suggesting GPs already spend too much time on their own at a computer.

'I do think face to face forums are really good too, but I suppose the thing about the online is just the reach, because I know one of the massive limiting factors is just time and logistics, so that's where I think online would come into their own. ... I could imagine it being like an online module, with different aspects of wellbeing, with all sorts of links to things and some will inspire some people and some won't. But it might be that some sort of real basics, like how to look after your health, what sorts of exercise is important, what food, then let's think about your psychology, mindfulness is one option, other sorts of relaxation exercises are another, but I also think another sort of sub module would be about relating, so actually really trying to make sure you've got space to connect with other people.' P30

Thus a multi-modal approach/flexible approach based on individual needs and learning aims was considered to be the ideal offer. Others suggested supplementary material to support one-off training groups including Apps or a 'online toolkit'.

'I guess probably the way that I would work it is that is supposed to be multimodal. Different people like things different ways.' P25

'But the other thing I was thinking about when you were first talking about was an app or something. Because you know things like Headspace and just to have a, it's a change in the way that you approach your day which is needed and so having just an app popping up and going, have you done ten breaths today? Or whatever it is or, yeah, have you exercised this week?' P24

'A toolkit or a check kit that people can go online, a website, and say, these are some ideas that different GPs have found have helped them, why don't you give these a go, like a tick box.' FG1M

Some highlighted that the inclusion of mentoring from more senior colleagues as part of resilience training or a 'buddy' could be beneficial to the long-term resilience of GPs. Similarly a training approach whereby GPs undergoing resilience training were expected to bring the skills they learnt back into their practice was seen as a useful approach to disseminating the benefits from the training.

And then different people can join and leave whenever they want, the idea being those people who actually attend the meetings learn how to become resilient and learn how, and then start feeling positive about life again. And the idea is then that would cascade to the practices they go back to.' P26

'The other idea I'd had was a buddying up programme, through the college, so just finding somebody in your area that you might touch base with once a month.' P30

Given the fact that feeling part of a team within your own practice and offering mutual support was seen as bolstering GP resilience, some participants felt that it may be of benefit for resilience workshops to be conducted within their practice, or with a population of local GPs. Others suggesting building resilience training into university medical training.

'I think, a team is the most important thing. So I don't know, I think, yeah, within practices or local groups maybe.' P24

#### **DISCUSSION**

## Summary

Participants thought resilience training could be of value in ameliorating the impact of workplace stress. They suggested resilience training should focus on mindfulness/meditation, yoga/breathing exercises, lifestyle advice (exercise and dietary advice), general stress management advice (relaxation/self-care techniques), and providing information on physiology of stress and how to manage practical issues causing stress. They also felt that organised sharing of concerns with peers would be helpful. However, participants emphasised that resilience training should focus not only on individual factors, but take account of the many organisation issues that need addressing.

Reaching and engaging GPs with busy time schedules in resilience training was uncovered as a core challenge. Participants suspected GPs most likely to benefit from resilience training were the least likely to engage as their stress levels mitigated engagement. There were conflicting views about how to encourage engagement (e.g. online vs in person, one off vs ongoing sessions). Overall a multi-modal, flexible approach based on individual needs and learning aims was considered ideal. Others suggested that resilience training should be built into undergraduate medical education and that developing resilience workshops within practices could increase access.

# Strengths and limitations

Our sample included a range of demographics, practices and roles. There were more females, salaried GPs than partners, and GPs from urban practices (33, 34); but our proportion of full- and part- time GPs was consistent with national figures (33). Our sample size (n=22) was adequate for this type of qualitative study, and our data reached saturation for the issues relevant to the study (35). Our sampling methods may have attracted GPs with an interest in resilience and time to participate. Interviews and focus groups provided a helpful combination of data collection methods.

## **Comparison with existing literature**

Our research and others cautions against viewing the problem of GPs stress as an issue only to be tacked at the individual level, and emphasises that organisational factors are a crucial determinant (23, 24) because they continually impact on the individual (37). Further, recent systematic reviews and meta-analyses have found that intervention programs for burnout in physicians can be significantly enhanced by adoption of organisation-directed (as opposed to physician-directed) approaches (19, 20). Supporting the view that this is an issue for the whole healthcare organisation, rather than individuals.

There was consistency amongst our participants about the content they would like to see included in training. A number of participants practiced mindfulness, meditation or yoga and proposed these self-regulation activities as part of resilience training. Current research and opinion suggests that, in medicine, resilience calls for more than just coping with stress; rather than merely bouncing back from adversity, doctors' resilience is associated with a set of positive characteristics that suport self-care, well-being and flourishing in practice (18, 23). It has been suggested that resilience training should promote deep self-awareness for lasting benefit (38). A 2016 review noted that research on improving GP well-being has been limited by its predominant focus on stressors, rather than to the development of positive mental health (39).

Whilst GP burnout and support needed for GPs is increasingly acknowledged (36), GPs most in need of support are those who are least likely to access it. This suggests that any

support offered to GPs will need to consider how to promote access to those most in need.

# Implications for research and practice

The implications for practice are clear: when delivering resilience training, 'one size fits all' approaches are unlikely to be acceptable or effective. Although participants broadly agreed on the core content for resilience training, a wide variety of topics was suggested. Therefore programmes most likely to appeal are those based around a 'core curriculum' delivered in various formats (including blended learning online options), augmented by optional content exploring certain topics in-depth. Training will need to cover ways of promoting well-being, self-awareness and better practice organization, as well as dealing with individual stress.

In order to meet GPs' diverse requirements, access to training should be convenient, multi-modal, flexible and responsive to personal learning needs. Training is promoted, or conversely may be undermined, at both personal and practice levels. Thus practice-based resilience training could be an effective way of addressing individual *and* local organsiational issues. There is, however, a growing recognition that primary care is at breaking point (25, 40), thus systemic changes to the work environment alongside phsyican training (14, 41, 42) will be vital in improving resilience and retaining the primary care workforce.

## ADDITIONAL INFORMATON

**Funding:** The study received funding from The Westminster Centre for Resilience and the Royal College of General Practitioners.

**Ethical approval:** Ethical approval for the study was obtained through the University of Westminster Ethics Committee. We confirmed (using the HRA decision tool and telephone/email correspondence with our Local Clinical Research Network) that NHS ethical approval was not required for this study.

**Competing interests:** We declare the following competing interests: DP runs the Westmisnter Centre for Resilience which delivers resilience training to doctors. CS commissions training courses (including resilience training) for the Royal College of General Practitioners their continuing professional development portfolio. AC, JH, MP and DR declare no competing interests.

#### **Acknowledgements:** We would like to thank:

- The Royal College of General Practitioners and Dragana Milosevic for supporting the study and providing funding
- All those who helped with recruitment, particularly Chris Manning, and the practices who hosted the focus groups and the staff who helped organize them
- All the participants who gave up their time to take part in the study

• In particular, to Prof George Lewith, for all his work and support on the project, who passed away during the writing of the paper

#### REFERENCES

- 1. NHS England. Transforming Primary Care in London: A Strategic Commissioning Framework. London: NHS England, 2013.
- 2. NHS England Analytical Service. Improving General Practice a call to action. London: NHS England, 2013.
- 3. Bell BG, Reeves D, Marsden K, et al. Safety climate in English general practices: workload pressures may compromise safety. J Eval Clin Pract. 2015;16(10):12437.
- 4. Williams ES, Rondeau KV, Xiao Q, et al. Heavy physician workloads: impact on physician attitudes and outcomes. Health Serv Manage Res. 2007;20(4):261-9.
- 5. Heponiemi T, Elovainio M, Presseau J, et al. General practitioners' psychosocial resources, distress, and sickness absence: a study comparing the UK and Finland. Fam Pract. 2014;31(3):319-24.
- 6. Zwack J, Schweitzer J. If Every Fifth Physician Is Affected by Burnout, What About the Other Four? Resilience Strategies of Experienced Physicians. Acad Med. 2013;88(3):382-9.
- 7. Lambert T, Smith F, Goldacre M. GPs' job satisfaction: doctors who chose general practice early or late. Brit J Gen Pract. 2013;63(616):e726-e33.
- 8. Halbesleben JRB. Patient reciprocity and physician burnout: what do patients bring to the patient-physician relationship? Health Serv Manage Res. 2006;19(4):215-22.
- 9. Walocha E, Tomaszewski KA, Wilczek-Ruzyczka E, et al. Empathy and burnout among physicians of different specialities. Folia Med Carco. 2013;53(2):35-42.
- 10. Anagnostopoulos F, Liolios E, Persefonis G, et al. Physician burnout and patient satisfaction with consultation in primary health care settings: evidence of relationships from a one-with-many design. J Clin Psychol Med S 2012;19(4):401-10.
- 11. Gibson J, Checkland K, Coleman A, et al. Eighth National GP Worklife Survey. Manchester, UK: Policy Research Unit in Commissioning and the Healthcare System (PRUComm). 2015.
- 12. Doran N, Fox F, Rodham K, et al. Lost to the NHS: a mixed methods study of why GPs leave practice early in England. Brit J Gen Pract. 2016:e128.
- 13. Spooner S, Gibson J, Rigby D, et al. Stick or twist? Career decision-making during contractual uncertainty for NHS junior doctors. Brit Med J Open. 2017;7(1):e013756. Epub 2017/01/27.
- 14. Epstein RM. Realizing Engel's biopsychosocial vision: resilience, compassion, and quality of care. International journal of psychiatry in medicine. 2014;47(4):275-87. Epub 2014/08/03.
- 15. Lown M, Lewith G, Simon C, et al. Resilience: what is it, why do we need it, and can it help us? Br J Gen Pract. 2015;65(639):e708-e10.
- 16. Lee FJ, Stewart M, Brown JB. Stress, burnout, and strategies for reducing them: what's the situation among Canadian family physicians? Can Fam Physician. 2008;54(2):234-5.

- 17. Johnson J, Panagioti M, Bass J, et al. Resilience to emotional distress in response to failure, error or mistakes: A systematic review. Clin Psychol Rev 2016;52:19-42. Epub 2016/12/06.
- 18. Robertson HD, Elliott AM, Burton C, et al. Resilience of primary healthcare professionals: a systematic review. Br J Gen Pract 2016;66(647):e423-33. Epub 2016/05/11.
- 19. Panagioti M, Panagopoulou E, Bower P, et al. Controlled Interventions to Reduce Burnout in Physicians: A Systematic Review and Meta-analysis. JAMA internal medicine. 2017;177(2):195-205. Epub 2016/12/06.
- 20. West CP, Dyrbye LN, Erwin PJ, et al. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. Lancet. 2016;388(10057):2272-81. Epub 2016/10/04.
- 21. Jensen PM, Trollope-Kumar K, Waters H, et al. Building physician resilience. Can Fam Physician 2008;54(5):722-9. Epub 2008/05/14.
- 22. Lemaire JB, Wallace JE. Not all coping strategies are created equal: a mixed methods study exploring physicians' self reported coping strategies. BMC Health Serv Res. 2010;10(208):1472-6963.
- 23. Matheson C, Robertson HD, Elliott AM, et al. Resilience of primary healthcare professionals working in challenging environments: a focus group study. Br J Gen Pract 2016;66(648):e507-15. Epub 2016/05/11.
- 24. Cheshire A, Ridge D, Hughes J, et al. The personal is political: influences on GP coping and resilience. Brit J Gen Pract. 2017;In press.
- 25. Baird B, Charles A, Honeyman M, et al. Understanding pressures in general practice. London: The Kings Fund, 2016.
- 26. Minichiello V, Aroni R, Hays T. In-depth Interviewing: Principles, Techniques, Analysis. . Melbourne: Longman Cheshire; 1995.
- 27. Stokes D, Bergin R. Methodology or methodolatry: An evaluation of focus groups and depth interviews. Qual Market Res. 2006;9(2):26-36.
- 28. Morse JM. The Significance of Saturation. Qual Health Res. 1995;5(2):147-9.
- 29. Charmaz K. Grounded theory: objectivist and constructivist methods. In: Denzin N, Lincoln Y, editors. Handbook of qualitative research 2nd ed. Thousand Oaks: Sage; 2000.
- 30. Bowling A. Research Methods in Health: Investigating Health and Health Services. Buckingham, UK: Open University Press; 1997.
- 31. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77-101.
- 32. QSR International. NVivo 9. 2011.
- 33. NHS Digital. General and Personal Medical Services, England September 2015 March 2016 Surrey, UK: The Health and Social Care Information Centre, 2016.
- 34. SSRS. 2015 Commonwealth Fund International Survey of Primary Care Physicians in 10 Nations. New York: The Commonweath Fund, 2015.
- 35. O'Reilly M, Parker N. 'Unsatisfactory Saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. Qual Res. 2012.

- 36. Matthews-King A. GPs to access mental health support from January Pulse. 2016 | 22 November 2016.
- 37. Ballatt J, Campling P. Intelligent Kindness: Reforming the Culture. London: rcpsych publications; 2001.
- 38. Minford E. Resilience Friend or Foe?: Action for NHS wellbeing; 2015 [cited 2017 February 2017]; Available from: <a href="http://www.nhswellbeing.org/2015/09/resilience-friend-or-foe/">http://www.nhswellbeing.org/2015/09/resilience-friend-or-foe/</a>.
- 39. Murray M, Murray L, Donnelly M. Systematic review of interventions to improve the psychological well-being of general practitioners. BMC Fam Pract. 2016;17(1):36.
- 40. The Primary Care Workforce Commission. The future of primary care: creating teams for tomorrow. Leeds, UK: Health Education England, 2015.
- 41. Lentza V, Montgomery AJ, Georganta K, et al. Constructing the health care system in Greece: responsibility and powerlessness. Brit J Health Psych. 2014;19(1):219-30.
- 42. Linzer M, Poplau S, Grossman E, et al. A Cluster Randomized Trial of Interventions to Improve Work Conditions and Clinician Burnout in Primary Care: Results from the Healthy Work Place (HWP) Study. J Gen Intern Med. 2015;30(8):1105-11.