Resilience in Critical Care: Elucidating the Experiences of Medical Staff.

A Qualitative Study

Thesis submitted in partial fulfilment of the requirement for the degree of

Doctorate of Clinical Psychology (DClinPsy)

Cardiff University

South Wales Doctoral Programme in Clinical Psychology

2017

Josephine Allen
List of Contents

Acknowledgements ........................................................................................................... 8
Thesis Summary .................................................................................................................. 9
Declaration ............................................................................................................................. 11

Paper 1: Systematic Review and Meta-synthesis .............................................................. 12

  Abstract ............................................................................................................................ 13
  Introduction ....................................................................................................................... 14
  Methodology ..................................................................................................................... 16
    Systematic Review ......................................................................................................... 16
    Quality Appraisal .......................................................................................................... 17
    Meta-synthesis ............................................................................................................. 18
  Results ............................................................................................................................. 22
    Systematic Review ......................................................................................................... 22
    Description of Included Studies ..................................................................................... 23
    Meta-Synthesis: Theoretical Interpretations .................................................................. 26
      Emotional attachment and distress ............................................................................ 29
      Self-preservation .......................................................................................................... 30
      Finding Replenishment ............................................................................................... 32
      Being Supported .......................................................................................................... 34
      Worldview and Culture ............................................................................................... 35
  Discussion ....................................................................................................................... 36
    Strengths and Limitations of the meta-ethnography ...................................................... 37
    Implications of this meta-ethnography .......................................................................... 39
  References ....................................................................................................................... 40
Paper 2: Empirical Study

Abstract

Introduction

Methodology

Design

Participants

The researcher

Procedure

Recruitment and Sampling

Interview process

Data Analysis

Coding

Memo-writing

Rigour

Ethical Considerations

Results

The impact of competing demands within the intensivist role

Clinical role of the intensivist

Managerial role of the intensivist and the impact of the system

Self-Resilience as continuous movement between connection and protected disconnection

Connecting to self: vulnerability in emotional experience

Connecting to patients and their vulnerabilities

Disconnecting to protect self from vulnerability

Achieving an equilibrium in self-resilience
Relational Resilience ................................................................. 69

The development of resilience .............................................. 70

Resilience as inherent within personality ............................... 71

Habituation: Resilience developing over time within the role of CCU physician ...................................................... 71

Discussion .................................................................................. 72

The impact of the intensivist role .......................................... 73

Self-Resilience ........................................................................... 75

Relational Resilience ................................................................. 77

Implications for Practice ............................................................ 78

Implications for future research .............................................. 80

Limitations ................................................................................. 81

References ................................................................................... 82

Paper 3: A Critical Reflection on the research process ............... 88

Introduction ............................................................................... 89

The origins of the research idea .............................................. 89

The systematic review and meta-synthesis ........................... 92

Additional rationale ................................................................. 92

Searching the literature ......................................................... 93

Critically appraising the studies .......................................... 96

Conducting a meta-synthesis of the studies ......................... 98

Conclusions and implications ............................................. 101

The empirical research study ................................................. 102

Developing the research ....................................................... 102
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rationale for the use of grounded theory as a qualitative approach</strong></td>
<td>104</td>
</tr>
<tr>
<td><strong>Ethics</strong></td>
<td>105</td>
</tr>
<tr>
<td><strong>Recruitment</strong></td>
<td>107</td>
</tr>
<tr>
<td><strong>Interviews</strong></td>
<td>109</td>
</tr>
<tr>
<td>The interview schedule</td>
<td>109</td>
</tr>
<tr>
<td>The experience of interviewing</td>
<td>111</td>
</tr>
<tr>
<td>Theoretical sampling</td>
<td>115</td>
</tr>
<tr>
<td>Participants’ experience of interviews</td>
<td>117</td>
</tr>
<tr>
<td><strong>Analysis</strong></td>
<td>118</td>
</tr>
<tr>
<td>Transcribing</td>
<td>118</td>
</tr>
<tr>
<td>Coding and Memos</td>
<td>118</td>
</tr>
<tr>
<td><strong>Further psychological consideration of the developed theory</strong></td>
<td>120</td>
</tr>
<tr>
<td>Psychological Resilience</td>
<td>121</td>
</tr>
<tr>
<td>Development of resilience: A psychological consideration</td>
<td>122</td>
</tr>
<tr>
<td>Psychodynamic and psychological interpretation of the theory of resilience</td>
<td>124</td>
</tr>
<tr>
<td><strong>Rigour and Reflexivity</strong></td>
<td>126</td>
</tr>
<tr>
<td>Critical evaluation of the research</td>
<td>127</td>
</tr>
<tr>
<td>Conclusions and implications</td>
<td>127</td>
</tr>
<tr>
<td><strong>My learning</strong></td>
<td>131</td>
</tr>
<tr>
<td><strong>Dissemination</strong></td>
<td>131</td>
</tr>
<tr>
<td>References</td>
<td>133</td>
</tr>
</tbody>
</table>
Appendices........................................................................................................................................140

Appendix 1: Journal of the Intensive Care Society author guidelines..............141
Appendix 2: CASP checklist for qualitative research – completed example...147
Appendix 3: Inclusion and exclusion criteria for systematic review..............152
Appendix 4: Cardiff University Sponsorship confirmation letter...............153
Appendix 5: NHS Research and Development ethical approval letters........157
Appendix 6: Research Protocol.................................................................................175
Appendix 7: Email sent to Occupational Health Services requesting their
support.......................................................................................................................181
Appendix 8: Invitation sent to prospective principle investigators..............183
Appendix 9: Email invitation to participate in research sent to intensivists via
principle investigators...............................................................................................186
Appendix 10: Participant information sheets......................................................188
Appendix 11: Participant consent form.................................................................194
Appendix 12: Participant debrief sheet.................................................................196
Appendix 13: Interview schedule..........................................................................199
Appendix 14: Interview schedules with amendments.................................201
Appendix 15: Confidentiality agreement between researcher and
transcriber..................................................................................................................205
Appendix 16: Transcript passage with second researcher codes..............206
List of Tables

Paper 1: Systematic Review and Meta-synthesis

Table 1: Search Terminology used for database searches................................17
Table 2: Noblit and Hare’s (1988) stages of meta-ethnography..............20
Table 3: Studies included in meta-synthesis...........................................25
Table 4: Synthesis of concepts and quotes from primary studies.............26

Paper 2: Empirical Study

Table 1: Inclusion Criteria for participation in the research study............51

List of Figures

Paper 1: Systematic Review and Meta-synthesis

Figure 1: PRISMA flow diagram depicting number of studies identified, screened, excluded and included..........................................................21

Paper 2: Empirical Study

Figure 1: Pictorial representation of vulnerability and resilience in intensivists..........................................................73
Acknowledgements

Firstly, I would like to thank my supervisors, Dr Victoria Samuel and Dr Julie Highfield whose ongoing support, guidance and connections have been invaluable throughout this research process. Their connections not only facilitated this research but reached out to Dr Gillian Colville to whom I also owe my thanks for her generosity in sharing her research manuscript prior to its publication, inspiring the direction of the study. In addition, I would like to extend my gratitude to the intensivists who acted as principle investigators in addition to their clinical and managerial roles.

I am ever grateful to those intensivists who gave their time to be interviewed for the empirical research and approached this study with insightful openness and a willingness to engage in the process. I remain in awe of the work you do, of your resilience and of the insight you hold into your internal experience.

To my family, I am eternally grateful for your unwavering support, understanding and love. In particular, to my sister, the most resilient woman I know, whose time of vulnerability inspired this research and nourished a desire within me to understand and support her experience. Finally, an enormous thank you to my fiancé, Jack, whose unfaltering love, encouragement and belief in me has nurtured my own resilience and kept me going throughout this process.
Thesis Summary

Resilience in Critical Care: Elucidating the Experiences of Medical Staff.

A Qualitative Study

Josephine Allen
Doctorate of Clinical Psychology
Cardiff University; South Wales Doctoral Programme in Clinical Psychology
May 2017

This thesis has been written in the format of three distinct yet connecting papers. Papers 1 and 2 have been written for submission to the Journal of the Intensive Care Society whose author guidelines can be seen in Appendix 1.

Paper 1 presents a systematic review and appraisal of the qualitative literature regarding critical care medical staff experiences of distress and resilience. Nine studies met the inclusion criteria and were subjected to a meta-synthesis of the qualitative data adopting a meta-ethnographic approach. Through interpretation of the concepts within the primary papers, a wider explanatory theory was developed describing an internal conflict within critical care staff between emotional attachment and self-protective disconnection. Implications of this theory were discussed.

Paper 2 presents a qualitative exploration of critical care consultants’, frequently known as ‘intensivists’, experience of working in the potentially emotionally demanding and challenging environment of critical care. The aim of this empirical research was to elucidate resilience within the experience of intensivists. Semi-structured interviews were conducted with eleven intensivists working in critical care units across Wales.
The data from transcribed interviews was analysed employing a constructivist grounded theory methodology. A theoretical conceptualisation of the relationship between resilience and vulnerability within intensivists was developed, offered and discussed with consideration to current research. Implications of this theory in relation to the potential to encourage resilience and wellbeing within the intensivist population were discussed.

Paper 3 offers a critical reflection upon the entirety of the research process and as such will not be submitted for publication. This paper presents the researcher’s reflections on engaging with the process of conducting qualitative research in addition to further evaluation of the review and empirical study. Implications of the research are expanded upon in relation to clinical practice and the wider organisational culture within the NHS.
DECLARATION

This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is being submitted concurrently in candidature for any degree or other award.

Signed ………………………………………………………(candidate)    Date ……………………………

STATEMENT 1

This thesis is being submitted in partial fulfillment of the requirements for the degree of DClinPsy

Signed……………………………………………………………(candidate)    Date ……………………………

STATEMENT 2

This thesis is the result of my own independent work/investigation, except where otherwise stated, and the thesis has not been edited by a third party beyond what is permitted by Cardiff University's Policy on the Use of Third Party Editors by Research Degree Students. Other sources are acknowledged by explicit references. The views expressed are my own.

Signed……………………………………………………………(candidate)    Date ……………………………

STATEMENT 3

I hereby give consent for my thesis, if accepted, to be available online in the University’s Open Access repository and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed………………………………………………………………..(candidate)    Date ……………………………

STATEMENT 4: PREVIOUSLY APPROVED BAR ON ACCESS

I hereby give consent for my thesis, if accepted, to be available online in the University’s Open Access repository and for inter-library loans after expiry of a bar on access previously approved by the Academic Standards & Quality Committee.

Signed………………………………………………………………..(candidate)    Date ……………………………
Paper 1: Systematic Review and Meta-synthesis

Distress and Resilience in Critical Care professionals: A systematic review and meta-synthesis of the qualitative data.

Josephine Allen

Abstract word count: 174
Main paper word count: 4670
Total word count: 4844
(excluding tables, figures and references)
Abstract

**Background:** Previous research recognises a high presence of burnout and posttraumatic stress across critical care medical professions. The aim of this review was to enhance our understanding of the interaction between distress and resilience experienced by critical care medical staff.

**Methodology:** A systematic search was conducted of four databases (PsychInfo; Medline; CINAHL; Web of Science) from inception until March 2017. Qualitative research exploring distress and resilience amongst medical staff working in adult medical critical care units was identified. Identified studies were subject to quality assessment. Data was synthesised using meta-ethnography.

**Results:** 9 studies were included in the synthesis following screening of 4560 titles, 322 abstracts, and 37 full texts. Five overarching concepts were identified through meta-ethnographic synthesis of the data: Emotional attachment and distress; Self-preservation; Finding Replenishment; Being Supported; Worldview and Culture. An overarching theory was developed of the internal conflict between the pain of emotionally attaching to patients and the self-protection of emotional disconnection.

**Conclusions:** This review provides a deeper understanding into the balance of distress and resilience experienced by critical care professionals.

**Keywords:** Critical Care; Nurses; Physicians; Wellbeing; Psychological Resilience; Coping; Stress; PTSD; Burnout; Meta-synthesis; Qualitative; Systematic Review
Introduction

An established body of research has begun to recognise the presence of burnout across the medical profession\(^1\). For example, The Point of Care Foundation (POCF, 2016) report raised concerns relating to the negative effects of burnout upon decision making, patient safety and patient experience\(^2\).

Intensive Care, or Critical Care Units (CCUs) are regional units within medical hospitals which provide specialist care for the most critically ill patients. CCUs are highly stressful, emotionally charged environments which are physically, intellectually and emotionally challenging\(^3\). A recent systematic review of the quantitative data has identified a clear correlation between working in CCUs and the risk of emotional distress\(^3\). A developing research base reports high levels of burnout across CCU professions, with evidence identifying its presence amongst both physicians and nurses\(^4\)-\(^9\). The impact of working as medical staff within a CCU is far reaching with research demonstrating that staff experience not only burnout, but also high levels of posttraumatic stress\(^10\)-\(^12\) and depression\(^13\). A recent study by Colville et al (2016)\(^14\) reported a significant proportion of medical staff across adult and paediatric critical care and acute care disciplines report symptoms of post-traumatic stress (51.5%) and burnout (59.8%) which directly relate to experiences within the workplace.

In CCU, staff are exposed to the ongoing and unremitting suffering of patients\(^15\) and relatives. In addition, they are continuously engaged in ethical\(^16\) and end-of-life decision making, factors associated with decreased job satisfaction, emotional and psychological burnout\(^17\). Moral distress is defined as a state of psychological disequilibrium experienced as a result of not acting in concordance with moral decisions due to institutional constrictions\(^18\). In such emotionally charged medical
environments, professionals frequently encounter experiences which may engender moral distress, and lead them to engage in avoidance behaviour\textsuperscript{19} in an attempt to decrease this feeling. Research with Spanish critical care nurses demonstrated a relationship between burnout symptoms and engaging in the purposeful avoidance of thoughts, feelings and sensations known as experiential avoidance\textsuperscript{20}.

However, the research regarding the impact of working in CCU is not consistent. In a recent systematic review of the research, Van Mol et al found an increased risk of experiencing emotional distress for staff working in CCUs, however a lower incidence of burnout, compassion fatigue and posttraumatic stress was identified when compared with staff in other wards\textsuperscript{3}. Van Mol et al (2015) hypothesise that these contradictory findings may indicate the presence of personal and environmental mediating factors or influences\textsuperscript{3}. It is suggested that personal factors which may mediate the impact of emotional distress could include resilience, emotional intelligence, the ability to empathise and one’s own coping strategies\textsuperscript{3}. Perceiving oneself to be resilient has been demonstrated to be protective against burnout and posttraumatic stress\textsuperscript{14}. In relation to external factors, recent research indicates that environmental and organisational factors are significantly associated with stress and fatigue\textsuperscript{8, 21}, supporting Van Mol et al’s (2015) conclusion. Specific organisational factors, such as being able to debrief or speak to senior staff, has been associated with reduced risks of experiencing burnout and posttraumatic stress\textsuperscript{14}.

As a result of this contradictory evidence in relation to the presence of distress within CCU staff and the influence of personal resources and qualities, further exploration into this area is required\textsuperscript{3}. The aim of this review was to draw together disparate findings within the current research to deepen the quality of our understanding of how
personal resources of medical staff interact with their exposure to the emotionally charged environment of the CCU. The review will focus on qualitative papers so as to draw on the personal experiences and perspectives of CCU staff and disentangle the complex and subtle factors which may protect against burnout.

Methodology

Systematic Review

A database search was conducted to explore the qualitative literature around the emotional impact and experience of resilience on medical staff who work in an adult general medical CCU. The process of identification, selection and critical appraisal of relevant studies for further analysis and synthesis was undertaken in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance22 (see Figure 1 for flow chart). Studies were excluded if they were conducted in paediatric and other specialist CCUs, published in non-peer reviewed journals, adopted quantitative and mixed methodologies or if the studies related to specific epidemics. The search was carried out across four electronic databases from the date of their inception until March 2017: PsycInfo; Medline; CINAHL; Web of Science. The search was limited to texts written in the English language. The search terms used incorporated keywords for all four databases as well as subject headings used to index or categorise journals on the PsycInfo and Medline databases. Full search terminology can be seen in Table 1. In addition, reference lists of identified papers were searched for other potentially relevant articles. The identified records were reviewed and titles, abstracts or full texts were screened by the author. Articles which did not meet the inclusion criteria were excluded.
Table 1: Search Terminology used for database searches.

<table>
<thead>
<tr>
<th>Search Terminology</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject</strong></td>
</tr>
<tr>
<td>Critical Care; Intensive Care; Physicians; Nurses; Consultants; Burnout, Professional; Occupational Stress; Job Satisfaction; Stress, Psychological; Depression; Major Depression; Stress Disorders, Post-Traumatic; Compassion Fatigue; Resilience, Psychological; Adaptation, Psychological; Coping Behaviour; Well Being</td>
</tr>
<tr>
<td><strong>Keywords</strong></td>
</tr>
<tr>
<td>Intensive Care; Critical Care; ICU; doctor*; consultant*; intensivist*; nurs*; burnout; posttraumatic stress; PTSD; depress*; compassion fatigue; stress; resilient*; cop*; well being</td>
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**Quality Appraisal**

The quality of the identified studies was subsequently critically appraised against the Critical Appraisal Skills Programme (CASP) qualitative research checklist\(^{(23)}\) by the author. The papers were independently second-rated by a trainee clinical psychologist not affiliated with the study. Each made independent decisions relating to the inclusion or exclusion of studies. In addition to methodological quality, particular attention was paid to the clarity of concept descriptions within studies due to the centrality of concepts within meta-ethnography\(^{(24)}\). The appraisal process and results were subsequently discussed between the two psychologists and any differences considered, leading to a unified decision regarding the papers to include in the study.
Meta-synthesis

There are a number of differing methodologies which can be employed to synthesise qualitative data and underpinned by distinct epistemological understandings moving between constructivist (idealism) or realist (reality exists separate to human constructions) positions\textsuperscript{25}.

The meta-ethnography approach, as originally outlined by Noblit and Hare (1988)\textsuperscript{24} and further described by Britten et al (2002)\textsuperscript{26}, was used in this paper to synthesise the qualitative data within this study. This approach was adopted due to its flexibility in being able to synthesise data which has been analysed in the primary studies using differing qualitative methodologies\textsuperscript{25, 26}. Meta-ethnography is a methodology which adopts an approach of objective idealism\textsuperscript{24-26}. Meta-ethnography has an interpretative emphasis on exploring commonalities within the data. This interpretative process develops an overarching theoretical understanding which embodies a greater understanding than standalone concepts within primary papers.

Following the identification of relevant research, the meta-ethnography followed a process of 5 steps\textsuperscript{24, 26} (see table 2). Firstly, all included papers were carefully read through and the main concepts identified. The details of each study’s settings and participants, including the profession of the participants were recorded. The second stage involved each paper being explored to seek the relationships between the concepts within them, observing commonalities. To enable a comparison of the concepts, a grid was developed in which the concepts and the original studies theories were collated enabling the formation of overarching concepts which incorporated all pertinent concepts from each study\textsuperscript{26}. The wording in the original papers was kept to ensure the meaning within each concept was maintained\textsuperscript{26}. Adhering to Britten et al’s
(2002) methodology, which draws on Schutz (1962), this grid identified first order constructs, relating to ordinary understandings, and second-order constructs, referring to developing theoretical explanations. Moving into the third stage the concepts were drawn together, translating the papers. Each word and concept within the grid was carefully contemplated and reflected upon to ensure each concept within each study was reflected within the overall key concepts developed by the researcher. In doing this, the names of some of the concepts within the primary papers were used as the names of the developed key concepts whilst for others, new concept names were developed. In reviewing the developing key concepts and their engulfed original concepts, it was possible to begin to perceive the reciprocal relationships between them. From this understanding, the translations were synthesised by developing third-order theoretical interpretations, in the fourth stage of synthesis. The fifth stage of expressing the synthesis was achieved through building a line of argument describing the researcher’s understandings of the reciprocal relationships between the key concepts. This line of argument aimed to explain the wider picture encompassed within the theoretical interpretations within the data.
Table 2: Noblit and Hare’s (1988)\textsuperscript{24} stages of meta-ethnography (cited by Britten et al (2002)\textsuperscript{26} pp. 210)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Getting Started</td>
<td></td>
</tr>
<tr>
<td>2. Deciding what is relevant to the initial interest</td>
<td></td>
</tr>
<tr>
<td>3. Reading the studies</td>
<td></td>
</tr>
<tr>
<td>4. Determining how the studies are related</td>
<td></td>
</tr>
<tr>
<td>5. Translating the studies into one another</td>
<td></td>
</tr>
<tr>
<td>6. Synthesising translations</td>
<td></td>
</tr>
<tr>
<td>7. Expressing the synthesis</td>
<td></td>
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</tbody>
</table>
Figure 1: PRISMA flow diagram depicting number of studies identified, screened, excluded and included.
Results

Systematic Review

Altogether, 4548 studies were identified by the database search. Each of these titles were screened for relevance alongside 12 further studies identified from citations. 4218 studies were subsequently excluded. Of the remaining 322 studies, 285 were excluded following screening of abstracts. The reasons for exclusions at this stage included the subjects of papers being irrelevant to the aims of this paper, being published in a non-peer-reviewed journal, being written in a non-English language and being of a quantitative or mixed methodology. A further 26 papers were excluded after screening full texts as they did not meet this studies aims or inclusion criteria. Specifically, the main reason for exclusion at this stage was that the papers did not include reference to either the personal impact of working in CCU or to coping. Papers were also excluded at this stage due to a previously unnoticed mixed methodology and the inclusion of paediatric or other specialist CCU settings.

A total of 11 papers were appraised using the CASP Qualitative Research Checklist by the author and a second appraiser, a trainee clinical psychologist unrelated to the study. It was agreed that studies would only be included if they scored 8/10 or higher on the CASP measure of quality. Both appraisers agreed that 9 studies would be included in the review (scores can be seen in Table 3). Of these, 6 studies were of an extremely high quality and rated 10/10. Velarde-Garcia et al (2016) scored 9/10 for quality due to an inadequate justification of the research design whilst Mealer et al (2012) scored 9/10 due to an inadequate consideration of the research implications. Wahlin et al (2010) was only just included with a score of 8/10 due to their failure to
consider the participant-researcher relationship and no discussion regarding the contribution and implications of the study.

Two studies were excluded at this stage due to their scores of 7/10. Both excluded studies did not adequately demonstrate the appropriate recruitment strategy, nor did they consider ethical issues. In addition, one of these studies did not consider the relationship between researcher and participants, whilst the other did not discuss the value and contribution of the research.

**Description of Included Studies**

The included studies explored the experiences of 132 nurses and 24 physicians. Whilst all studies included nurses, only two studies included the perspectives of physicians in their participant sample\(^\text{30, 36}\) whilst the remaining seven papers focused on nurses as the sole population\(^\text{28, 29, 31-35}\). Included in the review were studies from a variety of countries: UK (n=2); USA (n=2); Australia (n=1); France (n=1); Norway (n=1); Spain (n=1); Sweden (n=1). All 9 studies used interviews as their process of data collection. When approaching the interview process, seven studies employed face to face individual interviews with four being semi-structured\(^\text{28, 30-32}\) whilst two were open-ended\(^\text{33, 36}\) and one initially adopted unstructured interviews and moved on to semi-structured\(^\text{34}\). Velarde-Garcia et al (2016) conducted interviews over the telephone\(^\text{34}\). Adopting a different approach, Hov et al (2007) collected data through 16 hours of focused, non-structured group interviews across 11 weeks\(^\text{29}\). In analysing the data, Siffllet et al (2015)\(^\text{32}\) used a Grounded Theory approach, Mealer et al (2012)\(^\text{35}\) employed Constructivist Epistemological Framework whilst Wahlin et al (2010)\(^\text{36}\) used the Empirical Phenomenological Psychological method and Laurent et al (2014)\(^\text{30}\)
used Interpretative Phenomenological Analysis. The remaining five studies used a Phenomenological Approach\textsuperscript{28, 29, 31, 33, 34}. The details of each study and their quality rating can be found in Table 3.

Four studies explored the experience of nurses’ reactions to patient death and grief\textsuperscript{28, 31, 33, 34}. Hov et al (2007) explored the experience of nurses in withholding curative treatment\textsuperscript{29}. In a more focused consideration of the impact of working in CCU, Laurent et al (2014) considered the psychological repercussions of making errors in critical care physicians and nurses from a psychodynamic perspective\textsuperscript{30}. Recognising the presence of both distress and coping in this population, Mealer et al (2012) looked at both resilience and posttraumatic stress\textsuperscript{35} whilst Siffleet et al (2015) explored emotional wellbeing\textsuperscript{32} in CCU nursing populations. In a similar focus Wahlin et al (2010) endeavoured to explore empowerment in both critical care physicians and nurses\textsuperscript{36}. 
Table 3: Included studies

<table>
<thead>
<tr>
<th>STUDY TITLE</th>
<th>SAMPLE</th>
<th>DATA COLLECTION &amp; ANALYSIS</th>
<th>ANALYSIS</th>
<th>SETTING</th>
<th>COUNTRY</th>
<th>CASP QUALITY RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>HINDERER (2012)</td>
<td>6 critical care nurses</td>
<td>Semi-structured face-to-face interviews</td>
<td>Phenomenological approach</td>
<td>Adult ICU</td>
<td>USA</td>
<td>10/10</td>
</tr>
<tr>
<td>HOV ET AL (2007)</td>
<td>14 nurses</td>
<td>Focused, non-structured group interviews</td>
<td>Phenomenological approach</td>
<td>Adult ICU</td>
<td>Norway</td>
<td>10/10</td>
</tr>
<tr>
<td>LAURENT ET AL (2014)</td>
<td>20 physicians and 20 nurses: total of 40</td>
<td>Semi-structured face-to-face interviews</td>
<td>Interpretative Phenomenological Analysis</td>
<td>Adult ICUs in urban teaching hospitals across two cities in France</td>
<td>France</td>
<td>10/10</td>
</tr>
<tr>
<td>MEALER ET AL (2012)</td>
<td>27 ICU nurses</td>
<td>Semi-structured telephone interviews</td>
<td>Constructivist Epistemological Framework</td>
<td>Nurses had volunteered from across USA</td>
<td>USA</td>
<td>9/10</td>
</tr>
<tr>
<td>SHORTER AND STAYT (2010)</td>
<td>8 nurses</td>
<td>Semi-structured interviews</td>
<td>Phenomenological approach</td>
<td>Adult ICU in a large teaching hospital in UK</td>
<td>USA</td>
<td>10/10</td>
</tr>
<tr>
<td>SIFFLEET ET AL (2015)</td>
<td>15 nurses</td>
<td>In-depth open-ended interviews</td>
<td>Grounded Theory</td>
<td>18 bed adult ICU</td>
<td>UK (England)</td>
<td>10/10</td>
</tr>
<tr>
<td>STAYT (2009)</td>
<td>12 nurses</td>
<td>In-depth face-to-face unstructured and semi-structured interviews</td>
<td>Phenomenological approach</td>
<td>7 bed adult ICU</td>
<td>Australia</td>
<td>10/10</td>
</tr>
<tr>
<td>VELARDE-GARCIA ET AL (2016)</td>
<td>22 nurses</td>
<td>In-depth face-to-face unstructured and semi-structured interviews</td>
<td>Phenomenological approach</td>
<td>ICU</td>
<td>UK (England)</td>
<td>10/10</td>
</tr>
<tr>
<td>WAHLIN ET AL (2010)</td>
<td>4 registered nurses, 4 enrolled nurses, 4 physicians: 12 total</td>
<td>Open-ended interviews</td>
<td>Empirical Phenomenological Psychological (EPP) method</td>
<td>Two general ICUs</td>
<td>Spain</td>
<td>9/10</td>
</tr>
</tbody>
</table>

**ANALYSIS**

- Phenomenological approach
- Interpretative Phenomenological Analysis
- Constructivist Epistemological Framework
- Grounded Theory
- Phenomenological approach
- Phenomenological approach
- Phenomenological approach
- Empirical Phenomenological Psychological (EPP) method
- Two general ICUs
Meta-Synthesis: Theoretical Interpretations

From the synthesis of the qualitative studies, five overarching concepts were identified: Emotional attachment and distress; Self-preservation; Finding Replenishment; Being Supported; Worldview and Culture. Table 4 demonstrates the process of synthesis and details the data from primary studies, including primary themes, concepts reported in the primary authors’ own words and participant quotes, which feed into the five overarching concepts.

Table 4: Synthesis of concepts and quotes from primary studies

<table>
<thead>
<tr>
<th>Synthesised Concepts</th>
<th>Example Quotes from the Primary Studies</th>
<th>Second-Order Interpretations / Theories derived from the Primary Studies (written in the primary authors' words)</th>
<th>Third-order Interpretations / Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional attachment and distress</td>
<td>'I think one of the job hazards we have is accumulated grief' (page 1448)</td>
<td>Coping with the ‘raw emotion triggered by patient death’ (page 256).</td>
<td>Internal conflict between emotionally attaching, risking distress, and self-preservation aimed to reduce the emotional impact and enable one to keep working.</td>
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<td></td>
<td>'It hurts too much to see so much death and so much misery, and not be able to do anything about it.' (page 1448)</td>
<td>'A critical care nurse’s grief experience is influenced by the level of engagement that the nurse had with the patient and their relatives.' (page 165).</td>
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<td>'I think the reason that families whose patients have died are so memorable is, I suppose that, if it comes to the point of bereavement, you’ve obviously put a lot of time in with them... you get to build a bond. I suppose you give a lot more of yourself into it as well and somehow feel connected to the family.' (page 1270)</td>
<td>'A patient’s death triggers certain responses in the nurses, such as sadness, sorrow, rage and frustration, and also relief... the emotional relations that nurses establish with their patients. These emotional bonds, sometimes defined by the nurses interviewed as attachment, cause certain professional and personal aspects to</td>
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<td>‘... the bonds that are established with the family ... are proportional to the amount of time spent caring for them and this has an emotional influence on you ...' (page 7)</td>
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<td>‘Yeah I definitely empathised with that young lad. I could really feel what he was going through and I totally shared his pain. But it was hard because I didn’t understand why I felt that involved with him...I didn’t feel sorry for him, it wasn’t sympathy that I was feeling for him, it was more empathy...I just felt grief</td>
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to protect self from distress.)

Stricken. And that’s why I remember it.’ 33 (page 1271)

‘Although I think [having a close bond] did help me to look after her, I think it did mean that it affected me a lot more than perhaps someone who didn’t know her… I think having a relationship with the patient makes it easier to look after them, and to a degree will help you look after that patient better, as you understand where they are coming from.’ 31 (page 163)

‘…if I have had any contact with him I take it worse than if I have seen him sedated from the start.’ 34 (page 7)

‘Often times I do think, what could I have done differently? Did I miss something? Was there a better way to have handled the situation? I think I do play it over in my head, after the crisis has passed.’ 35 (page 1448)

‘…I would like to put a barrier there, for a little self-defence, but it is very difficult…’ 34 (page 7)

‘I think I just have a wall. I mean, I like to be sad for the family [of the dying patient], but I can go be happy with my other family. If I have 2 patients, I’m not going to laugh with the family who has the dying patient, but I can cut that off and go with my other family, and they can tell me something that will make me laugh or smile.’ 28 (page 255)

‘you get kind of hardened to it… it doesn’t bother us as much’ 28 (page 255)

‘I can just separate myself. I think you have to separate yourself, or you will grieve over everybody.’ 28 (page 256)

‘…When you talk in medicine, you don’t talk at all about feelings.’ 30 (page 2374)

‘Recognize, but not feeling guilty otherwise that inhibits the action of care.’ 31 (page 2374)

‘Because you can’t get too emotional about things really – it makes me sound really cold… but a lot of the time, you do have to keep a distance in a way, because death happens so often on our unit. You’d be an emotional wreck if you let it bother you or affect you all the time.’ 31 (page 164)

‘I don’t get down on a lot of things. I let things fall off of me. I try to look on the bright side of everything.’ 35 (page 1448)

frequently intermix. This, in turn causes a major and excessive emotional burden 34 (page 8).

Professionals ‘experience psychological manifestations after his/her error…(which) disappeared gradually… In the long term…the error remains fixed in the professional’s memory 30 (page 2373).

‘Nurses disassociate emotionally themselves from a dying patient, and display complacency towards death as a means of coping with it and the associated grief.’ 31 (page 165).

‘The effects of shame and guilt were accompanied by defence mechanisms which served to reduce the emotional load and enabled the professional to continue working. On the other hand, these same defence mechanisms hinder the subject’s ability to acknowledge the error and to learn from it’ 30 (page 2376).

‘Issues of empathy and intimacy vs. self-preservation represent a paradox’ 33 (page 1273).
### Finding Replenishment

(Professional pride; self-care and balance; happiness, enjoyment and satisfaction [driving] emotional wellbeing; validating care episodes…finding meaning and perspective; caring for patients and families; achieving best care; close engaging relationship; feelings of doing good; nourishing (relational) encounters; Challenge, variety, speed and excitement; knowledge and skills; self-esteem/self-confidence [feeling valuable and safe].)

<table>
<thead>
<tr>
<th>Finding Replenishment</th>
<th>‘Well I feel like I have performed well, I have suctioned them out at the right time and I have turned them properly and their (blood) gases are good, they start the day a bit ahead of the eight ball…It just makes me feel good.’ (page 308)</th>
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<td>‘And then, just the feeling that you are doing something for people suffering from some illness or pain, and when you solve this and they get better. That’s a feeling that drives you to go on with this.’ (page 265)</td>
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<td>‘Even very tragic contacts with next of kin to patients who have died and things like that could generate very, very much for yourself as a person. It is not seldom that I think about next of kin to a patient who has died and discussions we have had…situations I think could contribute to…being a better human being even as a private person.’ (page 265)</td>
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<td>‘Because this is important to me…how I learn, how I feel that I’m growing in my tasks and can manage challenges better, I think.’ (page 266)</td>
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<td>‘Well, then it is that you feel safe and confident, this is also positive in some way, to feel safe in yourself… and in what you are doing.’ (page 266)</td>
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<td>‘The common meaning in all structures could be summarised in the essential structure that staff were empowered by both internal and external processes. Internal processes were feelings of doing good, increased self-esteem/self-confidence and increased knowledge and skills. External processes were nourishing encounters, excitement and challenge, well-functioning teamwork and a good atmosphere.’ (page 267)</td>
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<td>‘Delivering best care emerged as central to emotional wellbeing.’ (page 309).</td>
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### Being Supported

(Social network; emotional support, communication and connectivity; formal and informal support; teamwork; verbilisation; support and understanding of nurse coworkers.)

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<tr>
<th>Being Supported</th>
<th>‘It’s really liberating to talk about it in the end. When you start talking about your errors, well often the others talk about them too. That does some good, that frees you to speak…’ (page 2374)</th>
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<td>‘It was really good to sit down and talk about it rather than keep it into yourself and keep wondering what if.’ (page 1448)</td>
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<td>‘The support you give each other, the other colleagues you work with, know exactly what you’re going through, so quite often an informal chat in the coffee room is just as therapeutic.’ (page 164)</td>
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<td>‘The support of everybody, normally it is not just you involved with someone’s care, it’s a lot of people. It’s not just the doctors, it’s the physios…I think the support really helps; I know that there is always someone there, someone who can go further.’ (page 308)</td>
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<td>‘Working together, different professions, with the same goal in front of your eyes. And supporting each other in all directions. This is certainly the most important thing.’ (page 266)</td>
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<td>‘Nurses are reluctant to access formal support, but do value informal support structures within the workplace.’ (page 165).</td>
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<td>Support within the team is valued, both emotionally and practically.</td>
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### Worldview

<table>
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<th>Worldview</th>
<th>‘Over the years I’ve come to realize…death is a part of life.’ (page 256)</th>
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<td>‘The psychological characteristics of’</td>
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<td>Resilience is influenced by</td>
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The key concept identified throughout the studies was a sense of professionals striving to strike a balance between being connected to emotions and attached to patients within the CCU environment whilst protecting oneself from the distress created by this attachment and connection. This balance was present in 8 of the primary papers\\(^{28-35}\).

**Emotional attachment and distress**

Three papers discuss the importance professionals attributed to emotionally attaching to patients’ families\\(^{31, 33, 34}\). Within Shorter and Stayt’s (2010)\\(^{31}\) study, participants voiced their perception that building a relationship with a patient and their family is considered to be an essential part of nursing care in order to give the patient good care\\(^{31}\). This perception is mirrored within Stayt’s (2009)\\(^{33}\) study which reported that resilience that can be learned and that were present in the highly resilient ICU nurses included optimism, finding a resilient role model, developing active coping skills, social networks, exercising, developing a set of moral beliefs, and cognitive flexibility\\(^{36}\) (page 1449).

Culture

(Learning from errors; don’t talk at all about feelings; daring to show and discuss their feelings; teamwork; emotional support; communication and connectivity.)

- ‘I know logically that people die, that children die and it helps me to know that I may be able to help people process that and get through it.’\\(^{35}\) (page 1448)

- ‘To discuss the concept of death, dying etc – it’s not that difficult, whereas other people can find it really difficult... I think if you work in an environment where you see death and dying all the time, it becomes easier. I don’t think you can avoid thinking about your own mortality, or what it would be like if you were in that situation – and, you know, you just accept it.’\\(^{31}\) (page 164)

- ‘So, I feel that is very important that we all understand each other, this makes you work in an easier way. And if something happens, let’s say I don’t like what the other person does, I think we have to talk about it instead of talking to someone else behind us.’\\(^{36}\) (page 267)

- ‘We’re all responsible, that’s what creates this team culture.’\\(^{30}\) (page 2374)

- ‘I know logically that people die, that children die and it helps me to know that I may be able to help people process that and get through it.’\\(^{35}\) (page 1448)
professionals experienced a sense of satisfaction in the closeness of relationships\textsuperscript{33}. Correspondingly, such relational experiences were described as nourishing and empowering by both physicians and nurses within Wahlin et al’s (2010)\textsuperscript{36} study. Professionals reported that they found meaning and perspective through providing the best possible care for patients and families and further that this gave them a feeling of satisfaction and happiness\textsuperscript{32}. The authors of this study, Sifleet et al (2015), concluded that it was this satisfaction felt in providing best care which gave rise to emotional wellbeing within the nursing participants\textsuperscript{32}.

However, within these same studies and professional's narratives there is also a sense of the personal impact of caring, of the demands on one’s emotional wellbeing. Stayt (2009) discusses the relational intimacy with patients and families which was reported by nurses as being both satisfying and emotionally exhausting\textsuperscript{33}. Whilst considered a central aspect of the work within CCUs\textsuperscript{31}, emotionally attaching to a patient and a family was described as a risk by nursing participants across three studies exploring the experience of death and grief\textsuperscript{28, 31, 34}. Nurses within these studies experienced intensified personal distress and an unleashing of raw emotions following the death of a patient to whom they had emotionally attached\textsuperscript{28, 31, 34}.

\textit{Self-preservation}

Three studies explicitly described a process within which health care professionals engaged in strategies of self-preservation to protect themselves and avoid the emotional impact of the work\textsuperscript{30, 32, 33}. In their study exploring the psychological repercussions of making medical errors, Laurent \textit{et al} identified experiences of shame and guilt within 20 nurses and 20 physicians narratives which were experienced
alongside what the primary authors classified as ‘defense mechanisms’ aimed to reduce the emotional impact enabling professionals to cope and keep going. Six studies reported data within which both nurses and doctors spoke of ‘emotionally disconnecting’, ‘emotionally avoiding’ and ‘blocking out’ their distress as a way of coping. In protecting oneself from distress, professionals spoke of how they distance themselves from their own distress as well as distancing themselves both physically and emotionally from patients and families in order to keep an internal sense of staying in control.

Laurent et al (2014) described five ‘defense mechanisms’ which arose within the narratives of 20 nurses and 20 physicians: verbalisation; minimising; developing skills and knowledge; rejecting individual responsibility; and emotional avoidance. Disconnecting from or avoiding one’s own and others’ emotional experience was the most prominent method of protecting oneself which arose across six studies. Laurent et al (2014), however, reported that this was the least frequent strategy referred to within professionals’ narratives and in fact verbalisation, or talking with colleagues, was the most frequent method referred to in reducing the emotional impact. Verbalising ones’ experience and minimising the significance of mistakes were concepts which were discussed in equal amounts by both nurses and physicians within this research. Yet Laurent et al (2014) highlighted the differences between how physicians and nurses attempted to reduce the emotional impact in reporting that physicians referred more frequently than nurses to considering errors to be a learning opportunity through developing skills and knowledge, rejecting individual responsibility and engaging in emotional avoidance. Laurent et al (2014) concludes that these defense mechanisms protect the individual by lessening the emotional impact, allowing professionals to keep going, to keep treating patients and to keep working in
ICU[^30]. Mirroring this conclusion, such strategies of protecting oneself from distress are considered by Mealer et al (2012) to be active coping strategies vital to supporting resilience[^35].

Within participants’ narratives across seven studies there was a theme of continual movement between the need to emotionally attach and the need to disconnect[^28-33, 35]. Whilst Velarde-Garcia et al (2016) also described participants reporting feelings of intolerance stemming from unexpected deaths, they note that nurses perceived themselves to manage this experience not by disconnecting, but rather by dealing with their own expectations of recovery for each patient and assimilating within themselves the idea of death[^34]. The presence of this idea of movement between emotional attachment and disconnection within participant narratives across these studies, gave rise to what Stayt (2009) refers to as a ‘paradox’ of intimacy versus self-protection[^33] within the synthesis. Mealer et al (2012) concludes that resilient professionals managed this balance by drawing upon emotional intelligence and reflection to enable them to process intensely emotional experiences, allowing them to positively reframe the event in a way which demonstrates cognitive flexibility[^35].

**Finding Replenishment**

Amongst the challenges and emotional demands of working in CCU, professionals spoke of experiencing pride in their work[^29] which Mealer et al (2012) considered to foster resilience[^35]. The sense of caring for patients and families, connecting with them and feeling that one has done their best to care for people in life and death was present in five studies[^31-33, 35, 36]. Across these studies, participants reported an experience of validation in providing good care[^32] which engendered feelings of happiness,
satisfaction\textsuperscript{31-33}, empowerment\textsuperscript{36} and an overall emotional wellbeing\textsuperscript{32}. Wahlin et al (2010) report the presence of these ‘feelings of doing good’ in both nurses and physicians interviewed within their study and further consider these caring experiences as nourishing a sense of inner strength and power\textsuperscript{36}.

Wahlin et al (2010) describes at length the experience of empowerment within critical care nurses and physicians\textsuperscript{36}. Within this research, Wahlin et al (2010) recognises that rather than feeling overwhelming, professionals described the fast pace of CCUs to be exciting, challenging and empowering in the realisation of one’s ability to draw rapidly on knowledge and skills in reaction to a clinical situation\textsuperscript{36}. Across three papers such satisfying experiences were considered to nourish and empower CCU professionals\textsuperscript{36} driving emotional wellbeing\textsuperscript{31, 32}.

In addition to finding replenishment through the nourishing and empowering experiences of work, Mealer et al (2012) cite the value of self-care and balance to maintain emotional, psychological and physical health\textsuperscript{35}. The authors described the importance of sleep, nutrition, exercise and laughter in maintaining physical health, whilst leaving stress at work and recalling positive working experiences were judged to maintain emotional health\textsuperscript{35}. Adopting such coping mechanisms and engaging in spirituality were considered by Mealer et al (2012) as valuable in ensuring psychological health\textsuperscript{35}. In this way, Mealer et al (2012) deduced from their data that resilient professionals maintained an internal balance through ensuring to engage in acts of physical, emotional and psychological self-care\textsuperscript{35}. 
Being Supported

Laurent et al (2014) report the presence of a group strategy in sharing responsibility which they considered a collective defence against feeling the pain of accepting individual responsibility for a medical error and perhaps a death. However, there is also a protection within this group responsibility, a sense of being supported, of not being alone and of being alleviated from individual guilt and shame. The narrative of rejecting individual responsibility within this study was more present in the physicians who spoke of this shared responsibility as creating a team culture.

Conversely, nursing participants within Hov et al’s (2007) study describe a feeling of loneliness in the responsibility of providing care to patients where there is a question of withdrawing curative treatment. For these nurses, there was not a supportive culture but rather they described a culture fraught with dynamics of power and difficulties in communication which gave rise to struggles of control and responsibility between nurses and physicians.

However, being supported both emotionally and practically within the CCU team was recognised within six studies as a central component to facilitating the ability to cope with the personal distress experienced. Laurent et al (2014) described that within participants’ accounts the act of verbalising their role in a medical error with colleagues and family provided a sense of being freed from the emotional burden and of being supported, an experience equally present within the narratives of both nurses and physicians. Yet 23% of participants also engaged in emotional avoidance as they felt allowing themselves to experience guilt and shame would negatively impact on their ability to effectively work. Wahlin et al (2010) deduced from the narratives of both nurses and physicians that when there is a culture where professionals provide
each other with continuous support, both in the work role and emotionally through courageously talking about their feelings, this can nourish a sense of empowerment. Team work and social support networks were themes which emerged as pivotal in facilitating individual resilience and emotional wellbeing.

**Worldview and Culture**

The culture of being supported within the team appeared to be present throughout six of the studies. Moreover, within this culture there was a sense of shared worldviews. Here, the primary concepts meet where the culture within which group support and collective worldviews were central, was considered to influence resilience. Mealer et al’s (2012) concept of worldview is one which has been adopted as a concept for this synthesis. Most potently, participants described an acceptance of death and its inevitability which was common within CCU professionals across four studies, a worldview which Mealer et al (2012) associated with resilience. Conversely, in Mealer et al’s (2012) study, nurses who had experienced posttraumatic stress reported that they could not let go but rather held regrets about negative experiences and thoughts that they could have done something more for patients who died.
Discussion

This review provides a valuable insight into the experiences of medical staff working in CCUs. Through engaging in an interpretative synthesis of the available and relevant qualitative research using meta-ethnography, this paper presents an extended and deepened understanding of the distress and resilience within CCU staff recently highlighted within research\textsuperscript{3,14}. The present paper describes a theoretically wider interpretation of the available research which depicts a sense of CCU professionals striving to strike a balance: balancing the risk of personal distress through emotional attachment to patients and families with engaging in acts of self-preservation to protect themselves from the emotional impact of the work, thus making it possible to keep working. The most prominent form of self-protection is in emotionally disconnecting from the work, from patients, families and themselves. In this way CCU professionals are emotionally avoiding distress.

The complexity of achieving a balance within CCU was explored, recognising that whilst making emotional attachments risked distress, sadness and grief, it also has an essential role within the work. Professionals find such relational connections nourishing. There is a joy in the challenge of the work, in doing one’s best. These experiences replenish professionals’ emotional state buffering against being lost in the devastation and providing a professional pride. In part, one’s resilience, the ability to be replenished and buffer against the pain of death and suffering, is influenced by an acceptance of death which appears to be an individual worldview aligned with the general culture of CCUs. The valued culture of support within the CCU appears to be central to enabling professionals to keep going in the face of continual exposure to suffering.
This theoretical interpretation of the qualitative research reflects findings within previous quantitative research\(^1\) and systematic reviews\(^3\). The theory presented in this paper supports the hypotheses offered by Van Mol et al (2015)\(^3\) that there are both personal and organisational factors which mediate the experience of emotional distress within CCU professionals.

The protection and risk embodied within both emotional connection and disconnection presented within this theory resonates with the findings of Colville et al’s (2016)\(^1\) study. This research identifies that whilst disconnecting through the engagement in interests or hobbies outside of and separate to the CCU reduces the occurrence of posttraumatic stress, emotional disconnection through the use of alcohol in fact correlates to a doubling of the incidence of burnout\(^1\). Similarly this same research found that processing ones emotions by connecting with them through talking with seniors or debriefing is protective against burnout and posttraumatic stress, whilst venting emotion in perhaps an enmeshed way doubles the risk of burnout\(^1\). In addition, consistent with the theory identified with this meta-synthesis, Colville et al’s (2016) research reverberates with the value professionals place on peer support within CCUs\(^1\).

**Strengths and Limitations of the meta-ethnography**

This paper presents a systematic and rigorous process which followed recognised guidance for identifying and evaluating research quality\(^23,\,37\). This paper drew on meta-ethnographical methodology to interpret the data of identified studies\(^24,\,26\) with the aim of synthesising the concepts within qualitative research. The interpretative nature of
meta-ethnography mirrors the processes of the primary qualitative studies presenting a strength in adopting cohesive methodology.

Whilst meta-ethnography generally focuses on a small number of studies\textsuperscript{38}, the number of studies incorporated into the present synthesis was only 9. Due to the explicit concentration of this systematic review and meta-ethnography on the distress and resilience of medical professionals working in a general medical adult CCU, studies were excluded where the focus was on more general clinical experiences, or where the setting of the research was paediatric or other specialities of CCU. Further research comparing this interpretative theory with other CCU settings such as paediatric, neonatal or surgical would be beneficial to consider the transferability of this theory.

It is a striking limitation that the qualitative research reviewed in this paper held the dominant perspective of nurses with the combined participant total being 132 nurses compared to just 24 physicians. It is significant that the perspectives of physicians remain largely unheard as the experiences of medics are likely to be quite different to those of nursing staff due to the considerable difference in roles and responsibilities within CCUs. Furthermore, there are differences in the nature of the relationships with patients; nurses have intense close contact with one patient often over 12 hour shifts, whereas patient contact is diluted for medics who balance their time between treating many patients. Finally, there are hierarchical differences which may offer differing experiences between the professions.
Implications of this meta-ethnography

The interpretative theory arisen from this meta-ethnography provides a deepened understanding of the internal conflict required to achieve balance within professionals working in CCUs. Potentially this theory offers a theoretical basis for the promotion and development of strategies to facilitate resilience within CCU professionals. Such strategies could include formalising workplace support within the culture of CCU to enable professionals to process the emotional impact of the work and thus hold a balance within one’s emotional attachment.

The present study highlights the limited research which exists in relation to consultant physicians within critical care. Furthermore, whilst research recognises the emotional burden and impact of working in CCUs, there remains a lack of understanding regarding the specific processes involved in developing resilience in this area. Consequently, further research exploring resilience within critical care consultants may help develop a more comprehensive understanding of how consultants maintain working in such a fast pace, high stress and emotive environment whilst protecting themselves from its impact.
References


Paper 2: Empirical Research


Josephine Allen

Abstract word count: 150
Main text word count: 7850
Total word count: 8000
(excluding tables, figures and references)
Abstract

**Background:** Critical Care can potentially be an emotionally demanding work environment. Research has identified high levels of burnout and posttraumatic stress in Critical Care professionals. However most exploratory research relates to nurses. The aim of this research was to elucidate an understanding of resilience in intensivists.

**Methodology:** Eleven intensivists from across Welsh Critical Care Units engaged in semi-structured interviews exploring their experiences of resilience. Data was analysed adopting a Grounded Theory approach.

**Results:** A theoretical understanding of the relationship between vulnerability and resilience amongst intensivists was developed. Four main concepts were identified: the impact of competing demands within the intensivist role; self-resilience as continuous movement between connection and protected disconnection; relational resilience; developing resilience.

**Conclusions:** The developed theory of resilience conceptualised how intensivists continually move between connection and protective disconnection from vulnerabilities, employing factors of relational and self-resilience. Implications regarding nourishing resilience and wellbeing amongst intensivists were discussed.

**Keywords:** Critical Care; Psychological Resilience; Wellbeing; Stress; Burnout; PTSD; Intensivist; Consultant; Physician; Qualitative; Grounded Theory.
Introduction

Critical Care Units (CCU) are potentially emotionally demanding environments for staff. Providing intensive medical interventions to patients at a critical level of need means staff are continually challenged intellectually, physically and emotionally. In a collaborative statement, American Critical Care Societies have acknowledged the intense stress physicians experience working in CCU. Findings from research indicate that the emotional impact of working in CCU is a consequence of engaging in work which is challenging and has high patient mortality alongside frequent experiences involving traumatic and ethical considerations. In addition, reduced job satisfaction and burnout have been associated with making highly emotive decisions relating to end-of-life which may contribute to the high levels demonstrated across CCU medical staff. Over the last decade, research with CCU physicians and nurses has continued to report high prevalence of burnout, posttraumatic stress, depression and emotional distress.

Whilst psychological distress is experienced equally across medical specialisms, research suggests that critical care consultants, often known as ‘intensivists’, are particularly at risk of burnout compared to other medics. Burnout describes the experience of psychological distress and emotional exhaustion as a consequence of chronic occupational and interpersonal stressors. Considering burnout, stress and mental health difficulties account for the highest proportion of National Health Service (NHS) employee sickness, the high risk of burnout across CCU staff holds significant implications.

Whilst most research into psychological distress experienced by CCU staff has been with nurses, there are a few studies which have focused on the impact for intensivists.
In studies conducted in France, 46.5% of intensivists presented with symptoms related to burnout syndrome\textsuperscript{7} whilst 23.8% experienced symptoms of depression\textsuperscript{15}. A recent survey carried out across Wales CCUs identified 43% of intensivists have experienced health problems associated with work, with 67% fearing an increased retirement age would affect their health\textsuperscript{21}.

In addition to impacting medical professionals’ well-being and absenteeism, research indicates that burnout has a negative impact upon the quality of medical care and performance of staff\textsuperscript{22, 23}. The Point of Care Foundation has raised concerns regarding the impact of burnout experienced by physicians across the NHS on patient safety, patient experience and effective decision making\textsuperscript{19}.

As well as causing high levels of burnout, the challenges of working in highly stressful or traumatic environments of CCU can lead to posttraumatic stress\textsuperscript{4, 13, 14, 20}. Individuals with posttraumatic stress disorder persistently and intrusively re-experience traumatic events with increased arousal and reactivity\textsuperscript{24}. A high rate of posttraumatic stress symptoms have been found amongst CCU nursing and medical staff (52%) associated with workplace experiences\textsuperscript{20}, as assessed through the Trauma Screening Questionnaire\textsuperscript{25}.

Although working in a demanding and emotionally charged work environment such as CCU may predispose a risk to burnout and posttraumatic stress, resilience can act as a buffer to its impact\textsuperscript{1, 4, 26, 27}. Psychological resilience has been defined as a dynamic process in which an individual may draw on a multidimensional characteristic in times of adversity, complexity and rapid change which allows this individual to positively adapt and thrive\textsuperscript{27-29}. The characteristic of resilience encompasses multiple psychological and personal attributes which include: an optimistic perspective with a
belief that one can be strengthened by stressful experiences; personal goals; faith; the capacity to access and accept support from others. Within CCU, research suggests that self-care, having enough sleep, exercise, having hobbies separate to CCU, engaging in stress-reduction techniques, adopting management skills, maintaining work-life balance and setting limits can be beneficial. Personal attributes such as a strong sense of morality and spirituality alongside systemic factors including engaging with a supportive social network are considered to act as buffers to developing posttraumatic stress, burnout, anxiety and depression.

Although resilience can buffer individual experiences of resilience, research suggests that certain professional groups in CCU may be particularly vulnerable. Colville et al (2016) found that when compared to nurses, physicians are twice as likely to experience burnout, even after mediating for the individual’s resilience and ability to employ coping strategies.

Despite the suggestion that resilience may be protective against burnout and post-traumatic stress for CCU medical staff, there are very few studies in this area and the main body of research relates to nurses rather than consultants. This is significant as the experience of intensivists is likely to differ considerably from that of nurses due to disparate relational and hierarchical dynamics in addition to distinctly different demands within their roles. Consequently, a need for further research has been identified. The aim of this study is to elucidate an understanding of resilience in intensivists’ through exploring their experiences of working within CCUs using a qualitative research approach. The study seeks to gain an increased understanding of possible individual and environmental factors which enable intensivists to stay working in this highly demanding and potentially traumatic specialism.
Methodology

Design

The study adopted a qualitative approach in which in depth interviews were conducted with intensivists which were subsequently transcribed and analysed in accordance with the principles of Grounded Theory. Analysis was an interactive process which incorporated an iterative approach, continually moving between data and analysis\(^ {31, 32}\). As such, each interview was transcribed immediately after completion and data reviewed to identify emerging themes which informed changes in subsequent interviews. Interview questions were revised to focus increasingly on the theory which emerged from the data in an evolving process\(^ {31}\). From emerging concepts, a contextualised theory was developed, which was grounded in the data\(^ {31, 32}\).

Consistent with Grounded Theory, the number of interviews conducted was determined by the point of data saturation, where no new theoretical insights or understandings emerged from the data\(^ {31}\).

Participants

Eleven intensivists (8 male, 3 female) participated in this research. All participants were NHS employees and worked within general medical adult CCUs across four University Health Boards (UHB) within Wales. Ten participants had worked as intensivists for over two years, with several having over 15 years’ experience. One participant had been working as an intensivist for just under two years. Further specifics regarding individual participants are not provided to protect their anonymity.
Participants were allocated gender-neutral pseudonyms and the units in which they work are not specified to further ensure anonymity.

Table 1: Inclusion Criteria for participation in the research study.

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<th>Inclusion Criteria</th>
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<td>- All participants were &gt;18 years</td>
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<td>- Consultant Intensivist</td>
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<td>- Worked as a Consultant intensivist within Critical Care for more than 1 year</td>
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<td>- Able to understand English and communicate responses.</td>
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**The researcher**

The researcher was a trainee clinical psychologist in her final year of training who often drew on attachment\(^3\) and relational psychodynamic theories\(^34, 35\) in clinical practice. To identify and mediate the impact of theoretical assumptions as a potential bias to analysis, the researcher used reflexive techniques through supervision and keeping a reflective log in addition to methods of triangulation described in the section on Rigour. The researcher was supervised by two clinical psychologists, one of whom had historically worked in a paediatric CCU whilst the other was the psychologist based within one CCU included in the study.

**Procedure**

**Recruitment and sampling**

An invitation to participate in the study was sent via email to all consultants working within CCUs across the four identified UHBs. All intensivists who expressed interest in partaking in the research and who met the inclusion criteria were accepted as
participants and interviewed in the first instance. Thereafter, consistent with Grounded Theory, theoretical sampling was adopted, enabling the selection of participants to be guided by the emerging theory within the data previously collected and analysed\textsuperscript{31, 32}.

**Interview process**

In accordance with a Grounded Theory approach, a semi-structured interview guide was developed which incorporated non-judgemental, open-ended questions which invited the emergence of unforeseen narratives\textsuperscript{31}. The research protocol and interview guide were reviewed by an intensivist who did not meet the inclusion criteria due to his new appointment. The focus of the questions related to intensivists’ experiences of working in Critical Care: how did the work affect them and what enabled them to keep working in this highly demanding specialism?

When conducting the interviews, an approach of intensive interviewing was adopted. This process enabled a focus on certain areas of experience whilst allowing flexibility to follow-up on ideas and consequently engage in a co-constructed conversation between interviewer and intensivist\textsuperscript{31}. Interviews were audio-recorded to enable accurate transcription and facilitate analysis of the data.

Consistent with theoretical sampling, following identification of themes which remained unclear or unresolved within emerging concepts, questions within the interview guide were amended with the intention of learning more, to elaborate or refine categories and further develop emerging theories\textsuperscript{31}. Concepts which led to more specific questioning included intensivists’ experience of stress and vulnerability as well as
exploring intensivists’ felt sense of a balance between the concepts of connection and protection.

On average, interviews were 46 minutes. The shortest interview lasted 30 minutes whilst the longest totalled 61 minutes.

**Data Analysis**

Interviews were transcribed and analysed through the application of core technical processes within Grounded Theory: coding, memo-writing and theoretical sampling.

The combined length of the transcriptions was 80,744 words. The average length was 7340 words, with interviews ranging from 4814 words to 9310 words.

**Coding**

Within Grounded Theory coding is the pivotal process of developing a theory which emerges from within the data. Coding involved two processes: initial and focused coding\(^{31}\). The initial line-by-line coding was conducted to provide a preliminary framework for analysis. This process involved studying each fragment of data in an interactive analytic process wherein ideas about the meanings within the data began to form\(^{31}\).

Initial coding provided numerous possibilities for the direction of analysis. Through the process of in-depth consideration and comparison, focused codes were developed to subsume multiple initial codes at a more conceptual level. These focused codes
guided the direction of analysis and allowed evaluation of the codes against the data, enabling the beginnings of ideas to be conceptualised\textsuperscript{31}.

\textit{Memo-writing}

Throughout the research process memos were written facilitating consideration and analysis of the codes\textsuperscript{31}. The process of memo-writing involved capturing initial thoughts and ideas and engaging in a constant comparison of codes and data. This facilitated the realisation of connections and disparities essential to the consideration of new directions to explore and to the development of emerging conceptual theories\textsuperscript{31}. This process guided theoretical sampling and subsequently led to saturation within theoretical concepts\textsuperscript{31, 32}.

\textit{Rigour}

To enhance quality throughout this research and safeguard against potential bias, several techniques were employed to optimise rigour consistent with guidance\textsuperscript{36}. This research was conducted within a systematic approach to data collection and analysis\textsuperscript{36} with an element of flexibility, whilst maintaining a neutrality inherent within Grounded Theory\textsuperscript{31}. To ensure reliability of the codes and developing concepts, nine transcripts were reviewed and commented on by one supervisor who had extensive experience within Grounded Theory research methods. Furthermore, the final concepts and theories were reviewed and discussed between the researcher and supervisors to ensure these were representative of the data.
Verbatim quotes were included in the report to demonstrate where the developed concepts and theories were grounded in the data.

Additionally, it was important to engage in processes of reflexive practice such as regular supervision and keeping a reflective methodological journal throughout the research process\textsuperscript{31}. Engaging in these processes ensured the researcher’s values and assumptions were not blindly predetermining the direction of theoretical development within the data but rather aided the maintenance of a critical perspective on the data\textsuperscript{31}.

**Ethical considerations**

Ethical approval was sought and granted by Research and Development departments affiliated with each UHB involved in this study.

A comprehensive participant information sheet was developed and provided to all potential participants. Intensivists were asked to sign a consent form before participating in the study. Participants were offered time with the researcher to ‘debrief’ immediately following the interviews and information was given regarding available services within each UHB for ongoing support. Participants were clearly informed of their rights to discontinue participation in the study at any stage of the research.

The small possibility for there to be a disclosure of risk issues during the interview was also considered and procedures put in place for assessment and management of the risk.
Results

The core psychological concept identified within the data was vulnerability. At a conceptual level, the experience of vulnerability was influenced by the pressures of juggling competing clinical and managerial demands of the intensivist role, within an organisational structure which was often felt to be blind to the stresses of doctors. A theory of resilience was developed within which a pivotal process was the continual movement towards and away from vulnerabilities resulting from the impact of the work. Flexibility in relation to one’s contact to vulnerability appeared to be intrinsically linked to resilience. Intensivists spoke of factors which influenced their ability to achieve a balance of connecting to the vulnerabilities enough to allow them to process the impact of work whilst maintaining a self-protective distance. One significant influential factor lay in a relational process whereby a sense of being understood was highly valued. Within this concept, intensivists spoke of being understood, both in their relationships outside of work but also through support within the body of intensivists.

As such, the analysis gave rise to four main concepts; the impact of competing demands within the intensivist role; self-resilience as continuous movement between connection and protected disconnection; relational resilience; and developing resilience. These concepts are considered in turn and a pictorial representation of their interrelationship can be seen in Figure 1.

Verbatim quotes are included throughout the following section. Where surplus and irrelevant words of the verbatim quotes were cut, this is represented by the inclusion of an ellipsis “…”. Where clarification is required this is provided in [brackets].
The impact of competing demands within the intensivist role

Intensivists conceptualised two distinct yet intertwining aspects to their role; clinical and managerial. Both aspects held distinct influences upon vulnerability. However, where their impact was most significant was when the two roles collided to intensify stress.

Clinical role of the intensivist

Clinical work was consistently referred to as the core of the intensivists' role; holding a philosophy of the patients at the heart of clinical work and being a good physician. Many intensivists referred to clinical work as the role they had trained for and the aspect they most enjoyed.

...the clinical side of things...providing the best care that you possibly can...(Chris)

...being a good intensivist; there are some technical skills that you need...being good diagnostically and having a knowledge base...(Alex)

Intensivists described a sense that the direct impact they had on patients’ and families’ lives and deaths gave them a feeling of satisfaction, was consistent with their values and made them feel good. Being influential through making a difference in the lives of patients and families was viewed as rewarding and fulfilling and acted as a buffer against the emotional impact of the work.

...you have a good feeling inside...some change for the benefit of a patient has happened as a direct result of what you and a group of people around you have pulled together to achieve...I’ve left today and everything is slightly better because I was there. The values that you are part of a process that worked...(Dylan)
Despite the joy and fulfilment felt in the clinical role shared by many intensivists, consultants also described the emotional impact of this work.

...a lot of it is quite stressful workload, so it’s sort of patients who are nearing the end of their life becoming unwell…It [the work] is very demanding on a personal level…(Frankie)

For some however, the work was appraised at times to not be stressful; the impact was deemed acceptable in the context of variations in the intensity of the work.

But not every day is like that [stressful]. There are days when the unit will be a bit emptier and those stresses aren’t there…actually, throughout your working year, the shifts that you do, only maybe 40/50% of them will be like that! So that’s quite good, isn’t it?...(Alex)

In a time when retirement age is ever-increasing, so too is the demand on NHS CCUs. Many intensivists expressed concern about their future wellbeing, predicting a corresponding increased demand on intensivists clinically, physically and emotionally as they age.

…the irony is that of course as you get older you find it physically harder to do that [work long hours into the night]…I find that increasingly difficult to cope with…the biggest stressor I would say at the moment it’s probably…the physical hours that we’re expected to work…(Adrian)

Managerial role of the intensivist and the impact of the system

The second key aspect of their role emphasised by intensivists was managerial and operational duties, such as people and bed management. All intensivists commented
on organisational, managerial decisions and policies relating to resource cuts causing pressures on beds, resulting in the prioritisation of patients ultimately becoming clinical decisions. There was a frustration within this clash of worlds, a fury at the system hindering intensivists’ ability to do their job well, an anger that such constraints result in the delay or acceleration of death and a sense that intensivists were expected to hold the risk of these decisions. The consultants spoke of this as the most significant challenge they face; weighing up critical clinical decisions based on limited resources.

I just find it very frustrating...I can understand why it happens but it makes me very cross you know...Sometimes your balance is between...do you bring that one [patient] in knowing you don't have any nurses and no staff and then you compromise everybody's care just a tiny bit, or do you sort of sacrifice one? And I don't know the answer is. But those are resource issues which wind up becoming medical decisions when they shouldn't...(Brynn)

For some intensivists, there was a frustration in the slow pace of change within the NHS where the failings of the system were not being acknowledged and addressed. In holding both clinical and managerial roles, intensivists were in a position in which they could identify and attempt to effect systemic changes. Yet despite their position, intensivists felt unable to effect change within this organisational structure. This powerless position seemed to perpetuate a sense of vulnerability and misery.

What I find...extremely hard is the management world...because they are kind of a decade away from getting fixed, that's quite a miserable place to be sometimes actually. And you just think, 'I know what should happen'...I feel accountable for this and I can't do anything about it and I don't like it...I don't understand how this system changes...I've found that very, very frustrating...(Dylan)
Underpinning these frustrations was a feeling that the pressures and stress intensivists experienced were not understood by the organisation. In this way, intensivists were not held by the organisation who instead intensified their stress and vulnerability.

*Its bloody hard work...the organisation doesn't appreciate the stress on us and I don't think the organisation appreciates what we try to do...management don't have a clue. They don't have any insight whatsoever into what we're doing and what we do and the problems and the stresses, be that emotional resource or whatever that we're placed under on a day to day basis...*(Adrian)

**Self-Resilience as continuous movement between connection and protected disconnection**

Permeating intensivists’ experience was a sense that whilst connecting to one’s own and to patients’ or families’ emotional experience was seen by some as valuable, it was also considered to be risky, even ‘dangerous’, within a critical care environment where death and mortality were frequently encountered. Emerging from the analysis was a theoretical concept of resilience as a continual movement between connecting to vulnerability and maintaining a protective disconnection from the intensity of emotions.

**Connecting to self: vulnerability in emotional experience**

The impact of working as an intensivist was highlighted by many of the consultants who described the experience as emotionally draining and challenging, holding a risk of burnout.
We’ve all got burnout symptoms…(Emlyn)

…they [challenging situations] are emotionally draining, I think they…require a lot of kind of emotional strength to deal with them because the challenging situation in intensive care invariably equates to somebody who’s got a life-threatening illness…emotionally it’s very challenging, I think it can just be tiring…(Adrian)

Whilst burnout was widely accepted to exist amongst intensivists, the experience of posttraumatic stress was consistently refuted. However, in Caerwyn’s narrative, there was a glimpse into an experience of a trauma response.

…some of them [clinical incidents] change you or alter you. So I intubated a lady…and she died. Not because I’d done anything, she was just sick. But she was talking to me, I put her to sleep and then she died. And now, I think when I have a similar patient I’m more nervous about putting them to sleep just because of what happened before. So I don’t change anything. But I do have more tachycardia now because you think ‘what if the same happens?’…I think ‘last time I did this she died. That lady died’…(Caerwyn)

In addition to the anxious relieving of traumatic events, other intensivists described engaging in equally immersed rumination about work.

There are some things which stay with me. So when I work a lot I find it very difficult to switch off…when I go to bed at night I do a ward round, so I go 1, 2, 3 - it’s awful…(Brynn)

Connecting to patients and their vulnerabilities

Some intensivists placed high value on empathically responding and connecting to patients and families. Providing understanding and security to patients and families
when they were intensely frightened, was seen by these intensivists as central to their role.

…I try not to underestimate the impact that it has when people see you as any role model or someone they are trying to trust and take advice from; or a patient who is seeking answers when they are scared, or a family who is trying to understand what is happening to their loved one. And what they want is something that feels very firm and solid and secure. So that’s part of your make up…(Dylan)

However, intensivists recognised that continual emotional availability to patients and families weighed significantly on their emotions. Being immersed in the existential humanity of death and raw emotions of fear and loss was recognised as having significant potential for burnout.

…but ICU clinicians I think there’s a high risk of burnout because the families’ emotions and stress levels are very high…(Charu)

Intensivists described being most affected by a patient’s death or illness when they identified with the patient or felt a relational connection. Perhaps, implied within this was a sense that consultants faced their own mortality.

…but things that will affect you…is usually…where you can see yourself in that circumstance. So it might be someone who is the same age as you…or their background is similar or something about a case will make you think of your family or something. So that’s why I might be affected by death, or someone who is very sick, and then I might go home and I might think about it…(Chris)
Disconnecting to protect self from vulnerability

A concept which consistently arose was a sense that intensivists frequently engaged in a level of disconnection which was experienced as protective and healthy. To allow oneself to truly experience the intensity of loss so prevalent in CCU would be unbearable. To survive, intensivists learned to emotionally distance themselves from work and people.

A theme which emerged throughout the analysis was a sense in empathically connecting and sharing the pain felt by families, there lay a risk of being personally vulnerable.

> Empathy is quite a dangerous thing to undertake…if I start giving myself a hard time because I'm sharing in their [families’] situation, I think that's dangerous and that's going to break me, so I don’t do that…(Eirian)

Similarly, remaining disconnected to patients was considered helpful to protect oneself. This process of distancing from patients was made easier by patients’ unconscious state and subsequent diluted contact with patients which acted as a buffer between consultant and patient.

> I always distance myself from the patient becoming too close…maybe to protect myself…(Caerwyn)

> Often we don’t…meet our patients awake…it’s harder when you’ve got to know someone…in terms of longevity of career, sometimes that’s a helpful mechanism…to protect yourself from becoming too involved…(Alex)

Keeping an emotional distance from patients was also considered essential to maintain clinical objectivity. In fact, to do the job of an intensivist effectively, disconnection was seen as vital.
...to do your job you have to be disconnected...if you're disconnected and you're looking at them from a clinical problem perspective you can be far more objective about what you're doing than if you actually know them...(Emlyn)

Several consultants reflected on the culture of intensivists, observing similarities in personalities. Their reflections detailed a culture wherein expressing the emotional impact of work was perhaps not fully allowed. There was normality within an ethos of getting on with it, of denying the emotional impact, giving rise to an “emotionally blunted” culture.

I don’t know whether they [intensivists] don’t articulate it and probably tend to hide a lot of those feelings. I think people generally, across the board, would struggle to probably own up if there was a problem...(Alex)

Most intensivists are emotionally blunted...(Frankie)

Many consultants spoke of holding alternative job roles within which they could have respite from the intensive and emotive work of CCUs.

...after...intensive care, where there’s a lot of sadness and a lot of anxieties and a lot of uncertainties surrounding death, to step out of it...and then come back in, I think that’s really quite a valuable part of my pattern of working...A useful way of taking the pressure off...a break from the chaos and mayhem that is intensive care...(Eirian)

Detaching from the over focus on work was spoken of as helpful through engaging in activities using a different part of the brain.

...scheduling into my life other things outside of work...something that just uses a completely different part of my brain...it’s just about detaching from that very unhealthy over-focus on one
thing too much. So too much time thinking about the job…breaking that up with whatever you
do, whether it be exercise, any hobby, meditation. I’ve always thought that that’s a useful thing
to do…(Dylan)

In disconnecting, intensivists remained at an emotional distance from the pain felt by families and from their own emotional responses. However, there was an acknowledgement from some that when taken to an extreme, engaging with work from a disconnected state stopped being protective and became a symptom of burnout. Intensivists observed colleagues showing disconnection from the unit, a severed disconnection from their own emotional process and a nihilism regarding patients.

…you do see people who’ve sort of disengaged and I wouldn’t wanna be one of those people…if I stop becoming emotionally involved with any of my patients that come through the door actually it’s probably time for a break because you you’ve probably set your wall too high…(Afon)

…I’ve seen intensivists who will not admit anyone and they’re very nihilistic and I think that’s often an early sign that intensivists are burning out!…(Alex)

Consequently, some intensivists felt strongly that this culture of hiding the emotional impact needed to change by talking more and sharing an understanding of what is normal.

…people just need to know what is normal I think. I think that’s very, it’s very cloak and dagger, it’s just made up and get on with it and actually I think…it’s not talked about as much as it should be…(Dylan)
Achieving an equilibrium in self-resilience

Throughout analysis there was a sense that each intensivist experienced a process of achieving an equilibrium through a continual movement between connecting and protectively disconnecting from vulnerability, influenced by the needs of CCU and their own needs.

This balance was epitomised by the descriptions of several intensivists of the risk to the care of all CCU patients when they allowed themselves to be immersed in the emotion of one patient’s plight. Holding insight in to one’s connection to patients and endeavouring to maintain an emotional balance between connection and protected disconnection enabled intensivists to continue to prioritise and provide care to the whole unit.

*I do notice the emotional burden more than I used to…But also, it's that balance of making sure that you don't spend so much time on ones [patients] that you have got emotionally involved with at the detriment to the rest of the unit. And so, I guess just having an awareness that you have become emotionally attached to patients or relatives helps…*(Afon)

Similarly, being overly invested in problems within CCU clouded intensivists’ insight into their own internal processes. In this way, distancing oneself from work was considered to enable intensivists to maintain emotional wellbeing and nourished insight; stepping back and observing their own emotional response allowed them to emotionally connect and respond to their own psychological needs.

*I distance myself much more…I used to feel it very personally…And inevitably…it just means that…you are not keeping touch of your capacity of what you can deal with. So I think that’s been a big change to what I’ve done; so recognising what is manageable, what actually can I take on and if I can’t take it on just saying no…*(Dylan)
For many intensivists, achieving an equilibrium within psychological well-being was rooted in balancing fighting for life, whilst accepting death; this ameliorated the emotional response to death. In their fight for life, consultants understood the reasons for decline and did everything they could to retrieve the patient from death. However, intensivists understood that for some patients, death was an inevitable and expected outcome. Intensivists’ pragmatic acceptance of the inevitability of death alleviated feelings of being personally responsible for a patients’ death, without being disconnected from them.

…it can be quite rewarding, obviously, if people get better, and obviously we’re quite pragmatic that a third of our patients don’t get better. I think if people don’t get better and you’ve expected that, that’s fine. For me, it’s about having a strategy, and hopefully that plan having come to some kind of fruition, reached a diagnosis, communicated well with the family, worked well with the team, and you kind of feel like even if they’re not getting better, it’s kind of expected, you’ve got a reason for it…as long as you’ve given the best possible treatment, I can reconcile it very easily that they just didn’t get better and that wasn’t my fault…(Alex)

Intensivists’ described that the focus on critical decision making provided a feeling of being in control which was felt to be protective over stress and burnout and central to resilience.

…having the burden of making decisions of whether to continue or not is actually protective and helps sort of reduce burnout because you feel you’re more in control…(Frankie)

This sense of certainty and control was conceptualised as being rooted in the comprehensive training intensivists receive. As such, the unpredictability of clinical emergencies was experienced as less chaotic than working within a management
system where intensivists’ felt they lacked understanding and consequently held less control which intensified stress.

…where I’d instinctively think there is most chaos, cardiac arrest or something, for me that’s where there’s least chaos because people have trained and they understand how to manage that unpredictable…I think what you have is people working at a [management] system that they don’t understand…So that’s where I think the problem with stress comes…a kind of control thing…(Dylan)

A key protection against the impact of intensivists’ role arose frequently as being simple acts of self-care; keeping hydrated and nourished, taking a break, going home. These were acts which could be easily overlooked due to the business of CCU yet their importance was paramount in keeping intensivists well enough to keep going.

…simple things like always bringing lunch with me…always bringing more water with me to keep myself hydrated so that I don’t feel as rubbish…being allowed to sit down for 10 minutes, have a cup of tea - you can still look at information, you can still keep going, but yeah that enables you to recharge…(Afon)

This balance of self-care extended to an importance for many consultants of having a clear delineation of home and work life; disconnecting to protect home from the encroachment of work.

Taking things home is a big mistake. I try…and have as clear as possible delineation between work and home…(Chris)

Frequently, intensivists spoke of holding clear values prioritising home and family life which seemed to be protective and impact personal stability at work. Conversely, intensivists observed those without stability at home as more vulnerable at work.
...people who are good at managing stress...have very solid values around stuff outside work...which for most people is family...‘this is what’s most important and this is my purpose for coming to work’...the manifestations at work because of that is usually the calm, cool person...who doesn’t really get...all the signs of stress at work. And then there are the people I don’t think handle it very well...They perhaps don’t have that stability outside work, so work is all they’ve got and as time drifts on they become vulnerable...(Dylan)

Relational Resilience

Within analysis a central concept arose of group processes enabling intensivists to seek support from one another. In talking to one another about their frustrations and experiences, intensivists shared their suffering and felt understood which eased their individual burden and appeared to have an ameliorating influence on the personal experience of vulnerability, facilitating a relational resilience.

...in the morning we...have a coffee together and then you can discuss things with your colleagues and I don’t know if that ever makes any difference but your frustrations are shared...(Brynn)

I think there’s camaraderie and that’s to do with all suffering together...(Eirian)

Significantly, consultants felt supported when it was possible to have discussions relating to complex ethical decisions within a formal handover.

If there are difficult ethical situations, if the time pressure isn’t that great, then that’s [handover] the moment in which they get discussed...So, in that respect, there’s quite a lot of help from one consultant to another...(Eirian)

In this way, the group holds individuals through both a formal process of complex case discussion and an informal sense of being supported and understood.
So again, we're very good at supporting each other in that way, so I think that makes a huge difference…(Adrian)

In addition, many intensivists spoke of the importance they attributed to their relationships at home. Intensivists attributed value in being able to talk with spouses about their work and be understood.

…your family have to understand on some level; you need to be open with them and they have to understand…(Dylan)

There was a sense throughout all narratives of the centrality of support within intensivists’ personal lives to buffer the impact of critical care and to protect against burnout.

Having the family support I think is one of the prime needs for an ICU clinician because of the stress that’s involved…Family support to de-stress is quite a useful thing. I think it’s quite important… I can see when things go badly for some people it’s always been that immediate support which just hasn’t been there…it just shows you how easy it is to get burnt out in this job and the more family support you have is good for you…(Charu)

**The development of resilience**

Intensivists made consistent reference to resilience but they questioned its origins. Two main concepts emerged within analysis: resilience as inherent within personality; and resilience developing over time through experience as a CCU physician.
Resilience as inherent within personality

There was a consistent theme that resilience was inherent within the personalities of intensivists and considered to buffer the stresses of work. Intensivists frequently spoke of observing people with more resilient personalities self-selecting into this profession.

…of course people will self-select…you can actually go and interview ICU people in South Africa or North America and you’d have the same kind of characteristics…(Emlyn)

For some, there was an understanding that this characteristic of resilience developed within formative childhood experiences.

…resilience really comes from what you’re like as a person, which is formed…that might dictate why you went into intensive care. So, there might be formative childhood experiences that make you more resilient and therefore you don’t get so stressed...(Chris)

Habituation: Resilience developing over time within the role of a CCU physician

Conversely, a concept arose depicting the development of resilience characteristics over the course of the intensivist's career. Consequently, CCU work became more manageable and had less impact over time. This habituation at times revealed a degree of self-protection. In learning to distance oneself, intensivists were enabled to keep going, to keep working. Within this there was also a normalisation, an acceptance of death as inevitable, which buffered its impact.

I find – I don't know, do you become hard hearted? I find it doesn't get to me as much as it used to…when I was young…intensive care it really, really upset me but…I mean it is upsetting in a way but actually there isn't anything I can do about it. That just is the way it is…(Brynn)
Alongside this, intensivists felt they gained increased certainty and developed pattern recognition through greater clinical experience, i.e. they noticed commonalities in presentations and consequently built confidence in their decision making.

*I think that’s probably something you learn, and in the beginning it’s quite difficult. So I think part of it is experience and time, it’s just the daily routine…*(Alex)

*I guess the clinical bit…gets easier because it’s just pattern recognition…*(Brynn)

Discussion

The findings within this study demonstrate the complexity of resilience experienced by intensivists across NHS CCUs in Wales. Conceptually, the findings highlight the vulnerability of intensivists in the face of complex, high pressure competing demands, both clinical and managerial. The developed theory emphasises a process of maintaining relational and self-resilience in which intensivists engaged in a continual movement between connecting to and disconnecting from vulnerabilities in a way which was experienced as protective.

The analysis of the key concepts was drawn together in a diagrammatic form (see Figure 1 below). Within the diagram, a central experience of vulnerability is depicted, influenced by the competing demands of the intensivist role in addition to events within home life. Conceptually, intensivists’ experience of vulnerability was buffered by factors of relational resilience and self-resilience within which there was a movement between connection and protected-disconnection. Aspects of resilience were perceived as both intrinsic within personalities and developed thorough experience and habituation to the role.
The impact of the intensivist role

This study found intensivists recognised the prolific presence of burnout within the profession. Whilst intensivists refuted the presence of posttraumatic stress, there was evidence of traumatic responses to clinical experiences within some narratives. The presence of psychological distress identified by intensivists in this study reflects the growing body of research which recognises high prevalence of burnout\textsuperscript{6-12, 20}, posttraumatic stress\textsuperscript{4, 13, 14, 20}, depression\textsuperscript{15} and emotional distress\textsuperscript{1} across CCU medical staff.
The experience of CCUs as emotionally demanding environments where staff engage in work which is intellectually, physically and emotionally challenging\(^1\) was clear within intensivists’ accounts. Furthermore, the physical demand of the role and its impact on health arose as a significant concern for intensivists as they looked to a future holding increasing retirement ages; a fear echoed by intensivists across Wales\(^2\).\(^1\)

Intensivists within this study highlighted their continual endeavour to juggle competing demands of clinical and managerial work within an organisational culture which they felt did not understand the pressures intensivists face. This sense of the wider organisation and government failing to understand or contain anxieties which permeate the NHS is one recognised by Campling (2015)\(^3\).\(^7\)

Within these findings, intensivists expressed most stress when organisational structures were imposed upon them; where a lack of resources and structural processes hindered the care and treatment of patients, increasing the weight of life and death decisions. This finding is significant given research has found an association between emotive decisions and burnout\(^5\). There was a feeling that organisational policymakers were not connected to the emotional reality of clinical pressures and experiences, a disconnection recognised within research\(^3\).\(^8\). In this way, intensivists and CCU were not ‘held’ or supported by the organisation, increasing their vulnerability.

Although stress and frustration was clear in all accounts, psychological distress was not conceptualised as inevitable. For some intensivists, there was a sense of resilience inherent within personalities and developed early in life, as protective. This concept reflects psychological theories of attachment\(^3\).\(^3\) and intersubjectivity\(^3\).\(^9\),\(^4\) in recognising the formative impact of early relational experiences upon how one relates to self, other
and the world. It is possible that early formative experiences shaped how intensivists survive in the face of adversity, developing characteristics of resilience.

For other intensivists, once the inevitability of death was accepted and confidence in their clinical judgement was developed, the work was no longer as stressful. Consistent with Folkman and Lazarus’ (1988) theory of coping, it seemed some intensivists cognitively appraised the subjective meaning of events encountered within CCU as benign and as such the demands of CCU situations were not perceived to exceed their ability to cope. Through habituation to CCU experiences, intensivists appeared to become less vulnerable and more resilient.

**Self-Resilience**

The findings of this study emphasise a process of self-resilience within which intensivists engaged in a continual movement between connecting to and disconnecting from vulnerabilities as a means of protecting themselves from the impact of CCU. The psychological concept of resilience can be recognised within this dynamic process wherein intensivists draw on a multidimensional characteristic in response to complexity and rapid change within CCU, enabling them to positively adapt and thrive.

This theory of self-resilience resonates with Campling’s (2015) description of the energy required of professionals to engage in a state of mind which encompasses professional detachment whilst embracing the courage to show human kindness rather than recoiling from patients’ pain. There is an importance in being able to step into and contain the pain of patients and families. And yet for intensivists, this connection is dangerous and risks their own pain and vulnerability. Concordantly, the
King’s Fund describes compassionate responses to suffering as potentially painful experiences for those providing them if they are not adequately supported\(^42\). To protect themselves, intensivists engage in strategies of protective disconnection, distancing themselves from pain and vulnerability.

Supporting this theory, the engagement in multiple strategies to protect oneself from the hopelessness experienced within an emotionally traumatic environment in which suffering is prevalent has been recognised within literature\(^43\). Furthermore, this study’s theory echoes a Greek qualitative study describing paediatric healthcare professionals’ oscillation between experiencing and avoiding grief and vulnerability\(^44\).

Within this movement between connection and protected disconnection, intensivists spoke of a variety of ways in which they manage to keep going in an emotive and stressful environment, many of which are mirrored within pre-existing literature. Consequently, this study corroborates research denoting intensivists stay well through engaging in self-care, exercise, hobbies separate to CCU\(^4\), \(^26\), \(^27\), stress-reduction techniques, management skills, maintaining work-life balance and setting limits\(^30\). Intensivists spoke of holding high levels of control within clinical decision making as experienced to be protective against burnout. This perception is supported by research recognising individuals can cope with high workloads when they experience high levels of control within supportive environments\(^45\). Acceptance appeared central to resilience for intensivists, mirroring literature placing acceptance and mindfulness as fundamental aspects of resilience within trauma\(^46\). Engaging in these strategies, combined with a pragmatic viewpoint, acceptance of death and belief in oneself and CCU, provides the structure within which resilience can move between connection and disconnection. In this way, this study supports research signifying both personal and
organisational factors influence vulnerability and emotional distress experienced by CCU professionals.

The findings of this study add support to Colville et al (2016) who reported that even after resilience and coping strategies are mediated for, the experience of burnout continued for CCU physicians. Such findings reflect the sense within this study that as intensivists moved towards extremes of severed disconnection or enmeshed connection, they moved into experiences akin to burnout, posttraumatic stress and distress.

Relational Resilience

Being emotionally supported within the intensivist group and personal relationships helped consultants achieve a balance between connecting with vulnerability to process emotive experiences and engaging in protective disconnection. The Francis report details an investigation into the failings of care within Mid-Staffordshire Hospitals NHS Foundation Trust which reportedly led to inhumane treatment and avoidable deaths. Driving recommendations to enhance staff support, the Francis report highlighted that working within a supportive group buffers the impact of dysfunctional organisations, improving group and individual functioning. Being able to access and accept the support of colleagues or others within a support network has been consistently reported within research as a common characteristic of resilience and protective against burnout.

It is possible that the protection of the group process in building resilience could be rooted in the development of psychological safety, a collective belief that it is safe to
take interpersonal risks within the team\textsuperscript{48}. Within intensivists’ group support, there was an acceptance of sharing the suffering within a culture of non-blaming, valuing and respecting one another. Where this shared cultural perspective was held, the group felt safe enough to share their suffering and vulnerability within relationships, safe in the knowledge they would not be blamed, punished or humiliated\textsuperscript{48}.

**Implications for practice**

This complex multifaceted theory of resilience has potential implications in informing the development of interventions to improve resilience and wellbeing within the intensivist population. Interventions could be implemented across three levels: individual; intensivist group; and wider organisation.

The availability of a clinical psychologist to provide individual psychological support or focused psychological interventions could enable intensivists to connect to, process and accept distressing experiences and enhance relational and self-resilience. The consistent presence of a clinical psychologist on CCUs could provide an opportunity for immediate, effective debriefing enhancing intensivists’ capacity for reflection upon the psychological and emotional impact of the work alongside the processes they engage in to protect themselves.

Educational programmes could be developed and introduced focusing on the psychological impact of CCU and introducing strategies of relational and self-resilience identified by intensivists within this research to enhance self-care and improve wellbeing. Ongoing peer-mentoring programmes could embed strategies in practice
whilst emphasising the importance of nurturing relational and self-resilience within such an emotive and stressful environment, where the risk of burnout is high.

Recognising the value of being supported within the group as protective in facilitating relational resilience, group interventions could enable intensivists to explore their vulnerability in relationship with one another. Enhancing opportunities for relational support within CCUs may deepen reflective capacity of the intensivist group and provide the opportunity to improve skills in balancing the connection to vulnerability, facilitating emotional processing, and engaging in protective disconnection. Group interventions could take the form of psychological supervision or a standardised intervention such as Schwartz Centre Rounds\textsuperscript{49}. Relational approaches to enhancing resilience in CCUs could facilitate the development of a supportive culture of openness and psychological safety\textsuperscript{48}, deepening relational resilience through a sense of sharing suffering and feeling understood, potentially improving staff wellbeing and effecting reductions in sickness levels\textsuperscript{19}.

The findings from this study highlight an importance of organisations understanding the challenges faced by intensivists and validating tensions experienced between the clinical need and organisational system. Enhancing awareness regarding the impact of resource cuts upon the ability of intensivists to do their job and provide best patient care, an experience intensivists felt contributed to burnout, may be central to addressing this tension. Exploring tensions within meetings between intensivists and managerial staff could provide opportunities to build relationships, help intensivists better understand and contribute to organisational systems and provide intensivists with a sense that they are supported and heard, reducing feelings of helplessness. Holding an understanding of the tensions alongside an awareness of the processes of
relational and self-resilience could inform organisational change, facilitating a cultural shift. Through exploring wider tensions between the clinical need and limited resources and introducing resilience based interventions to support intensivists to process the impact of the work and balance connection with protective disconnection, it is possible that wider NHS and hospital organisations could address negative effects of burnout upon wellbeing and patient care\textsuperscript{19}.

**Implications for future research**

Further research testing the theory presented by this study would be valuable. Quantitative research could consider the question of whether greater acceptance of relational resilience leads to reduced levels in burnout across intensivists. Recruiting larger populations, research could investigate the factors which may predict the ability to engage in strategies of relational and self-resilience, for example attachment patterns and emotional avoidance. Additionally, future research could explore the boundaries of connection and disconnection within the concept of self-resilience, their impact upon patients and further whether it is present for other medical and non-medical professions across UK.

Furthermore, evaluations of resilience based interventions as previously outlined could measure their effectiveness in improving aspects of resilience. Given previous research identifying the impact of working in CCU across medical staff, such interventions could be evaluated when implemented with differing staff groups; considering whether resilience based interventions are more effective if delivered to a closed group of intensivists, to intensivists plus trainees or to all medical staff working within CCUs.
**Limitations**

Given the medical specialty and regional restrictions, the available population was small. Consequently, despite endeavours ensuring anonymity, intensivists may have been reluctant to share the reality of their experience, fearing recognition. Furthermore, cultural norms within Wales CCUs may restrict the understanding gained in this study to this population.

Several methods of reflexive practice and triangulation were adopted throughout this research to safeguard against researcher bias. Despite these endeavours, researcher bias remains a possibility given the immersive and constructivist nature of Grounded Theory.

Notwithstanding limitations, this research provides a unique and in depth understanding into the complex processes of resilience and vulnerability within this intensivist group; illuminating the daily challenges and struggles experienced within a seldom studied profession.
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Paper 3: Critical Reflection

A critical reflection on the research process

Resilience in Critical Care: Elucidating the Experiences of Medical Staff.

A Qualitative Study

Josephine Allen

Total word count: 11,870
Introduction

The purpose of this paper is to critically review the process of conducting a piece of qualitative research which aimed to elucidate intensivists’ experience of resilience in the context of working in the potentially emotionally demanding environments of Critical Care Units (CCU). Within this review I will reflect on my experience of conducting a systematic review and meta-synthesis, reflect on the development and execution of the empirical research and critically review papers 1 and 2. Thereafter I will consider the implications of the developed theories for clinical practice.

The origins of the research idea

I first became interested in the concept of resilience within clinical staff working in acute hospital settings when my sister, a specialist physiotherapist who has worked in a variety of acute settings, experienced health anxiety. My sister has always been an incredibly resilient woman, however with a family bereavement and a house move, her resilience at home and at work waivered. She began to experience intense health anxiety relating to neurological conditions she would routinely treat at work. She experienced a period of intense psychological distress. Additionally, the distress she would previously absorb from patients, she could no longer tolerate. Despite her distress, she did not receive nor ask for psychological or practical support within the work setting. In conversations with my sister about her experience I began to wonder about the tipping point between resilience and psychological distress in healthcare professionals who witness trauma and absorb others’ distress on daily basis.
Driven by this question, I conducted a brief and preliminarily review of recent documents relating to wellbeing of National Health Service (NHS) staff. Most prominently, the Point of Care Foundation (POCF, 2016) recently published a report conveying the importance of improving staff experience within NHS, highlighting high sickness rates due to stress, burnout or other mental health issues\(^1\). In this cursory review of the research I discovered that burnout has been increasingly identified amongst different medical professions\(^2\).

The financial implications of such high sickness absences across the NHS in a time of austerity are significant, placing additional financial burden upon individual services and the wider organisation. Moreover, the ongoing presence of burnout in NHS staff who continue to work also hold implications with research recognising a negative impact on staff performance, the quality of care provided to patients\(^3\), \(^4\) and consequently patient satisfaction\(^5\). I was struck by the concerns raised by POCF (2016) regarding the significant impact of burnout throughout NHS staff upon patient safety, mortality and experience\(^1\).

With the impact of burnout in mind, I mulled over this question of resilience and distress and subsequently sought support to develop this idea into a research question. To aid me in this task, I approached my now academic supervisor, Dr Victoria Samuel, and clinical supervisor, Dr Julie Highfield. Dr Victoria Samuel had previously worked as a Clinical Psychologist within a Paediatric Intensive Care Unit (PICU) and had extensive experience within research adopting a Grounded Theory approach. Likewise, Dr Julie Highfield was currently working as a Consultant Clinical Psychologist within an adult CCU within South Wales and had experience in qualitative research approaches. It was important that the supervisors of this research project had an understanding of
working in an acute medical setting to guide me within a world in which I was unfamiliar, and were able to support me in accessing a population of healthcare professionals working within an acute hospital.

Through conversations with my supervisors I became aware of the potential for the CCU environment to be highly emotive, stressful and pressurised. Considering the research in relation to the impact of working in such a potentially traumatic environment, it became apparent that there was a high prevalence of burnout across CCU medical staff teams internationally\textsuperscript{6-10}. However, in reviewing this research I became aware that much of the research pertains to nurses. Where physicians are included in research it is often in combination with nurses and does not specify whether physicians are trainees or consultants. Given the differences in job roles, responsibilities and hierarchy resulting in differing pressures on the individual, I was curious about whether this may hold differences in how nurses, trainees and consultants experience working in CCUs and the subsequent impact on the individual.

A pivotal paper within these initial stages was Gillian Colville and her team’s (2016) research on burnout and posttraumatic stress in paediatric CCUs\textsuperscript{10}. Gillian Colville sent this paper in manuscript form prior to its publication to inform our initial thoughts regarding a research question. In reading this paper I was struck by the finding that physicians are twice as likely to experience burnout than nurses, even after mediating for characteristics of resilience\textsuperscript{10}. This recognition made me wonder about a potentially different experience of burnout and resilience in the medical population within CCU and drove the development of the research question to explore resilience within the intensivist group.
The systematic review and meta-synthesis

Additional rationale

The principal aim of the systematic review and meta-synthesis was to contribute a deeper understanding of resilience and distress within CCU staff to the medical field. I was struck by the high prevalence of burnout and posttraumatic stress in CCU nurses and physicians and agreed with Colville et al (2016) that there was a need for further exploration of this phenomenon within such emotively charged medical specialisms to better understand the experiences and needs of CCU medical staff.

As I began to conduct preliminary searches I discovered that much of the research in this area was focused on quantitative prevalence rates of burnout, posttraumatic stress disorder, depression and anxiety which were quantified through parameters of medically driven diagnostic criteria. I quickly learned that a systematic review of the research relating to prevalence rates of burnout, compassion fatigue and posttraumatic stress within CCU staff, comparing these rates to staff working in different hospital settings had recently been conducted. This systematic review of the available quantitative literature highlighted some valuable and interesting contradictory findings associating a heightened risk of emotional distress with working in CCU and yet noting a lower rate of psychological disorders in CCU staff compared to staff in other hospital wards. It was suggested within this review that such contradictory evidence denotes the existence of personal and environmental factors which mediate distress when working in highly emotive environments, such as CCU.

With the growing body of evidence focusing on the prevalence rates of diagnostic psychological conditions of distress and resilience within CCU staff, there appeared to
be a scarcity of literature which explored the experiences and perceptions of CCU staff. As such, there remained a gap in the knowledge within research.

To gain a more in-depth understanding of the relationship between resilience and distress within this population of medical staff working in potentially traumatic environments of CCUs, I would need to explore the existing qualitative research available and conduct a meta-synthesis of the data. The completion of systematic reviews and meta-synthesis of the data have been considered to be crucial in order for the qualitative research base to be accurately summarised in a way which is reliable\textsuperscript{12}.

Through further searching of the literature I noted that there did not seem to be another meta-synthesis of qualitative research in this area. In conducting a qualitative review of the research, I hoped I would be able to build on the conclusions made by the authors of the recently conducted quantitative review\textsuperscript{11}. I recognised a distinct value in the conclusions of Van Mol et al (2015) indicating the presence of personal and environmental factors mediating burnout, compassion fatigue and posttraumatic stress\textsuperscript{11}. However, I felt that there was an additional value in reviewing the available qualitative research through deepening our understanding of the experiences of CCU staff and the mechanisms by which factors enhancing resilience interact with distress relating to work and how these are employed on a day to day basis.

\textbf{Searching the literature}

In approaching a search of the literature, it was important to ensure the process of searching was both systematic and transparent. Consequently, I followed the
guidance for the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)\textsuperscript{12}.

Recognising that the focus of this systematic review held a psychological perspective to the experiences within a medical field, I decided to search psychological, medical and nursing, allied health research databases. Having been unable to identify a previously conducted review of the qualitative research in this area, the four identified databases (PsycInfo; Medline; CINAHL; Web of Science) were searched from date of inception.

In considering search terms, I felt it important to ensure that all relevant articles were identified. I was aware from my preliminary searches that qualitative studies focusing on the emotional impact and resilience experienced by medical staff working in CCU were potentially minimal. Central to my strategy was therefore to keep search terms open whilst maintaining a focus on the emotional impact and resilience in CCU medical staff. This was achieved by searching with keywords in addition to wider subject headings employed by the databases to categorise papers.

Previous researchers have noted that it can be difficult to complete a comprehensive search of the literature which remains sensitive enough to ensure all relevant papers are identified due to keywords relating to the qualitative methodology or title and abstract descriptions of the studies being inadequate\textsuperscript{13-16}. Consequently, I decided to omit methodological search terms to be certain that all qualitative research would be captured within the literature search. As a result of such thorough searching, it was essential that I conduct a manual review of the titles and abstracts identified by the search in order to assess their eligibility for the study. I was initially overwhelmed by the vast quantity of 4560 titles and 342 abstracts I would need to review. However,
over the days in which screening took place, I began to feel confident that all relevant articles would be identified.

Establishing clear inclusion and exclusion criteria was vital to ensure that articles identified and screened within the literature search were relevant to the topic posed. As such, the criteria specified that articles referred to the personal experience of resilience or the emotional impact of working in an adult general medical CCU. This inclusion criteria was chosen as I had been made aware by intensivists that there are different experiences across different CCU specialisms. Furthermore, it felt important that I remain consistent with the area of practice with which my empirical paper was studying; general medical adult CCUs. This narrow focus was intended to enable a more in depth exploration of the emotional impact and resilience experienced by medical staff within this adult general medical CCU setting. However, I recognise that there are potentially several disadvantages to such a narrow focus.

Firstly, it is possible that in excluding papers which included paediatric or other adult specialist CCUs, the analysis may have missed some valuable insights into the similarities and differences across CCUs. Moreover, I was aware during the screening process that there were studies written in non-English languages which appeared to be relevant and could have given additional insights. However, these could not be included due to my own lacking linguistic skills. Likewise, there may have been unpublished literature or literature published in a non-peer-reviewed journal which could have contributed to the understanding developed within the review. However, it felt important to restrict studies to those which had been published in a peer-reviewed journal as an initial check on quality.
I was initially uncertain as to whether to include or exclude mixed methodologies within the meta-synthesis. After screening all potentially relevant full text articles, there was only one paper which met the focused inclusion criteria and adopted a mixed methodology, Laubach et al (1996)\textsuperscript{17}. However, on closer review, this paper appeared to be predominantly of a quantitative analysis with a less prevalent qualitative analysis. Furthermore, the concepts within the qualitative analysis were poorly defined and unclear. Therefore, I assessed that the qualitative methodology of this paper was of poor quality resulting in its exclusion. Consequently, only qualitative studies were included in the meta-synthesis, gaining consistency in methodological approach.

An additional reason for the decision to focus on qualitative research was to provide a different perspective and understanding gained from the recent systematic review of quantitative research reporting the prevalence rates of burnout, posttraumatic stress and compassion fatigue in CCU staff\textsuperscript{11}.

I believe that these inclusion and exclusion criteria allowed me to focus the search from a huge array of articles to those which facilitated my understanding of the emotional impact of working in adult general medical CCUs and the experience of resilience in the face of this.

**Critically appraising the studies**

Historically, the critical appraisal of the quality and rigour of qualitative studies has not been considered to be central to the process of meta-synthesis with researchers attributing more importance to being inclusive and not losing relevant studies from the review\textsuperscript{18}. However, I was aware that if the qualitative methodology was poor, the
findings of the studies may not accurately reflect the experiences of participants, thus presenting poor quality and inaccurate research. Consequently, I felt that the inclusion of a robust critical appraisal was vital when conducting a review and meta-synthesis of qualitative research to ensure the quality of the research being reviewed is of a high standard\(^\text{18}\), establishing a robust base from which a meta-synthesis can be conducted.

In considering formal appraisal tools for qualitative research, I decided to utilise the Critical Appraisal Skills Programme (CASP) qualitative research checklist\(^\text{19}\) as the tool which is employed most commonly. This CASP tool provided a checklist which guided a consideration of quality and gave a tangible score. However, CASP does not provide guidance regarding the interpretation of these scores. Therefore, it was difficult to ascertain a cut-off regarding which studies qualified as robust and of a high quality and therefore be included in the study. I felt strongly that the quality of research included in the meta-synthesis should be high. Consequently, I decided that studies would only be included if they scored 8/10 or above. I discussed this with my second reviewer who agreed that this cut-off would be a good indicator that studies were of a high quality.

In reviewing the CASP checklist, I found that scoring of the items remained remarkably subjective which contrasted my expectations of a clear and robust determinant of quality. Therefore, to aid me in this subjective yet guided critical appraisal of the identified qualitative studies, I continuously referred to the government framework for assessing quality in qualitative research\(^\text{20}\). Combining these two guidance tools enabled me to make informed and critical judgements regarding the quality of each item indicated by the CASP. On reflection, this process enhanced the critical appraisal
of the research, which whilst it remained subjective and open to interpretation, became more robust through the consultation of guidance\textsuperscript{20}.

In addition to quality, it was important that attention was given to the clarity of concepts within the papers. Considering meta-synthesis describes a process of interpreting and synthesising concepts, the clarity of the concept descriptions within the original papers was vital\textsuperscript{21}. Ambiguous and unclear concepts would therefore exclude a study from further review and meta-synthesis.

To further enhance rigour in the process and attempt to reduce subjectivity, I invited a second independent reviewer to critically appraise the qualitative studies adopting the same process. It became clear that despite these measures to enhance robustness, the process was inherently subjective. Considering the nature of qualitative research as entangled with the researcher’s interpretations of the data, perhaps subjectivity in the process of evaluating such research is inevitable. However, it is important to recognise that this process of critical appraisal ensured a level of robustness and quality within the qualitative studies included.

**Conducting a meta-synthesis of the studies**

Recognising the numerous methodologies to synthesise qualitative research, my initial steps were to review the methodologies in turn and consider the most appropriate approach for this meta-synthesis and for me as a researcher. Within this deliberation, it was important to consider the epistemology of the differing approaches and their fit with my understanding of the world. Appreciating that I was the vessel through which the process of interpretation occurred, I recognised that my understanding of reality,
my perspectives and my interaction with the data will influence its interpretation\textsuperscript{22}. As I reflected upon my epistemological position I recognised that my perception of reality is that we construct our realities within the context of relational interactions within a social group which collectively holds a series of shared understandings of the world. This position marries with the epistemology of objective idealism which informs grounded theory and meta-ethnographic methods of synthesis\textsuperscript{23}.

When considering approaches, I was also aware that the identified studies for this meta-synthesis adopted a variety of qualitative methodologies. Consequently, it was essential that approach would allow concepts to be synthesised across differing qualitative methodologies. This eliminated taking a grounded theory approach to synthesis due to it requiring a consistency of grounded theory methodologies in the original papers. Conversely, meta-ethnography holds a more flexible approach, allowing the synthesis of data which has originally been analysed using disparate qualitative methodologies\textsuperscript{21, 23, 24}.

Originally posed by Noblit and Hare (1988)\textsuperscript{21}, meta-ethnography was later described in a stepped process by Britten et al (2002)\textsuperscript{24}. It was this stepped description I followed throughout the process of meta-synthesis. Through exploring commonalities in the data and engaging in an interpretative process to develop an overarching theory, I very quickly became immersed in the data. At first, this immersion was overwhelming. However, as I explored the data the disparate voices appeared to come together. I began to see commonalities and understand their world through the process of striving to balance an attachment to the emotions of self and other with protecting oneself from the distress this attachment creates within the context of CCU.
In an effort to adhere to the principles of grounded theory, I did not commence the process of this systematic review and meta-ethnography until after I had conducted the interviews and interpretation of the data for my empirical study. Consequently, as the overarching theory began to form within the meta-ethnographic interpretation of the qualitative research, I became acutely aware of the similarities between this theory and the theory which emerged from the data of my empirical study. I was concerned that my understanding of this world of adult general medical CCU and its emotional impact and efforts to remain resilient had influenced my interpretation within the meta-ethnographic analysis. I was concerned about researcher and confirmatory bias.

Through taking this to supervision and discussing my interpretation and potential assumption, I felt strongly that the concepts which had emerged within analysis and the overarching theory developed were present in the data. In an endeavour to ascertain the reliability of my interpretation of the qualitative research data, I turned to the independent second reviewer to read my meta-ethnographic interpretation and offer her judgments. The independent second reviewer confirmed that the concepts described within the original papers translated well into the concepts and theory developed within the meta-ethnography. This second perspective goes some way to enhance the reliability of the synthesis. However, it is important to acknowledge that given my empirical research theory, my understanding of the CCU reality and my perspective which had been shaped by my research will have been present, influencing my interpretation of the data within the meta-ethnography.
Conclusions and implications

This systematic review and meta-ethnography provides a deepened understanding regarding the emotional experiences of medical staff working in the context of highly emotive and traumatic environments of CCU. In line with a meta-ethnographic approach I sought to develop an overarching theory to explain a wider picture within the process of balancing the relationship between risking distress through emotional attachment and protecting oneself through strategies of self-preservation. In bringing concepts together which appeared disparate in a way which seeks to comprehend their relationship, this theory has provided a new and expanded understanding of the complexity within the emotional experiences of CCU medical staff.

Throughout the analysis I was aware of the significant difference between the number of nurses and physicians included within the studies. The gulf between these populations were huge. However, it could also be considered that this difference in populations studied is in fact representative of the difference in numbers within CCU nurses and physicians. Furthermore, with a higher population of CCU nurses, recruitment for studies may be easier than in the physician population. Yet I was also aware from my time spent with intensivists that the roles of nurses, trainee physicians and consultant intensivists held considerable differences. These differences are not just within clinical responsibilities, but also in hierarchy and within the types of relationships with patients and families. These differences inherent within the roles may potentially give rise to disparate experiences. Furthermore, alongside the established need for research in resilience due to a lack of understanding regarding
the process\textsuperscript{10}, I felt this review further supported the need for my empirical research in to resilience in intensivists.

Whilst the restrictions of the review meant that there was a small number of studies included potentially limiting its scientific credibility and further its transferability, I feel it provides valuable additional insight to the field. This novel interpretation and theoretical understanding of emotional attachment and self-protection within CCU medical staff, holds potentially important implications for caring for CCU staff in nourishing resilience and the opportunities to process the emotional impact of the work in a way which feels psychologically safe.

The empirical research study

Developing the research

During the initial stages of research development, I was acutely aware of my inexperience in relation to being a researcher or a clinical psychologist with a medical field. Having never worked in an acute medical unit I was unfamiliar with medical terminology and further unaware of the dynamics within CCU daily routines. In relation to my study, this was both an advantage and a disadvantage. I was aware that in not being immersed within the dynamics of the medical world I would be able to engage in the research process without holding assumptions about the intensivists' experience. However, my inexperience meant that at these first stages in development I felt somewhat overwhelmed.

After a brief review of the literature and theoretical consideration, I spent time with an intensivist who worked on one of the CCUs included in the study but had resigned and
thus would not be partaking in the research. This experience helped me appreciate the reality of the role and provided an insight into the daily experience of an intensivist. From this first glimpse into their experience I witnessed the clinical certainty and resilience of intensivists in the face of patients’ trauma and families’ grief. An extract from my reflective log captures the emotion I experienced and my thoughts following this initial encounter with the intensivists world:

*I felt a heavy emotional reaction – sadness – at the weight of trauma patients presented with. An existential sense of life being fleeting yet tangible – this is life or death. And death is common. Despair is all too familiar. Families crying as their loved ones die. What a huge pressure is on the consultants, that weigh on their decisions. And yet they are light, jovial, knowledgeable, sure, certain. (Researcher’s Reflective Log Extract).

During this visit, I attended a consultants meeting and tentatively considered the clinical relevance of the developing research question. Intensivists expressed their opinion that research to understand resilience within CCU where there is a high risk of burnout would help them understand what would keep them well and in turn improve patients’ experience and outcomes, reflecting the conclusions of the POCF (2016) report.

Recognising my inexperience of CCUs and the impact of working as an intensivist, my supervisor connected me to a newly qualified consultant intensivist, Morgan (pseudonym) who had extensive experience of conducting research. Having written the research protocol, participant facing documents and interview schedule, I met with Morgan and discussed the clinical relevance of the research and further considered the appropriateness of questions within the interview schedule from the perspective of an intensivist working within a Welsh CCU. Morgan was particularly influential in relation to the interview schedule, giving me an insight into the nuances within
intensivist culture and ideas about how interview questions could be expanded. I felt that this consultation with Morgan within the process of research development was extremely valuable.

*Rationale for the use of grounded theory as a qualitative approach*

The aim of this research was to elucidate an understanding of resilience within intensivists. Implicit within this aim was seeking to gain a more in depth understanding of the processes by which intensivists stay well and keep working in the face of the potentially emotionally challenging and demanding critical care specialism. When considering this aim, I mused about what intensivists do to keep themselves well? What are the personal and environmental factors which facilitate a resilient response? What is the relationship between resilience and the emotional impact of the work?

Previous quantitative research has highlighted the high prevalence of burnout\(^6,10\) and depression\(^25\) in the intensivist population in addition to burnout and posttraumatic stress across the population of CCU medical staff\(^10\). Furthermore, research had suggested the presence of characteristics of resilience which were thought to mediate against burnout and posttraumatic stress in medical staff working in CCU\(^10,11\). Such quantitative research provides valuable knowledge regarding the significant level of diagnostic psychiatric disorders present within the intensivist and CCU professional population. However, adopting a qualitative methodology could deepen this understanding through exploring intensivists’ experiences of resilience including the processes by which intensivists stay well and the relationship between resilience and distress in the context of CCU. A qualitative exploration of how intensivists interact
with and experience resilience held the possibility of the development of a theory of resilience.

The dominance of quantitative research relating to psychological distress and resilience in CCU staff is understandable given the medical nature of this field. However, despite this dominance there are some high quality qualitative studies within this area of research, most of which adopt a phenomenological approach with a few using grounded theory. When considering which qualitative methodology was most appropriate for this study, the primary aim of elucidating a theory of resilience within intensivists’ and the processes within this remained central.

Throughout this contemplation I was aware that adopting a phenomenological approach such as Interpretative Phenomenological Analysis, as was often employed in previous qualitative studies in this area, could have enabled analysis providing a more immersed and idiosyncratic sense of the lived experience of intensivists’ interviewed. However, in consultation with my supervisors, grounded theory was decided upon to most abundantly meet the aims of this study. In adopting an approach of grounded theory, this study maintained an emphasis on elucidating and developing a wider conceptual theory of resilience within intensivists with an analytical focus on actions and processes as opposed to a description of themes or an interpretative contemplation of an individual experience.

**Ethics**

I was initially daunted by the prospect of applying for NHS Research and Development ethical approval for my study as the perception of this process within Wales is that it
is incredibly difficult. It is true that the process of completing the paperwork and considering the ethics of every possible scenario was difficult. Yet with support from my supervisors I found that it was possible. In fact, this process enabled me to get to know my study, to begin to live it before it began.

I was particularly aware of the emotive nature of the interview questions and felt it important to offer some time to intensivists at the end of the interview to debrief. Moreover, as part of the consideration of the participants’ wellbeing, I sought the support of involved UHBs occupational health or staff wellbeing services who agreed to allow me to signpost to their services following the interviews. This was particularly important considering emotive topics may have arisen within the interview for which intensivists potentially required ongoing support.

An additional ethical consideration related to participants’ anonymity. This seemed to be particularly important in this population due to the closeness of the Welsh intensivist network. I was concerned that it would be possible for intensivists to be easily identified if any identifiable information was included in the report. For this reason, I assigned gender neutral pseudonyms to each participant. In further attempt to protect anonymity, I decided to omit ages and ethnicities of participants, nor did I associate the names of the specific hospitals or UHBs to participants. Such measures of anonymity felt intensely important due to the sensitive and emotive nature of the interviews’ contents.

As part of this application, careful consideration was given to the inclusion and exclusion criteria. Most difficult was the decision regarding the length of time participants would be required to have been working in a CCU as an intensivist. Recognising the significant differences in roles between a trainee and an intensivist, I
was aware that there may be a transitional phase in which intensivists begin to take on the more senior role of consultant. Therefore, the decision was made that intensivists would be required to have been working in a CCU as an intensivist for over 1 year. This inclusion criteria would allow the intensivists to have gained sufficient experience of the realities and impact of the role and the acts of resilience they engage in to stay well.

Prior to submission of the application for ethical approval, I was put in contact with individual intensivists within each of the four UHBs who might be interested in being a principal investigator by my clinical supervisor who had links across CCUs in Wales. Engaging via email and phone to outline the proposed research and gaining the agreement of these intensivists to be principal leads was an important step.

Ethical approval was given by all four UHBs for the study to be carried out.

Following my successful navigation of this process, I was invited by the course to help deliver an ethics workshop for the 2nd year trainee clinical psychologists who were at the beginning stages of completing NHS ethics or Research and Development applications for their projects. This was an opportunity to share my learning from this experience. I understand from their feedback, that this workshop was highly valued by the 2nd year trainees.

**Recruitment**

Participants were recruited from across general medical adult CCUs within four Welsh NHS UHBs. This allowed for intensivists with a broad range of ages, backgrounds and clinical experience to be recruited. Despite this broad range of backgrounds, it is
notable that given the small population from which it was possible to recruit there may have been cultural norms present which may have inhibited the generalisability of the findings of this study to other UK areas.

In adherence with the research protocol approved by NHS UHB Research and Development Departments, participants were first approached by the principal lead identified in each UHB via an email invite to participate in the research written by me. In addition, where possible I attended consultants’ meetings to engage with intensivists. This approach of engagement with services and intensivists was effective in activating participation in the research. In fact, many intensivists appeared intrigued by the research and were very willing to partake. I found myself to be surprised by their willingness to take part in the study and pleased by how much they valued the research being conducted. I became aware that I had entered the process of recruitment with a scepticism and an inaccurate assumption that consultants would be too busy to give their time to a trainee’s study. The reality was very different. However, intensivists were very busy and booking in interviews was at times very difficult as the geographical area is large and such flexibility meant many hours of driving over many months.

As recruitment continued, this initial surge of interest died down and recruitment became more difficult. With the challenge of recruitment becoming more difficult in a small pool of possible participants, it was important for me to continue strategies of engagement and email principal investigators to generate additional participants.

Recruitment was staggered between UHBs to allow for the process of analysis occurring simultaneously to inform the subsequent interviews in line with the principles of grounded theory\textsuperscript{22}. Following these staggered initial phases of recruitment across
the four UHBs a process of theoretical sampling was adopted, consistent with grounded theory\textsuperscript{22}.

**Interviews**

*The interview schedule*

In developing the interview schedule, the guidance outlined by Charmaz (2014)\textsuperscript{22} was closely followed. The development of the questions within the interview guide were constructed in conjunction with conversations with supervisors and with reference to relevant literature. It was important to have some awareness of the previous research conducted in the area as a tentative tool from which I could begin to develop ideas and thoughts, guiding the conception of the interview schedule and initial stages of analysis\textsuperscript{22}.

The process of developing the interview schedule enabled me to begin to contemplate more fully the aims of the research question. The development of the questions facilitated an increased insight into my own assumptions and interests in the study and how this might shape the interviews\textsuperscript{22}. I was particularly aware of my own assumptions that being exposed to the physical traumas of patients would be traumatic for intensivists’. I was further aware of my clinical interests in attachment\textsuperscript{32} and relational psychodynamic psychological theory\textsuperscript{33, 34}. With this awareness, I reflected upon my assumptions rooted in my clinical interests and recognised that in engaging in the interviews and analysis I may have a tendency to interpret intensivists to be engaging in defence mechanisms in order to defend themselves against an emotional experience hidden within their subconscious. Supervision was essential throughout this process to enable me to reflect on these assumptions and interests and ensure
that the interview schedule remained consistent with the grounded theory approach. Through supervision and with these assumptions in mind, I recognised that it was important for me to ensure that questions were open-ended and focused on the intensivists’ experiences of the work rather than being guided by my clinical interests and assumptions. As a result of this reflexive process, questions were developed to be open-ended and non-judgemental throughout. Questions were initially broad in exploring intensivists’ experiences of working in Welsh CCUs and subsequently moved towards becoming more focused to invite more in depth discussion regarding the emotional impact of the intensivist role and strategies of resilience, in line with grounded theory. The construction of the interview guide was essential in influencing the balance between open and focussed exploration within the interview process.

Engaging in this process of reflection and construction of the questions prepared me for the interview. Through creating and refining questions I began to understand their purpose, enabling me to begin to comprehend how these questions could be asked in an open and non-judgemental way within a conversational style of interview.

Given the flexible though systematic nature of the iterative and inductive approach inherent to grounded theory, I was continually engaged in an interactive process of the collection and analysis of the data which occurred concurrently, continually moving between the two. Within this evolving and iterative process, as themes and concepts began to emerge from the analysis, I revised and refined the interview questions to guide the interviews towards an increasing focus exploring these in a more detailed way.
The experience of interviewing

Recognising the importance for intensivists to feel comfortable in their environment given the potentially sensitive nature of the conversation, participants were offered a choice of locations. Interestingly almost all intensivists chose for interviews to be conducted in an office on NHS premises within CCUs. Only one intensivist requested the interview be conducted in their home.

Interviewing in an office based on CCUs meant that there were often frequent interruptions to the interview. Interviews were often arranged for times when intensivists were at the beginning or end of a shift, or had come in for a meeting. Despite intensivists being present on CCU at a time when they were not on duty, they were frequently called upon to assist in urgent clinical situations. Consequently, it was a regular occurrence for intensivists to arrive late or pause the interview due to being required for a consultation or for urgent clinical intervention. Initially I recall feeling frustrated and irritated by having to wait. I imagined the consultant’s perceptions of me to be as a lowly student, an inferior professional, an inferior being who could afford to wait. Yet as they arrived, consistently consultants apologised. On one instance, the intensivist explained that s/he had been drawn in to a cardiac arrest and had been the person who had decided to cease intervention, to allow the patient to die. In this moment, my viewpoint shifted dramatically. I reflected on my previous internal assumptions which I now recognised as rooted in my own history, my own self-critical beliefs of inferiority. Instead I was awe struck, in complete admiration of this intensivist who had endeavoured to prevent death but ultimately felt it was kinder to allow the patient to succumb to it. I began to wonder about the societal perception of doctors, of
the power society gives to them and how this links to life and death. An extract from my reflective log captures my thoughts at this time:

Waiting for the consultant I felt a sense of irritation. Yet noticing this feeling subsiding I hold in mind the reason – the knowledge that the doctor has been occupied by an emergency, a cardiac arrest – preventing and allowing death. I wonder if this is a sensation often felt when others encounter doctors in this and in other emergency fields of medicine? A cacophony of awe, admiration and a sense that by comparison my task is unimportant. I wonder about the societal perception of doctors’ superiority and question whether it is this which feeds it – the knowledge that a doctor defies death at every corner. A feat which us lowly mortals can never do. We as humans have an ever-closer sense of mortality and death. Doctors defy this. Perhaps playing into our fantasy of the immortal. The avoidance of death. (Researchers’ Reflective Log Extract).

In this and in other interviews, I was aware of there being a palpable power dynamic which could have influenced the dynamics and subsequent direction and content of the interviews. Consultants were highly qualified and at the top of their field both clinically and hierarchically whilst I was a trainee, beginning my career. In addition, at the time of conducting this research, I am a 29 year old female interviewing an older and predominantly male population potentially adding to a societally imposed power imbalance. Yet having reflected on this dynamic I believe that its potential impact on the interview content was minimal. Intensivists appeared very willing to engage in the study and had extensive experience of and interest in the focus of the interviews. Furthermore, I worked hard to achieve a positive relational rapport with intensivists from the moment we met, enabling us to move quickly through this power imbalance and begin to explore the topic more openly.

Prior to meeting, I had emailed participants a research overview, participant information sheet and consent form (Appendix 10 and 11). However, these were
revisited and discussed prior to commencing the interview to ensure intensivists fully
understood and consented to partake in the research. Establishing a report within a
relationship with the intensivists was essential to the interview process. Although I had
met some participants during prior visits to CCUs, some I had not. Furthermore, due
to the nature of the research, this interview would be an isolated conversation. As
such, holding an engaging manner within these first moments of meeting in which we
completed the relevant forms was vital.

As a novice to grounded theory, I was daunted by the task of conducting the first
interview. I was anxious. My anxiety was especially rooted in my desire to get it right,
to balance an openness with the movement towards more focused questioning, to not
sound ridged and to embody the intensive interview style. This felt intensely important
to me as I recognised the centrality to the research of facilitating intensivists’
exploration and expression of their experience. Consequently, I was intently mindful
of not leading the participant down a route of exploration which was based in my own
assumptions whilst allowing a flexibility within an open interactional space to explore
arising ideas and themes, consistent with the approach of intensive interviewing\textsuperscript{22}. In
these initial interviews this was difficult and thus I often read from the interview
schedule, not yet knowing the questions well enough to be more conversational.

As my confidence increased this balance became easier. I began to develop a more
relaxed, curious, flexible and conversational interview style. I did not need to read from
the schedule and felt freer to follow arising themes whilst remaining focused on the
exploration of the topic and returning to questions within the interview schedule. As
my confidence grew I began to adopt a more emergent technique of interviewing
combining both flexibility and control, consistent with intensive interviewing\textsuperscript{22}. My
emerging interview technique and natural, open questioning style was reflected on by my supervisor who read the transcripts and further commented on how successfully I had developed a good rapport with intensivists.

Following this first interview, I recall my surprise at how open and insightful the intensivist was with me. It was at this point that I was able to reflect on my prior assumptions that intensivists might be closed and lacking insight into their internal world. I considered this within my reflective log engaging in a process of reflexivity:

*I am taken aback by the insightfulness of this intensivist and their willingness to share experiences of burnout, distress and their subsequent clamber to process this and regain a semblance of resilience. Their honesty was remarkable. I feel privileged that they felt able to share their experience with me with such openness. Yet I am left wondering about why this feels so surprising. I recognise now that I entered this interview expecting the intensivist to be closed, to be disconnected from their internal world. And yet I am struggling to comprehend why I assumed this would be the case and I wonder again about societal perception of consultants...did I carry into this interview a societal construction of consultants as cold and disconnected? With this assumption now in my awareness, I must endeavour to not allow this to influence future interviews, I must ensure that I will be open to intensivists’ experience of their internal and external world, in whichever way they experience it. (Researcher’s Reflective Log Extract).*

This first experience challenged my assumptions and enabled me to continue the process of interviewing having shed such assumptions and instead approach subsequent interviews with a greater openness to the internal world of intensivists.

As interviews progressed I noticed a pattern within intensivists’ communication style. The rate of conversation was fast paced, moving quickly between differing yet interconnecting themes. The complexity of conversation was high. Through the process of interviewing and transcribing I noticed a discrepancy between what I
understood implicitly within the interviews and what consultants actually said. Much of
the emotional content which I felt implicitly when I was with each intensivist, remained
unsaid by the consultants or was said by me in an attempt to communicate my
understanding. Consequently, this unsaid implicit content remained non-existent for
the purposes of coding the transcripts and further analysis. Recognising this
occurrence of content remaining unsaid, I could have employed discourse analysis\textsuperscript{36}
to capture the dynamics of the conversation itself; considering what was not said
through structure, syntax, tone, pace and pitch. However, without undertaking formal
discourse analysis, I began to make parallels between unspoken emotions and the
emerging concepts of connection and protected disconnection. Holding an awareness
of this common relational pattern enabled me to ensure that I sought clarification of
the unspoken content.

\textit{Theoretical sampling}

Consistent with the concept of theoretical sampling embedded within grounded
theory\textsuperscript{22}, questions within the interview scheduled were amended. The purpose of this
form of theoretical sampling was to gain increased insight into aspects of the data
which were beginning to form into concepts yet remained unclear and to develop and
refine emerging concepts and theories. This process of amending the interview
schedule occurred throughout interviews but became more focused towards the latter
half of the set of interviews when concepts and theory began to emerge. Questions
moved to enquire more deeply and in a more focused way regarding intensivists’
experience of vulnerability and stress alongside exploring intensivists’ perception of
the risks and benefits of protected disconnection and connection. By engaging in this
process, I was able to deepen the understanding within the emerging concepts, adding a richness to the data. Yet at times, due to the complexity of the processes and experiences described by intensivists’, such questions contributed ambiguity which in fact added to my confusion rather than adding clarity to the emerging concepts. However, as the theory began to crystallise, through conducting theoretical sampling, it was possible for me to tentatively present and explore the emerging concepts and theory to three intensivists and encourage them to express their perceptions regarding whether my interpretations accurately reflected their own or their observations of colleagues’ experiences.

Alongside this focusing of questions, guided by the developing concepts and theory emerging from the data, at two points within the research process theoretical sampling took place in relation to the selection of participants. After interview 5, sampling was directed by an awareness that there was a need to speak with intensivists who worked in smaller units. After interview 8, it appeared the theory was starting to emerge. As such, the final interviews were used to clarify and test out the emerging theory by further developing and refining categories which had emerged yet perhaps remained a little unclear. Consequently, in the second incidence of theoretical sampling, the final two interviewees were sought through principal investigators to embody differing aspects to previous participants. Previous intensivists had all mentioned challenges of the role. Consequently, for interview 10 I sought out an intensivist who the principal investigator knew denied being stressed because of experiences at work. This perspective was important to capture as it contrasted with the concept relating to the impact of the intensivist role and added depth to the concept of self-resilience. The final interview was with a less experienced intensivist. This intensivist’s narrative felt important to hear due to the emerging concept of experience
and habitation to the role as central in developing self-resilience. Both intensivists added significant value and clarity to the emerging concepts and theories, adding a richness in contrasting viewpoints essential to grounded theory\textsuperscript{22}.

Participants' experience of interviews

Reflecting upon what it was like for intensivists to engage in the interviews I am reminded of the interview with Caerwyn. As Caerwyn explored his/her experience of trauma s/he began to connect to the emotional and psychological experience which had previously been avoided and dissociated from. In connecting to the emotion, Caerwyn began to process the trauma. Debriefing after the interview, Caerwyn thanked me for the interview, stating that talking through this experience had been in some way healing. In bringing this feeling into Caerwyn’s awareness, s/he was able to process it and release some of the power it held over him/her. I ensured that Caerwyn had the information regarding relevant support networks in addition to my clinical supervisors contact details (the CCU psychologist) to enable a continued psychological intervention.

For other intensivists, the interview was less profound. For one intensivist, I experienced a sense that my questions were experienced as psychologically threatening. This perceived threat appeared to raise the intensivists’ defences as s/he became distant, short and dismissive. Within this dynamic there was a co-created tension in which neither of us felt safe. I was interested to reflect upon the differences in reactions to the interview and began to recognise a parallel process in how intensivists’ experience the interview with the emerging concepts and theory of resilience.
Analysis

Transcribing

Initially I had hoped that I would be able to transcribe all interviews myself, recognising transcription as a potentially valuable aspect of qualitative research. As I commenced this task I became aware that there was a significant amount of data within each interview. I reflected on the role of an intensivist which requires rapid thinking and communication. I noticed how this appeared to translate into a fast-paced way of communicating which is rich in facts and free of pauses. Consequently, the data which I collected held more content per hour of interview than one might normally expect.

Given the quantity of content in each interview combined with my inexperience in transcribing, this became an overwhelming and impossible task to complete within the time constraints. Consequently, after transcribing 4 interviews, I recruited a professional transcriber, who signed a confidentiality agreement, to complete further transcriptions.

Coding and Memos

Following the transcription of each interview, I analysed the data through the use of coding and memo writing as the principles of constructivist grounded theory dictate. I engaged in this process of analysis in conjunction with ongoing data collection to allow the concepts and theories emerging from the data to shape and guide the alterations within the interview schedule and theoretical sampling aimed to clarify and deepen the understanding of developing concepts.
Due to challenges in relation to time constraints and the restricted availability of intensivists, it was not always possible to analyse transcripts prior to the next interview being conducted. This was a huge challenge and resulted in the concurrent analysis of several interviews. On reflection, I wonder whether I prioritised the schedules of intensivists over my own needs and the needs of my research. Within this, I am again reminded of the power imbalance I experienced; I needed intensivists to partake in my study and with an awareness of their job roles, I was prepared to be overly flexible to meet them at their convenience at the sacrifice of my own. I took this dilemma to supervision, recognising that this was not in line with grounded theory. On the advice of my supervisor I took a break from interviews in order to complete the coding and analysis of interviews prior to continuing with the interview process. Subsequently, I re-engaged with the concurrent process of data collection and analysis, in line with grounded theory. If I were to replicate this study or conduct further research adopting a grounded theory methodology, I would ensure that I allowed adequate time between interviews to properly engage in the process of coding and memo writing, prioritising adherence to the methodology.

As recommended as a measure of quality in qualitative research to ensure rigour, nine of the coded transcripts were subjected to being checked by a second researcher, my academic supervisor. These checks of credibility and quality indicated that the second researcher was largely in agreement with my initial and focused codes, with only a few suggestions regarding additional codes or raising an initial code up to a focused code. Two examples of coded transcripts which have been second coded can be seen in Appendix 16. In addition, the emerging theory was checked with my clinical supervisor who confirmed that the theory resonated with her clinical experiences of intensivists, as a psychologist within CCUs.
Throughout analysis I engaged in the process of memo-writing whereby I was absorbed in a continuous comparison of the codes, enabling analysis and the recognition of connections and discrepancies within the data giving rise to new avenues of exploration\textsuperscript{22}. During this process, I consistently experienced a sense of being overwhelmed by the enormity of the data, of the analysis and of the processes present within intensivists’ narratives. There were many times I felt as if I was being buried under transcripts and words. As I moved towards the end of the analysis process I began to experience moments of clarity, however, these moments were fleeting and my brain quickly felt clouded and overwhelmed. I began to wonder about a possible parallel process. I had noticed that within the interviews a pattern of communication was a fast-paced narrative in which threads were often lost or dropped and later remembered and returned to. I wondered if this in some way reflected the experience of working in the highly intense environment of CCU where the pace is fast and the balance of psychological safety continually moves inhibiting your thought processes.

It wasn’t until I began to write the report, that the theory which had been moving in and out of focus for some time, became clearer. My experience of drawing concepts together to crystallise my theory within the report writing process is consistent with grounded theory which recognises that this methodological approach extends throughout this aspect of the process\textsuperscript{22}.

**Further psychological consideration of the developed theory**

Due to the target journal for this research being medical, it was not always possible to incorporate and make explicit links to psychological theory. As I feel this psychological
perspective is important in understanding the processes identified within resilience in intensivists I will discuss this further below.

**Psychological Resilience**

Within the current literature, there is no conclusive and consistent definition of psychological resilience, with multiple authors posing slightly differing conceptualisations\(^{37}\). Frequently, psychological resilience is considered to be the capacity to positively adapt and thrive when faced with adversity, stress or trauma which risks psychological distress through engaging in a dynamic process of psychological resilience, drawing upon multidimensional personal characteristics and environmental resources\(^{38-41}\).

Much of the research base into resilience is rooted in developmental psychology. However, recognising the presence of resilience across the lifespan, a further definition of resilience in adulthood has been posed as the capacity to remain psychologically stable and resist maladaptive reactions in the face of adversity and challenging situations; to keep living life\(^{42,43}\). As such, resilience is perceived across the literature to be a protective and dynamic process of positive adaptation to challenging, stressful and adverse life events.

This definition resonates with the characteristics of resilience elucidated within my empirical research: intensivists engage in acts to mediate their connection to vulnerability in order to keep working, to keep going. The majority of research into resilience in adults has focused on individual factors\(^{41}\). However, within the consideration of the protection of resilience, psychological literature has
conceptualised there to be three layers of resources which facilitate resilience through a dynamic process: individual characteristics, immediate social support, and wider societal factors\textsuperscript{41, 44, 45}. Presenting a more systemic understanding of the interconnected interactions between the individual with group and societal, cultural, institutional resources in facilitating resilience, this theory mirrors the developed model of resilience in intensivists within my empirical study.

Inherent within the definition of resilience is the presence of adversity experienced as a significant threat with a perceived harmful outcome\textsuperscript{41}. It is notable therefore that for one of the intensivists interviewed, the intensivist role was experienced to not be stressful. Considering the psychological theory in relation to this experience, it possible that intensivists who do not experience the role as stressful may be engaging in a process of appraising the subjective meaning within the encounter with their environment as non-stressful\textsuperscript{46}. Some intensivists are not interpreting the events in the environment to be threatening or adverse and consequently they do not experience a stressful response. This may be because they have developed protective characteristics of resilience; for some intensivists, the role is genuinely experienced as non-aversive, non-threatening and subsequently not stressful. However, it is also possible that they are denying the reaction of stress through distortion of reality or efforts to detach oneself, consistent with Folkman and Lazarus’ (1988) theory regarding the appraisal of stress\textsuperscript{46}.

\textit{Development of resilience: A psychological consideration}

Within the analysis of the data, a concept arose in the intensivists’ contemplation of how resilience developed and why they as a population felt they were more resilient
than trainees who had not been able to cope with this specialism. Throughout this contemplation, intensivists’ spoke of two perceptions; resilience was a stable aspect of personality which formed during childhood experiences and that resilience emerged through a process of habituation to the role of an intensivist and the CCU environment. Whilst these two perceptions initially appear disparate, it is feasible that both positions can be held within psychological theory.

Within the theory of attachment, infants are driven by an innate instinct to seek proximity to caregiving adults in order to survive and regulate affect\textsuperscript{32}. Within these early childhood experiences we learn the skills of affect regulation through engagement in a dynamic intersubjective relational process where the parent soothes and co-regulates the infant’s emotional experience\textsuperscript{47, 48}. Early experiences of affect attunement are recognised as fundamental in the development of our emotional and social world on an experiential and neuropsychological level, influencing the way we communicate our experience in relationship with others throughout life\textsuperscript{49, 50}. Attachment theory considers that our experiences within these early relational encounters shape our internal working model, how we perceive ourselves in relation to others and the world, influencing how we understand and interpret experiences throughout life\textsuperscript{32}.

Without fully understanding the histories of the intensivists interviewed, it is impossible to make conclusive statements regarding their patterns of attachment and relating. However, it is possible to hypothesise generally that early relational experiences may have shaped how intensivists perceive themselves in relation to patients, colleagues and to the nature of their work and CCU environment. For some, there was evidence of the ability to manage stressful situations and regulate their affect whilst for other this
was more difficult potentially resulting in attempts to survive through disconnection, avoidance and engaging in coping strategies which dissociated them from emotion.

*Psychodynamic and psychological interpretation of the theory of resilience*

Drawing on a psychodynamic theoretical position, it is possible to understand the developed theory of resilience and vulnerability through the concept of defence mechanisms as a means to defend against a hidden feeling too painful to allow into consciousness\(^33, 34, 51\).

The psychodynamic model of the triangle of conflict\(^51\) facilitates a formulation of the relationship between vulnerability and resilience. To represent this theoretical perspective, I will consider a psychodynamic formulation of intensivists’ descriptions of empathy as an example.

Sitting with a family in their despair, the intensivist knows that the family need their support, their understanding, their empathy. As the intensivist allows in the family’s pain of loss and death, they experience a rising of anxiety in their body. Truly empathising with the depths of their pain is just too ‘dangerous’. There may be a fear that if this pain of loss and death is allowed in, it will be overwhelming and the intensivist may not be able to continue working. Responding to these feelings of anxiety, the intensivist adopts a defence, distancing him/herself from the family and disconnecting from the emotional experience. This defence is employed to push down the emotion and rising anxiety. The feeling experienced triggers anxiety which is immediately responded to by a defence which represses and hides the feeling\(^33, 51\).
In this formulation, the underlying feeling becomes hidden, defended against. And yet, psychodynamic approaches to interventions would consider the therapeutic process to involve bringing the hidden feeling and dynamic defensive response into conscious awareness to enable an individual to process feelings which are experienced as dangerous\textsuperscript{33}.

In this way, it is possible to make a connection to the developed theory of a movement between connection and protected disconnection to vulnerability in intensivists. Intensivists held an awareness of the need to connect to their own emotional experience to enable them to process the psychological impact of the work. In a reflection of this process, intensivists described talking about their frustrations and emotional experiences within the support network and with partners, enabling them to connect to their feelings and process them safely. Yet, getting too close to the intensity of the emotional experiences so prolific within CCU remained for many, just too ‘dangerous’. Consequently, intensivists frequently described engaging in what could be perceived as defences such as avoidance, disconnection or denial, to protect themselves from the pain which they feared would ‘break’ them.

The psychodynamic perception of the active process of bringing hidden feelings into awareness could be seen to be mirrored in the psychological literature which highlights the role of mindfulness and acceptance as central elements of psychological resilience in the face of trauma\textsuperscript{37}. Furthermore, research demonstrates that engaging in experiential avoidance, dissociation and coping strategies which incorporate a disconnection from emotion, is associated with greater symptoms of posttraumatic stress and psychological distress\textsuperscript{37}. The presence of experiential avoidance within
CCU nurses has been recognised within research which demonstrates its association with burnout\textsuperscript{52}.

Within the literature, mindfulness is described as the ability to self-regulate attention and accept present experience encompassing a letting go of judgements regarding experience\textsuperscript{53, 54}. In an overlapping construct, acceptance is considered to involve the perception of psychological experiences as understandable reactions to events which are temporary, as opposed to an excruciating psychological experience which cannot be tolerated and must be avoided\textsuperscript{55}. Engaging in this process enables a decentring of the events and resulting psychological and emotional reaction\textsuperscript{55}. It is possible to again recognise the process of resilience within the balance of connection and protective disconnection intensivists are engaged in within this psychological theory. Through connecting to and accepting the psychological response to emotion and death permeating CCU, intensivists can process this, acknowledge the experience as transient and accept death as part of life, enabling them to keep going.

\textit{Rigour and Reflexivity}

Engaging in strategies of rigour was vital throughout this research process in order to enhance the standard of quality within this study, in line with the quality framework for qualitative research\textsuperscript{20}. Throughout this paper, I have reflected upon such processes of rigour. Engaging in supervision and practices of reflexivity enabled me to recognise and bracket off my assumptions and interests ensuring that these did not predetermine how I interpreted the data and consequently the developing theory.
Critical evaluation of the research

As mentioned in the empirical paper, due to the medical specialty and specifics of the geographical area, the population available from which I could recruit was relatively small. In addition, the networks between CCUs across Wales are strong and as such intensivists know each other well. Consequently, it is possible that the accounts of the intensivists may not have fully represented their experience due to concerns that their comments could identify them to their colleagues and organisational structures.

In a further limitation of the process of this study I acknowledge that due to the focus of this study, questions posed to intensivists were centred around resilience. Consequently, it is possible that the interview questions implicitly quashed discussion around challenges consultants experience, creating an inaccurate sense of its subordinate position to resilience in this intensivist population.

Conclusions and implications

The theory which has emerged from the data within this study has provided a unique and in depth understanding of the complex processes of resilience engaged in by intensivists. As mentioned in the empirical paper, such an understanding in to resilience in this population of medics could have significant clinical implications, informing future interventions to improve intensivists’ resilience and wellbeing. Such interventions could be targeted across three levels of influence: individual; the intensivist group; and the wider organisation.

At an individual level, the presence of a psychologist within CCUs could enable the provision of individual psychological support. Individual, focused psychological
interventions could enable intensivists to express and process their personal struggle with trauma, burnout and with connecting to the pain embodied within CCU.

At a group level, interventions could incorporate educational programmes around resilience, self-care and the impact of CCU on intensivists. Recognising the connection between resilience and support within the intensivist group, further interventions could involve developing group psychological interventions focused around exploring the emotional and psychological impact of the work, facilitating psychological safety and encouraging a culture of openness. Such groups could follow a format of psychological supervision or be rooted in a more structured programme such as Schwartz Centre Rounds which have been successfully established across England and have recently been introduced within some Welsh hospitals. Evaluations of Schwartz Centre Rounds within England have found that those who attend report that they are significantly more likely to be able to cope with the psychological and emotional demands of clinical work with enhanced empathy and experienced significantly reduced levels of stress. Moreover, attendees experienced improvements in their capacity to address their own emotional and psychological needs. The provision of Schwartz Centre Rounds within CCU could therefore provide a potentially effective group structure as means to support intensivists and encourage their connection to emotional experience and improve resilience within the population.

Research has shown that acceptance and mindfulness are influential in building resilience to trauma. Interventions drawing on Acceptance and Commitment Therapy could help intensivists to continue to provide care and further develop resilience. In addition, findings from research indicate that mindfulness interventions which incorporate lovingkindness increase self-compassion and positively impact on
the physical and mental health of healthcare professionals\textsuperscript{61}. Consequently, introducing mindfulness based interventions for medical professionals holds significant potential to reduce stress and improve patient care\textsuperscript{60}.

A further possible intervention could be the introduction of peer-mentoring programmes in which experienced intensivists offer guidance and support to newly qualified consultants. The development and implementation of such interventions may have an impact upon intensivist wellbeing, reducing sickness levels\textsuperscript{1} and consequently influencing the sustainability of Critical Care Services.

Research highlights improvements within patient care and a reduction in mortality rates when there is increased working satisfaction and compassion to self, colleagues and patients\textsuperscript{1, 62}. In providing individual and group psychological interventions to facilitate emotional expression, compassion and acceptance, nourishing resilience, the organisation would represent a shift within their culture, taking care of intensivists and other NHS professions, enabling them to more effectively care for patients.

In recent years, the Welsh Assembly Government has legislated a strategy to improve the psychological wellbeing of the Welsh population\textsuperscript{63} and consequently develop a culture within which a psychologically informed approach is adopted across Welsh NHS\textsuperscript{64}. As part of the Welsh population, it is essential that our medical staff are not forgotten within this policy. In recognising the possible psychological impact upon intensivists in continuing to work in a highly traumatic environment with increasing patient demand where they are expected to work longer with an increasing retirement age, the importance of psychologically supporting these consultants becomes clear. To this end, there are significant implications regarding the management structure in recognising the need to validate the struggles faced by intensivists and the impact of
this work. It feels important for there to be wider awareness regarding the significant impact resource cuts have, not just on patient care but on the ability for professionals to do the job to the best of their ability and furthermore, on professional burnout. I agree with Frith-Cozens et al (2009) who conclude in their report that the wider hospital and NHS organisation must show compassion towards their staff to enable their staff to show compassion for their patients, embodying principles of compassionate care.

This unique research adds value to both the current evidence and the clinical realities of intensivists working within CCUs. The complexities of understanding gained through this qualitative research may have remained hidden within a quantitative research design in identifying the presence of psychological distress. Yet it will be important for the developed theory within this study to be tested in future research. Such research could elucidate further the relational and self-resilience strategies identified within this theory to be protective against psychological distress. In addition, further research exploring the factors which might predict intensivists’ ability to engage in these strategies. Such studies could consider the impact of life experiences which potentially have a formative impact upon resilience and within this to explore factors such as attachment and emotional avoidance. Further research could also be conducted to evaluate the feasibility and impact of possible interventions to nourish resilience as outlined above. It would be useful to replicate this study across UK to ascertain if there are regional variances or cultural norms that impact on intensivists’ resilience. Finally, considering echoes of this process within Greek paediatric healthcare professionals, future research could explore whether this theory of resilience is present for other medical and non-medical professions. Such explorations would allow consideration as to whether this resilience process is unique to this group of Welsh intensivists or is something more fundamental in the human relationship to vulnerability and resilience.
My learning

The experience of conducting a systematic review and empirical study has given me an appreciation of the importance of research within the clinical psychology profession. As a psychologist engaging a process of qualitative research within a medical setting I became acutely aware of the pivotal role clinical psychology has to play is supporting the emotional and psychological wellbeing of medical staff in a world where psychological health is considered to be a theoretical topic rather than a lived experience. Recognising the multifaceted role of a clinical psychologist encompassing clinical, research and leadership responsibilities, I began to comprehend our unique opportunity to engage with organisational structures to improve psychological awareness and develop appropriate interventions to enhance wellbeing and resilience within medical professions.

In this way, not only have I learned the mechanics of conducting research through engaging in this process, but I have also grown as a psychologist to understand the value of research in practice. This has been a challenging yet enlightening process. In recognising its value, I hope to engage in research throughout my future career to enhance and appraise the evidence-base, informing my clinical practice and further guiding a psychological perspective within organisational and service development.

Dissemination

In ensuring that this research is seen by the intensivist community for whom this study is most significant, it was important for the target journal to be directly linked to Critical Care and intensivists. As such I plan to submit both the review and empirical papers
to the peer-reviewed Journal of the Intensive Care Society (JICS). I am aware that there is discrepancy between the word count advised in the author guidelines for submission, however I felt that given the requirements of a doctoral thesis and the complexity of the findings, additional exploration of this topic was required. Furthermore, my clinical supervisor has spoken with the editor of JICS who has expressed his agreement to consider publication of these papers with a higher word count.

In addition to publication, I plan to submit an abstract to present at the Division for Clinical Psychology conference in Wales in 2018. Furthermore, I have agreed to present both the review and empirical papers at the UK Intensive Care Society Conference in September 2017 which will focus on wellbeing. Moreover, I have spoken with the Welsh Intensive Care Society and plan to also present the findings of this study at their next conference.

I believe it is important to disseminate the findings of this research directly to intensivists themselves. Such direct dissemination may lead to an acceptance and normalisation of the psychological impact of their work and further give permission for intensivists to openly discuss the experiences and dilemmas within their role.
References


52. Iglesias MEL, de Bengoa Vallejo RB and Fuentes PS. The relationship between experiential avoidance and burnout syndrome in critical care nurses: A


Appendices
Appendix 1: Journal of the Intensive Care Society author guidelines

The Journal of the Intensive Care Society (JICS) is a peer-reviewed journal published four times a year in February, May, August and November. The journal publishes original papers, review articles, critically appraised topics, case reports and audits of interest to all those involved in caring for critically ill patients. The editorial board recognises the multidisciplinary nature of critical care and encourages submissions from all specialities involved in research, clinical practice and management.

JICS is the official journal of the UK Intensive Care Society (ICS). The (ICS) was founded in 1970 as the first national society for intensivists, bringing together all clinicians involved in intensive care. The primary aims of the ICS are to foster education and research, to develop clinical standards, to enhance patient safety and to encourage professional development.

This journal is a member of the Committee on Publication Ethics (COPE).

1. Peer review policy

The Journal of the Intensive Care Society (JICS) adheres to a rigorous double-blind reviewing policy in which the identity of both the reviewer and author are always concealed from both parties. Each manuscript is reviewed by at least two referees. All manuscripts are reviewed as rapidly as possible, and an editorial decision is generally reached within (eg) 4-6 weeks of submission. Reviewers will have expertise in the field and must be independent. Reviewers will be made aware of the expectations of JICS and the review process, whether successful or unsuccessful, will be fed back to the authors. Any potential conflict of interest between the reviewer, the work, or the authors will be stated.

All scientific articles will be subject to peer review. The reviewer will consider the study design and methodology, the quality of the data and its interpretation, the usefulness of the conclusions and the quality of discussion of the study, including its limitations. In a review article, the breadth, depth and the conclusions of the review should be acceptable to the reviewer. The editors consider the discussion of opinion to be an important part of JICS – opinion pieces will state that they constitute opinion and will also be peer-reviewed. Letters will be subject to editorial approval but are not peer reviewed. Final decision on acceptance lies with the editor.

2. Article types
The Journal considers the following kinds of article for publication:

- Original submissions: should be between 2,000-3,000 words with up to 50 references. These should follow standard format: on the first page there should be a summary of approximately 150 words. Structured abstracts are not required. The text of the article should follow “IMRAD” (Introduction, Methods, Results, and Discussion) sequence.
- Surveys: will only be considered for publication if the response rate is 70% or more; in exceptional circumstances, lower response rates may be acceptable.
- Case Report, audits: up to 3,000 words, 30 references. Written patient consent for publication is mandatory.
- Invited editorials: up to 2000 words, 20 references.
- Special articles: with invited editorials, are usually commissioned by the editor. Spontaneous submissions are welcomed but should be discussed with one of the editors before submission; up to 3,000 words.
- Correspondence – should be limited to 500 words with no more than five references.
- Selected abstracts from ICS meetings: 500 words.
- Review articles, summaries of dissertations from diplomats of the Inter-Collegiate Board: up to 3,000 words, 50 references.

The suggested length is a guide only, but exceptions should generally be discussed with the editor before submission.

3. Authorship

Papers should only be submitted for consideration once the authorization of all contributing authors has been gathered. Those submitting papers should carefully check that all those whose work contributed to the paper are acknowledged as contributing authors.

The list of authors should include all those who can legitimately claim authorship. This is all those who:

- have made a substantial contribution to the concept and design, acquisition of data or analysis and interpretation of data
- drafted the article or revised it critically for important intellectual content
- approved the version to be published.

Authors should meet the conditions of all of the points above. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

When a large, multicentre group has conducted the work, the group should identify the individuals who accept direct responsibility for the manuscript. These individuals should fully meet the criteria for authorship.

Acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship, although all contributors who do not meet the criteria for authorship should be listed in the Acknowledgments section. Please refer to the ICMJE Authorship guidelines at http://www.icmje.org/icmje-recommendations.pdf.

4. How to submit your manuscript

Before submitting your manuscript, please ensure you carefully read and adhere to all the guidelines and instructions to authors provided below. Manuscripts not conforming to these guidelines may be returned.

JICS is hosted on SAGE track, a web based online submission and peer review system powered by ScholarOne™ Manuscripts. Please read the Manuscript Submission guidelines below, and then simply visit http://mc.manuscriptcentral.com/jics to login and submit your article online.

IMPORTANT: Please check whether you already have an account in the system before trying to create a new one. If you have reviewed or authored for the journal in the past year it is likely that you will have had an account created. For further guidance on submitting your manuscript online please visit ScholarOne Online Help.

All papers must be submitted via the online system. If you would like to discuss your paper prior to submission, please refer to the contact details below. Each manuscript should contain:

(i) title page with full title and subtitle (if any). The title page should contain the following:
- Address of the corresponding author in the top left hand corner with contact details including email
- The title of the paper
- All authors listed with their affiliated institutions (with first names included)
- If different, the institution where the work was performed should be listed.
- Any disclaimers or statement of conflict of interest
- Any financial support received should be acknowledged
- Five key words for indexing on the website which should be MeSH terms.
- Case reports must have signed written consent by the patient or assent from next of kin.

(ii) structured (where appropriate) abstract of up to 150 words

(iii) up to 10 key words

(iv) main text and word count suggested target is about 8000 words. Text to be clearly organized, with a clear hierarchy of headings and subheadings and quotations exceeding 40 words displayed, indented, in the text. Texts of a length greatly exceeding this will be considered
as interest warrants and space permits.

(v) end notes, if necessary, should be signalled by superscript numbers in the main text and listed at the end of the text before the references.

5. Journal contributor’s publishing agreement

Before publication SAGE requires the author as the rights holder to sign a Journal Contributor’s Publishing Agreement. SAGE’s Journal Contributor’s Publishing Agreement is an exclusive licence agreement which means that the author retains copyright in the work but grants SAGE the sole and exclusive right and licence to publish for the full legal term of copyright. Exceptions may exist where an assignment of copyright is required or preferred by a proprietor other than SAGE. In this case copyright in the work will be assigned from the author to the society. For more information please visit our Frequently Asked Questions on the SAGE Journal Author Gateway.

JICS and SAGE take issues of copyright infringement, plagiarism or other breaches of best practice in publication very seriously. We seek to protect the rights of our authors and we always investigate claims of plagiarism or misuse of published articles. Equally, we seek to protect the reputation of the journal against malpractice. Submitted articles may be checked with duplication-checking software. Where an article, for example, is found to have plagiarised other work or included third-party copyright material without permission or with insufficient acknowledgement, or where the authorship of the article is contested, we reserve the right to take action including, but not limited to: publishing an erratum or corrigendum (correction); retracting the article; taking up the matter with the head of department or dean of the author’s institution and/or relevant academic bodies or societies; or taking appropriate legal action.

5.1 SAGE Choice and Open Access

For more information on open access options and compliance at SAGE, including self author archiving deposits (green open access) visit SAGE Publishing Policies on our Journal Author Gateway.

6. Statements and conventions

6.1 Acknowledgements

Any acknowledgements should appear first at the end of your article prior to your Declaration of Conflicting Interests (if applicable), any notes and your References.

All contributors who do not meet the criteria for authorship should be listed in an ‘Acknowledgements’ section. Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a department chair who provided only general support. Authors should disclose whether they had any writing assistance and identify the entity that paid for this assistance.

6.2 Declaration of conflicting interests

Within your Journal Contributor’s Publishing Agreement you will be required to make a certification with respect to a declaration of conflicting interests. It is the policy of JICS to require a declaration of conflicting interests from all authors enabling a statement to be carried within the paginated pages of all published articles.

Please include any declaration at the end of your manuscript after any acknowledgements and prior to the references, under a heading ‘Declaration of Conflicting Interests’. If no declaration is made the following will be printed under this heading in your article: ‘None Declared’. Alternatively, you may wish to state that ‘The Author(s) declare(s) that there is no conflict of interest’.

When making a declaration the disclosure information must be specific and include any financial relationship that all authors of the article has with any sponsoring organization and the for-profit interests the organization represents, and with any for-profit product discussed or implied in the text of the article.

Any commercial or financial involvements that might represent an appearance of a conflict of interest need to be additionally disclosed in the covering letter accompanying your article to assist the Editor in evaluating whether sufficient disclosure has been made within the Declaration of Conflicting Interests provided in the article.

For more information please visit the SAGE Journal Author Gateway.

6.3 Funding acknowledgement

To comply with the guidance for Research Funders, Authors and Publishers issued by the Research Information Network (RIN), JICS additionally requires all Authors to acknowledge their funding in a consistent fashion under a separate heading. Please visit Funding Acknowledgements on the SAGE Journal Author Gateway to confirm the format of the acknowledgment text in the event of funding or state in your acknowledgments that: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

6.4 Other statements and conventions

6.4.1 Research ethics

All papers reporting animal and human studies must include whether written consent was obtained from the local Ethics Committee or Institutional Review Board. Please ensure that you have provided the full name and institution of the review committee and an Ethics Committee reference number.

Audit or service evaluation papers must have been assessed and approved by an external body such
as a research and development department and include a statement to that effect.

We accept manuscripts that report human and/or animal studies for publication only if it is made clear that investigations were carried out to a high ethical standard. Studies in humans which might be interpreted as experimental (e.g. controlled trials) should conform to the Declaration of Helsinki.

http://www.wma.net/en/30publications/10policies/b3/index.html and typescripts must include a statement that the research protocol was approved by the appropriate ethical committee. In line with the Declaration of Helsinki 1975, revised Hong Kong 1989, we encourage authors to register their clinical trials (at http://clinicaltrials.gov or other suitable databases identified by the ICMJE. http://www.icmje.org/about-icmje/fee/cclinical-trials-registration). If your trial has been registered, please state this on the Title Page. When reporting experiments on animals, indicate on the Title Page which guideline/law on the care and use of laboratory animals was followed.

6.4.2 Patient consent
Authors are required to ensure the following guidelines are followed, as recommended by the International Committee of Medical Journal Editors, Uniform Requirements for Manuscripts Submitted to Biomedical Journals (http://www.icmje.org/about-icmje/fee/cclinical-trials-registration). Patients have a right to privacy that should not be infringed without informed consent. Identifying information, including patients’ names, initials, or hospital numbers, should not be published in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) gives written informed consent for publication. Informed consent for this purpose requires that a patient who is identifiable be shown the manuscript to be published.

Identifying details should be omitted if they are not essential. Complete anonymity is difficult to achieve, however, and informed consent should be obtained if there is any doubt. For example, masking the eye region in photographs of patients is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic pedigrees, authors should provide assurance that alterations do not distort scientific meaning and editors should so note. When informed consent has been obtained it should be indicated in the submitted article.

In the UK, Caldicott Guardian approval must be granted before the publication of manuscripts containing patient data but not requiring Ethics Committee consent. Details of approvals granted should be provided in the main body of the text (usually in the Methods section). An algorithm that explains how to determine whether a project requires ethical approval can be accessed at the following link: http://www.nres.nhs.uk/news-and-publications/news/nres­sops­version­5/

The JICS patient consent form can be downloaded here.

6.4.3 Relationship with the Intensive Care Society
The responsibility of the editors is to provide a journal that will inform, educate and allow proliferation of ideas by engaging in debate within the intensive care community. This will be provided to the readership in an accurate and discerning fashion that will protect and enhance the integrity of the specialty. Currently JICS is funded by the Intensive Care Society. The editors have full authority over the contents of JICS, i.e. ‘editorial independence’, editorial decisions are made purely on the validity and utility of submitted work. There is at this time no financial involvement between the editors and JICS or the Intensive Care Society beyond provision of reasonable expenses.

6.4.4 Responding to Allegations of Misconduct
JICS has a responsibility to share reasonable concerns with the relevant authorities, such as the employer, University or Granting authority. It is not the role of JICS to conduct formal enquiries or to reach conclusions regarding potential misconduct. That is the role of the authorities mentioned above.

The areas that should be considered are:

- Falsification of data
- Plagiarism
- Improperities of authorship
- Misappropriation of ideas
- Violation of accepted research practices
- Failure to comply with regulatory requirements affecting research.

All allegations of misconduct will be referred to the editors who will review the circumstances. Initial fact-finding will include a request to all the involved parties to state their case, and explain the circumstances, in writing. In questions of research misconduct centering on methods or technical issues, the editors may confidentially consult experts who are blinded to the identity of the individuals, or if the allegation is against an editor, an outside expert. The editors will arrive at a conclusion as to whether there is enough evidence to lead a reasonable person to believe there is a possibility of misconduct. Their goal is not to determine if actual misconduct occurred, or the precise details.

When allegations concern authors, the peer review and publication process for the manuscript in question will be halted while the process above is carried out. The investigation described above will be completed even if the authors withdraw their paper, and the responses below will still be considered. In the case of allegations against reviewers the editors, they will be replaced in the review process while the matter is investigated. All such allegations should be kept confidential; the number of inquiries and those involved should keep to the minimum necessary to achieve this end. Whenever possible, references to the case in writing should be kept anonymous. In the event of misconduct the following options in order of severity are
available:

- A letter of explanation to the person against whom the complaint is made
- A letter of reprimand
- A formal letter, including a request to the supervising authority to investigate
- Publication of a notice of duplicate publication or plagiarism if warranted
- Formal withdrawal or retraction of the paper from the scientific literature. This will be published in JICS and communicated to the indexing authorities. It does not require the consent of the authors and will be reported to the institution where the author(s) work. This conforms to the International Committee of Journal Editors guidance. See http://www.icmje.org.

7. Permissions

Authors are responsible for obtaining permission from copyright holders for reproducing any illustrations, tables, figures or lengthy quotations previously published elsewhere. For further information including guidance on fair dealing for criticism and review, please visit our Frequently Asked Questions on the SAGE Journal Author Gateway.

8. Manuscript style

8.1 File types

Only electronic files conforming to the journal’s guidelines will be accepted. Preferred formats for the text and tables of your manuscript are Word DOC, RTF, XLS. LaTeX files are also accepted. Please also refer to additional guideline on submitting artwork below.

8.2 Journal Style

JICS conforms to the SAGE house style. Click here to review guidelines on SAGE UK House Style.

8.3 Reference Style

JICS adheres to the SAGE Vancouver reference style. Click here to review the guidelines on SAGE Vancouver to ensure your manuscript conforms to this style.

References should be relevant and useful. There is no merit in large numbers of unhelpful references. All material from other papers must be referenced. The list of references is placed at the conclusion of the paper, starting on a new sheet. It should be set out as follows:

- References must be numbered consecutively in the order in which they are first mentioned in the text. They should be superscripted in the text.
- Text references to ‘unpublished observations’ or ‘personal communications’ should not be included in the final list of references. Personal communications should be cited in the text as (Brown AB, personal communication, year). Authors are responsible for verifying that the wording of references to unpublished work is approved by the persons concerned. This should be provided in writing with the first submission of the manuscript.
- Journals
  List names and initials of up to four authors (if more than four, list three followed by et al.), title of paper, abbreviated title of journal as it appears in Medline (in italics) year of publication, volume number, page numbers, formatted as shown in the example: Smith PR, Jones A, Clarke EW et al. How to write an article. Br J Anaesth 2008;654:321-26.
- Electronic references
- Monographs
- Chapter in a book

8.4 Manuscript Preparation

The text should be double-spaced throughout and with a minimum of 3cm for left and right hand margins and 5cm at head and foot. Text should be standard 10 or 12 point.

8.4.1 Your Title, Keywords and Abstracts: Helping readers find your article online

The title, keywords and abstract are key to ensuring readers find your article online through online search.
engines such as Google. Please refer to the information and guidance on how best to title your article, write your abstract and select your keywords by visiting SAGE’s Journal Author Gateway Guidelines on How to Help Readers Find Your Article Online.

8.4.2 Corresponding Author Contact details
Provide full contact details for the corresponding author including email, mailing address and telephone numbers. Academic affiliations are required for all co-authors. These details should be presented separately to the main text of the article to facilitate anonymous peer review.

8.4.3 Guidelines for submitting artwork, figures and other graphics
For guidance on the preparation of illustrations, pictures and graphs in electronic format, please visit SAGE’s Manuscript Submission Guidelines.

Figures supplied in colour will appear in colour online regardless of whether or not these illustrations are reproduced in colour in the printed version. For specifically requested colour reproduction in print, you will receive information regarding the costs from SAGE after receipt of your accepted article.

8.4.4 Guidelines for submitting supplemental files
This journal is able to host approved supplemental materials online, alongside the full-text of articles. Supplemental files will be subjected to peer-review alongside the article. For more information please refer to SAGE’s Guidelines for Authors on Supplemental Files.

8.4.5 English Language Editing services
Non-English speaking authors who would like to refine their use of language in their manuscripts might consider using a professional editing service. Visit English Language Editing Services on our Journal Author Gateway for further information.

9. After acceptance
9.1 Proofs
We will email a PDF of the proofs to the corresponding author.

9.2 E-Prints
SAGE provides authors with access to a PDF of their final article. For further information please visit Offprints and Reprints on our Journal Author Gateway.

9.3 SAGE Production
At SAGE we place an extremely strong emphasis on the highest production standards possible. We attach high importance to our quality service levels in copy-editing, typesetting, printing, and online publication (http://online.sagepub.com). We also seek to uphold excellent author relations throughout the publication process.

We value your feedback to ensure we continue to improve our author service levels. On publication all corresponding authors will receive a brief survey questionnaire on your experience of publishing in JICS with SAGE.

9.4 OnlineFirst Publication
A large number of journals benefit from OnlineFirst, a feature offered through SAGE’s electronic journal platform, SAGE Journals Online. It allows final revision articles (completed articles in queue for assignment to an upcoming issue) to be hosted online prior to their inclusion in a final print and online journal issue which significantly reduces the lead time between submission and publication. For more information please visit our OnlineFirst Fact Sheet.

10. Further information
Any correspondence, queries or additional requests for information on the Manuscript Submission process should be sent to the

Editorial Office as follows:
The Journal of the Intensive Care Society
The Intensive Care Society
Churchill House,
35 Red Lion Square,
London, WC1R 4SG

jenny@ics.ac.uk
Appendix 2: CASP checklist for qualitative research – completed example.

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10 questions to help you make sense of qualitative research

How to use this appraisal tool

Three broad issues need to be considered when appraising a qualitative study:

Are the results of the study valid? (Section A)
What are the results? (Section B)
Will the results help locally? (Section C)

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA ‘Users’ guides to the medical literature 1994 (adapted from Guyatt GH, Sackett DL, and Cook DJ), and piloted with health care practitioners.

For each new checklist a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.:


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Screening Questions

1. Was there a clear statement of the aims of the research?  
   **Yes**  **Can’t tell**  **No**
   
   HINT: Consider
   - What was the goal of the research?
   - Why it was thought important?
   - Its relevance

2. Is a qualitative methodology appropriate?  
   **Yes**  **Can’t tell**  **No**
   
   HINT: Consider
   - If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
   - Is qualitative research the right methodology for addressing the research goal?

Is it worth continuing?

Detailed questions

3. Was the research design appropriate to address the aims of the research?  
   **Yes**  **Can’t tell**  **No**
   
   HINT: Consider
   - If the researcher has justified the research design (E.g. have they discussed how they decided which method to use)?
4. Was the recruitment strategy appropriate to the aims of the research?  

HINT: Consider
- If the researcher has explained how the participants were selected
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g., why some people chose not to take part)

5. Was the data collected in a way that addressed the research issue?  

HINT: Consider
- If the setting for data collection was justified
- If it is clear how data were collected (e.g., focus group, semi-structured interview, etc.)
- If the researcher has justified the methods chosen
- If the researcher has made the methods explicit (e.g., for interview method, is there an indication of how interviews were conducted, or did they use a topic guide?)
- If methods were modified during the study. If so, how did the researcher explain how and why?
- If the form of data is clear (e.g., tape recordings, video material, notes, etc.)
- If the researcher has discussed saturation of data

6. Has the relationship between researcher and participants been adequately considered?  

HINT: Consider
- If the researcher critically examined their own role, potential bias and influence during (a) Formulation of the research questions (b) Data collection, including sample recruitment and choice of location
- How the researcher responded to events during the study and whether they considered the implications of any changes in the research design

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7. Have ethical issues been taken into consideration?  

**HINT:** Consider
- If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained.
- If the researcher has discussed issues raised by the study (e.g., issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study).
- If approval has been sought from the ethics committee.

8. Was the data analysis sufficiently rigorous?  

**HINT:** Consider
- If there is an in-depth description of the analysis process.
- If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process.
- If sufficient data are presented to support the findings.
- To what extent contradictory data are taken into account.
- Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation.
9. Is there a clear statement of findings?

HINT: Consider

- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researchers' arguments
- If the researcher has discussed the credibility of their findings (e.g., triangulation, respondent validation, more than one analyst)
- If the findings are discussed in relation to the original research question

10. How valuable is the research? Very valuable – all points addressed

HINT: Consider

- If the researcher discusses the contribution the study makes to existing knowledge or understanding e.g. do they consider the findings in relation to current practice or policy?, or relevant research-based literature?
- If they identify new areas where research is necessary
- If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

Study appraised: Laurent et al (2014)
SCORE: 10/10
**Appendix 3: Inclusion and exclusion criteria for systematic review papers**

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative Methodology (any design)</td>
<td>Quantitative Methodology</td>
</tr>
<tr>
<td>English Language</td>
<td>Non-English Language</td>
</tr>
<tr>
<td>Peer-reviewed article</td>
<td>Not published in peer-reviewed journal</td>
</tr>
<tr>
<td>Adult General Medical CCU / ICU</td>
<td>Pediatric / Neonatal CCU / ICU / wards</td>
</tr>
<tr>
<td>Relevance: Looking at the <strong>emotional impact and experience</strong> of nurses and physicians in CCU / ICU in relation to <strong>resilience, coping, burnout, PTSD, distress, Compassion Fatigue</strong> etc.</td>
<td>Specialist Adult CCU / ICU</td>
</tr>
<tr>
<td>Clarity within concept descriptions</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Cardiff University Sponsorship confirmation letter and indemnity insurance
If your study is adopted onto Health & Care Research Wales Clinical Research Portfolio you are required to upload recruitment data onto the portfolio database.

Contracts

No research-specific tasks delegated to NHS Host Organisation (staff acting as participants) – no contract required.

May I take this opportunity to remind you that, as Chief Investigator, you are required to:

- ensure you are familiar with your responsibilities under the Research Governance Framework for Health and Social Care;
- undertake the study in accordance with Cardiff University’s Research Governance Framework and the principles of Good Clinical Practice;
- ensure the Research complies with the Data Protection Act 1998;
- inform Research, Innovation & Enterprise Services of any amendments to the protocol or study design, including changes to start and end dates;
- co-operate with any audit inspection of the project files or any requests from Research, Innovation & Enterprise Services for further information.

You should quote the following unique reference number in any correspondence relating to sponsorship for the above project: SPON 1524-16

This reference number should be quoted on all documentation associated with this project.

Yours sincerely

Dr K J Pittard Davies
Head of Research Governance and Contracts
Direct line: +44 (0) 29208 79274
Email: rsgov@cardiff.ac.uk

Cc Josephine Allen
TO WHOM IT MAY CONCERN

18th July 2016

Dear Sir/Madam

CARDIFF UNIVERSITY
AND ALL ITS SUBSIDIARY COMPANIES

We confirm that the above institution is a Member of U.M. Association Limited, and that the following covers are currently in place:

EMPLOYERS’ LIABILITY
Certificate No. Y016459QBE0116A/165
Period of Cover 1st August 2016 to 31st July 2017
Limit of Indemnity £50,000,000 any one event unlimited in the aggregate.
Includes Indemnity to Principals
Cover provided by QBE Insurance (Europe) Limited and Excess Insurers.

PUBLIC AND PRODUCTS LIABILITY
Certificate of Entry No. UM165/13
Period of Cover 1st August 2016 to 31st July 2017
Includes Indemnity to Principals
Limit Of Indemnity £50,000,000 any one event and in the aggregate in respect of Products Liability and unlimited in the aggregate in respect of Public Liability.
Cover provided by U.M. Association Limited and Excess Cover Providers led by QBE Insurance (Europe) Limited

If you have any queries in respect of the above details, please do not hesitate to contact us.

Yours faithfully

Susan Wilkinson
For U.M. Association Limited
TO WHOM IT MAY CONCERN

20th July 2015

Dear Sir/Madam

CARDIFF UNIVERSITY
AND ALL ITS SUBSIDIARY COMPANIES

We confirm that the above Institution is a Member of U.M. Association Limited, and that the following covers are currently in place:—

EMPLOYERS’ LIABILITY
Certificate No. Y016458QBE0115/165
Period of Cover 1 August 2015 to 31 July 2016
Limit of Indemnity £50,000,000 any one event unlimited in the aggregate.
Includes Indemnity to Principals
Cover provided by QBE Insurance (Europe) Limited and Excess Insurers.

PUBLIC AND PRODUCTS LIABILITY
Certificate of Entry No. UM165/13
Period of Cover 1 August 2015 to 31 July 2016
Includes Indemnity to Principals
Limit Of Indemnity £50,000,000 any one event and in the aggregate in respect of Products Liability and unlimited in the aggregate in respect of Public Liability.
Cover provided by U.M. Association Limited and Excess Cover Providers led by QBE Insurance (Europe) Limited

If you have any queries in respect of the above details, please do not hesitate to contact us.

Yours faithfully

Susan Wilkinson
For U.M. Association Limited
Appendix 5: NHS Research and Development ethical approval letters

Dear Dr Mason,

**Title:** Resilience in Critical Care Consultants

**Chief Investigator:** Miss Josephine Allen

**Principal Investigator:** Dr Nicholas Mason

**R&D Reference Number:** RD/1468/16

**IRAS Number:** 207368

**Portfolio Status:** Review in Progress

**Commercial Status:** Non-Commercial

The Aneurin Bevan University Health Board Research Risk Review Committee at their meeting on the 3rd August 2016 decided that overall the project does not appear to pose any risk to the University Health Board and can be approved.

If you or any member of your team require a Research Honorary Contract or Letter of Access please contact the R&D Department at the above email address.

May I take this opportunity to wish you success with your study and remind you that the study team are required to do the following:

a) Inform the University Health Board R&D Office if any external funding is awarded for this study in the future.

b) Inform the R&D Office of any substantial amendments/changes to your protocol.

c) Maintain a record of the number of research participants recruited into the study.

d) Complete any questionnaires sent to you by the University Health Board’s R&D Office regarding this project.

Advancing Knowledge, Enhancing Care
e) Comply fully with the Research Governance Framework, and co-operate with any audit inspection of the project files.

f) Undertake the project in accordance with ICH-GCP and the University Health Board’s Guidelines on Good Research Practice.

g) Adhere to the protocol as approved by the Local Research Ethics Committee.

h) Ensure that your research complies with the Data Protection Act 1998.

i) Report any Serious Adverse Events to the R&D Office.

j) Please note that approval lapses if the project does not commence within 12 months of approval.

If your study is adopted onto the Health and Care Research Wales Clinical Research Portfolio (CRP), it will be a condition of this NHS research permission, that you will be required to regularly upload recruitment data onto the portfolio database.

To apply for adoption onto the Health and Care Research Wales CRP, please go to http://www.healthandcareresearch.gov.wales/get-your-study-on-the-clinical-research-portfolio/

To upload recruitment data, please follow this link: http://www.healthandcareresearch.gov.wales/uploading-recruitment-data/

Uploading recruitment data will enable Health and Care Research Wales to monitor research activity within NHS organizations, leading to NHS R&D allocations which are activity driven. The uploading of recruitment data will be monitored by your colleagues in the R&D office. If you need any support in uploading this data, please contact the ABUHB R&D office.

Yours sincerely

*signature*

Professor Sue Bale OBE
Research and Development Director
Research Risk Review Committee Chairman

Advancing Knowledge, Enhancing Care
Dyddiad/Date: 12<sup>th</sup> October 2016

Miss Josephine Allen
Trainee Clinical Psychologist
South Wales Doctoral Programme in Clinical Psychology
School of Psychology, Cardiff University, 11th Floor, Tower Building, Park Place, Cardiff CF10 3AT

Dear Miss Allen,

Re: Resilience in Critical Care Consultants
IRAS Ref: 207368
Sponsor: Cardiff University

Thank you for submitting the above named research proposal to ABMU Health Board for NHS R&D permission. The attached listed documents were reviewed.

Health Board R&D Governance checks have been completed and passed. Please accept this letter as confirmation of local NHS R&D Health Board permission.

As part of Research Governance, you are required to:

1. Adhere to the protocol approved and inform the R&D office and the relevant Research Ethics Committee of any changes to the study, including the end date, for review/approval and record update.
2. For Health Board Sponsored studies, notify the R&D office of serious adverse events immediately upon knowledge, in accordance with local Standard Operating Procedure on Pharmacovigilance and as outlined in your Study Initiation meeting.
3. For Externally Sponsored studies, the Health Board should only be notified of SAEs or Suspected Unexpected Serious Adverse Reaction (SUSAR) arising in local ABMU Patients.
4. Complete any interim and final reports requested by the R&D office. If sponsored by ABMU Health Board, you will be asked to complete a 6 monthly progress report for submission to the Joint Scientific Review Committee along with your final report at study completion.
5. Ensure that your research complies with any relevant regulatory requirements and legislation relating to: Clinical Trials, Data Protection Act 1998, Health & Safety, Caldicott Guidelines, the use of Human Tissue for research purposes, Mental Capacity and ICH Good Clinical Practice (GCP). The R&D team can advise you on applicable regulatory and statutory requirements relevant to your study.
6. Comply with Data Protection requirements, notably no personal or patient identifiable data should leave the Health Board unless explicit consent from the individual or patient has been taken and documented. Unless consent is present, all study related documents must be either fully or linked anonymised. *Identifiable patient data includes name, address, full...*
postcode, date of birth, NHS number and local patient identifiable codes as well as photographs, videos, audio tapes or other images of patients. Personal identifiable information includes the member of staff’s name, address, full post code, date of birth, NI number and staff number as well as photographs etc’ – ABMU Data Protection & Confidentiality Policy, Version 2.1 September 2013.

7. Ensure that all training courses requested by the Sponsor are completed by all relevant members of the research team before any research activity is carried out. All research staff undertaking clinical trials of an investigational medicinal product (CTIMPs) must be GCP trained, and should continue to update their GCP training every 2 years. Copies of GCP certificates should be filed in the Trial Site File, with a copy forwarded to the R&D Department.

8. Ensure the research is undertaken in compliance with all Health Board R&D Standard Operating Procedures (SOPs). The latest versions of all SOPs can be obtained by contacting the R&D Department or from the R&D Intranet pages.

9. If the study is sponsored by ABMU Health Board you must notify the R&D Office of your intention to open the study in other sites.

10. For ABMU Health Board Sponsored studies, sign a Conditions of Sponsorship Agreement & attend a Study Initiation meeting as organised by the R&D Department.

Clinical Research Portfolio Studies
If your study has been adopted onto the Clinical Research Portfolio (CRP), it will be a condition of our permission that the Chief Investigator site uploads local recruitment data onto the portfolio database.

For more information on the process of uploading recruitment data please look at the following link: http://www.healthandcareresearch.gov.wales/uploading-recruitment-data/

Uploading of recruitment data will enable Health and Care Research Wales to monitor research activity within Health Boards, resulting in NHS R&D allocations to be driven by activity.

For more information and advice on the Health and Care Research Wales Portfolio please email: portfolio@wales.nhs.uk

Amendments to the Study
Any changes made to the study after the issue of this letter will be treated as an amendment. Amendments can be ‘substantial’ or ‘non-substantial’. It is the duty of the Sponsor to classify the amendment and notify all relevant regulatory bodies accordingly, this duty may be delegated to the Chief Investigator or other authorised individual.

For a substantial amendment, the Sponsor or delegated individual will be required to submit a Notice of Substantial Amendment form to the REC, the lead permission co-ordinating function for the study and the MHRA (if applicable). For all ABMU sponsored studies substantial amendments must first be submitted to the Joint Study Review Committee (JSRC) for approval prior to submitting to REC and Health and Care Research Wales Permissions [Research-permissions@wales.nhs.uk].

For non-substantial amendments, the Sponsor or delegated individual are required to submit the amendment details to the lead permission co-ordinating function for the study. They will then pass the amendment details onto all relevant nations, for Wales this would be Health and Care Research Wales who will notify ABMU R&D Department for review.

Details of how to classify your amendment as substantial or non-substantial are available from Health Research Authority - http://www.hra.nhs.uk/research-community/during-your-research-project/amendments/

Indemnity Arrangements

Bwrdd Iechyd ABM yw enw gweithredu Bwrdd Iechyd Lleol Prifysgol Abertawe Bro Morgannwg
ABM University Health Board is the operational name of Abertawe Bro Morgannwg University Local Health Board
Pencadlys ABM / ABM Headquarters, 1 Talbot Gateway, Port Talbot, SA42 7SR. Ffon / Tel: (01639) 683344
www.abm.wales.nhs.uk

Reda Ref: 207368
The Sponsor indemnifies and holds harmless ABM University Health Board, its employees and agents for any harm caused by negligence on behalf of the Sponsor, including any harm caused to participants by the administration of the investigational product. However, please note that the Sponsor will not indemnify ABM University Health Board for any harm caused by negligence on behalf of the research team or other individual or agent. Researchers employed by ABM University Health Board, including those holding Honorary Contract status are indemnified against actions for negligent harm via standard arrangements with Welsh Risk Pool (WRP).

Please discuss any planned use of in-house work instructions/sops with the Sponsor company during initiation to ensure localised documents correctly summarise the protocol requirements and this is agreed to, in writing, by the Sponsor Company.

ABM University Health Board reserves the right to suspend approval of any research study where deviation from appropriate RG & GCP standards is uncovered.

May I take this opportunity to wish you well in undertaking the research. We will write to you in the future to request updates on the progress of the research and look forward to receiving outcomes of the study.

Yours sincerely,

Professor J W Stephens
Deputy Assistant Medical Director (R&D)
ABMU Health Board

c.c. Dr Ausama H Mohammed, Consultant Anaesthesia & Intensive Care Medicine, ABMU (Named Local Collaborator for ABMU HB)
Re: Resilience in Critical Care Consultants  
IRAS Ref: 207368  
Sponsor: Cardiff University

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<td>ABMU SSI checklist</td>
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<td>ABMU UHB - Critical Care Unit, Morriston Hospital</td>
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**Re: Resilience in Critical Care Consultants**
IRAS Ref: 207368
Sponsor: Cardiff University

### R&D Application Documents Received

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<td>Written final confirmation from the organisation(s) acting as sponsor</td>
<td>Cardiff University</td>
<td>06 Jun 2016</td>
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<td>Summary CV for Chief Investigator (CI)</td>
<td>J R Allen</td>
<td></td>
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<td>Summary CV for Principal Investigator (PI)</td>
<td>J Highfield</td>
<td></td>
</tr>
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<td>Summary CV for Academic Supervisor</td>
<td>V Samuel</td>
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<td>GCP Certificates</td>
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<td>GCP Certificates</td>
<td>V Samuel</td>
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<td>Interview schedules or topic guides for participants</td>
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<td>Research participant consent form</td>
<td>v1.0, 26 May 2016</td>
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<td>Research participant information sheet (PIS)</td>
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<td>Research protocol</td>
<td>v1 24 Jun 2016</td>
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<tr>
<td>R&amp;D Application checklist</td>
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<td>R&amp;D Form (Parts A-D)</td>
<td>(signed/authorised pdf or hard copy)</td>
<td>24 Jun 2016</td>
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</table>
Dear Miss Allen

Letter of access for research – NHS to NHS

Re: Resilience in Critical Care Consultants: Elucidating Intensivists’ Experience

REF: 207368

This letter should be presented to each participating organisation before you commence your research at that site, Abertawe Bro Morgannwg University Health Board.

In accepting this letter, each participating organisation confirms your right of access to conduct research through their organisation for the purpose and on the terms and conditions set out below. This right of access commences on 1st February 2016 and ends on 31st October 2017 (Study End Date on ABMU HB SSI Form) unless terminated earlier in accordance with the clauses below.

As an existing NHS employee you do not require an additional honorary research contract with the participating organisation(s). The organisation(s) is/are satisfied that the research activities that you will undertake in the organisation(s) are commensurate with the activities you undertake for your employer. Your employer is fully responsible for ensuring such checks as are necessary have been carried out. Your employer has confirmed in writing to this organisation that the necessary pre-engagement checks are in place in accordance with the role you plan to carry out in the organisation(s). Evidence of checks should be available on request to Abertawe Bro Morgannwg University Health Board.

Bwrdd Iechyd ABM yw enw gweithredu Bwrdd Iechyd Lleol Prifysgol Abertawe Bro Morgannwg
ABM University Health Board is the operational name of Abertawe Bro Morgannwg University Local Health Board
Pencadlys ABM / ABM Headquarters, 1 Talbot Gateway, Port Talbot, SA12 7RR. Ffow / Tel: (01639) 683344
www.abm.wales.nhs.uk
You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this organisation. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

You are considered to be a legal visitor to Abertawe Bro Morgannwg University Health Board premises. You are not entitled to any form of payment or access to other benefits provided by Abertawe Bro Morgannwg University Health Board or this organisation to employees and this letter does not give rise to any other relationship between you and Abertawe Bro Morgannwg University Health Board or this organisation, in particular that of an employee.

While undertaking research through Abertawe Bro Morgannwg University Health Board, you will remain accountable to your employer Cardiff University, Cardiff & Vale NHS Trust but you are required to follow the reasonable instructions of Dr Ausama H. Mohammed, Consultant Anaesthesia & Intensive Care Medicine, Morriston Hospital, ABMU HB in this organisation or those given on his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by [Insert organisation] or this organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with Abertawe Bro Morgannwg University Health Board policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with Abertawe Bro Morgannwg University Health Board in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on Abertawe Bro Morgannwg University Health Board premises. Although you are not a contract holder, you must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of a contract holder and you must act appropriately, responsibly and professionally at all times.

If you have a physical or mental health condition or disability which may affect your research role and which might require special adjustments to your role, if you have not already done so, you must notify your employer and each participating [Insert organisation] prior to commencing your research role at each site.

You are required to ensure that all information regarding patients or staff remains secure and strictly confidential at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

Bwrdi ichyd AbM yw enw gweithredu Bwrdi Ichyd lleol Prifysgol Abertawe Bro Morgannwg
AbM University Health Board is the operational name of Abertawe Bro Morgannwg University Local Health Board
Pyncadlys AbM / AbM Headquarters, 1 Talbot Gateway, Pont Talbot, SA12 7BR. Ffôn / Tel: (01639) 663344
www.abm.wales.nhs.uk

Version 2.3, August 2013
Research in the NHS: HR Good Practice Resource Pack
The organisation(s) will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that the organisation(s) accept no responsibility for damage to or loss of personal property.

This letter may be revoked and your right to attend the organisation(s) terminated at any time either by giving seven days’ written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of the organisation(s) or if you are convicted of any criminal offence. You must not undertake regulated activity if you are barred from such work. If you are barred from working with adults or children this letter of access is immediately terminated. Your employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity immediately.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

If your circumstances change in relation to your health, criminal record, professional registration or suitability to work with adults or children, or any other aspect that may impact on your suitability to conduct research, or your role in research changes, you must inform the organisation that employs you through its normal procedures. You must also inform the nominated manager in each participating organisation.

Yours sincerely

[Signature]

Samantha Rees
R&D Administrator
ABMU Health Board

Bwrdd Iechyd ABM yw enw gweithredu Bwrdd Iechyd Lleol Frifysgol Abertawe Bro Morgannwg
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www.abm.wales.nhs.uk

Version 2.3, August 2013
Research in the NHS: HR Good Practice Resource Pack  Page 3 of 3
08 August 2016

Dr Julie Highfield
Consultant Clinical Psychologist
Adult Critical Care
A3 Corridor
University Hospital of Wales
Heath Park
Cardiff
CF14 4XW

Dear Dr Highfield

Cardiff and Vale UHB Ref: 16/JUL/6564
IRAS Project ID: 207368
Title: Resilience in Critical Care Consultants: Elucidating Intensivists’ Experience

The above project was forwarded to Cardiff and Vale University Health Board R&D Office by the Health and Care Research Wales Permissions Service. A Governance Review has now been completed on the project.

Documents approved for use in this study are:

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Cardiff University
South Wales Doctoral Programme in Clinical Psychology

167
I am pleased to inform you that the UHB has no objection to your proposal.

You have informed us that Cardiff University is willing to act as Sponsor under the Research Governance Framework for Health and Social Care. Please accept this letter as confirmation of permission for the project to begin within this UHB.

I note that Health and Care Research Wales has determined that this study is ineligible for adoption onto the Clinical Research Portfolio and your Directorate R&D Lead has determined that it does not meet the criteria for Pathway-to-Portfolio. The Directorate R&D Lead has confirmed that she is satisfied that arrangements are in place for meeting any costs from outside of the R&D Activity Based Funding allocation. Your Directorate R&D Lead has raised no objections to providing Directorate support for this study.

May I take this opportunity to wish you success with the project and remind you that as Chief / Principal Investigator you are required to:

- Inform the R&D Office of the date which this study opens to recruitment. If this project has not opened within 12 months of the date of this letter, Failure to do so may invalidate R&D approval,
- Inform the Health and Care Research Wales Permissions Service and the UHB R&D Office if any external or additional funding is awarded for this project in the future,
- Ensure that all study amendments are submitted to the Health and Care Research Wales Permissions Service,
- Ensure the Health and Care Research Wales Permissions Service is notified of the study’s closure,
- Ensure that the study is conducted in accordance with all relevant policies, procedures and legislation,
- Provide information on the project to the UHB R&D Office as requested from time to time, to include participant recruitment figures.

Yours sincerely,

[Signature]

Professor Christopher Fegan
R&D Director / Chair of the Cardiff and Vale Research Review Service (CaRRS)

CC

R&D Lead: Mrs Nicki Palmer
Student: Miss Josephine Allen, Cardiff University
Sponsor Contact: Chris Shaw, Research Innovation Enterprise Services,
Cardiff University
Academic Supervisor: Dr Victoria Samuel, School of Psychology, Cardiff University
Finance: Anthony Williams, University Hospital of Wales
Clinical Board Assistant Head of Finance: Chris Bimson, Specialist Service Group, University Hospital of Wales
Dr Bethan Gibson  
Consultant Anaesthetist  
Royal Glamorgan Hospital  
Llantrisant  
CF72 8XR  

Dear Dr Gibson

Re: CT/679/207368/16 Resilience in Critical Care Consultants

Thank you for clarifying the points raised at the Risk Review Group (RRRG) held on 18th August 2016. I have pleasure in confirming that this project now has full approval to commence in Cwm Taf University Health Board. However commencement of the project should be upon the receipt of ethical approval if required. If the project is a multi site study it is advised that you also obtain approval from all other Health Boards before commencing the project at individual sites.

The Group reserve the right to information on the progress of the project at any time and should receive a progress report six monthly and a written report on completion.

Random audits will be carried out to ensure that projects comply with the clinical guidelines of research. Any serious adverse incidents relating to the project should be reported to the R&D office and a Clinical Incident Form filled in.

If your project includes participants or resources from other Health Boards it is your responsibility to contact the relevant R&D Office(s) in order to gain R&D approval to commence. Without individual R&D approval from all Health Boards involved in the study Welsh Risk Pool indemnity will not be afforded to the researcher.

On completion of the project it is important that you inform the Health Board Research & Development office.

It is a requirement of approval that a synopsis of your project and its findings (if not commercially too sensitive) be submitted to the R&D department upon completion. This synopsis can then be placed on the R&D departments’ web page to provide a useful R&D resource for other research active professionals across the Health Board.

It is also a requirement that an abstract is submitted for review and possible inclusion in the Health Boards annual R&D conference. This facilitates the distribution of all researchers’ findings and any resultant changes in clinical practice.

Return Address: Research & Development Department, Royal Glamorgan Hospital, Llantrisant, Rhondda Cynon Taff, CF72 8XR

Chair/Caseirydd: Dr C D V Jones, CBE  
Chief Executive/Prif Weithredydd: Mrs Allison Williams

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Cardiff University  
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170
If your study is adopted onto the Health & Care Research Wales Clinical Research Portfolio (CRP), it will be a condition of this NHS research permission, that you will be required to regularly upload recruitment data onto the portfolio database.

To apply for adoption onto the Health & Care Research Wales CRP, please go to: https://www.ukctg.nihr.ac.uk/Once adopted, Health & Care Research Wales CRP studies may be eligible for additional support through the Health & Care Research Wales Workforce. Further information can be found from your NHS R&D office colleagues.

Uploading recruitment data will enable Health & Care Research Wales to monitor research activity within NHS organizations, leading to NHS R&D allocations which are activity driven. Uploading of recruitment data will be monitored by your colleagues in the R&D office. If you need any support in uploading this data, please contact, Research & Development department.

I would like to take this opportunity to wish you well with your research and look forward to the presentation of your findings.

If you require any further assistance please contact the Research & Development Department, Royal Glamorgan Hospital, ext 3421.

Yours sincerely,

[Signature]

Professor John Geen MSc, PhD, FRCPath
Assistant Director for Research & Development

Enc. Notification of Start Form, Interim Progress Report Form, Notification of End Form

c.c. Dr Vikram Sinha, Clinical Director for Anaesthetics, Critical Care & Theatres, Royal Glamorgan Hospital
Miss Josephine Allen, Trainee Clinical Psychologist, Doctoral Programme in Clinical Psychology, School of Psychology, Cardiff University, 11th Floor, Tower Building Park Place, Cardiff, CF10 3AT
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<td>R&amp;D Form (Parts A-D) (signed/authorised pdf or hard copy)</td>
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<td>24 Jun 2016</td>
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</tbody>
</table>
Miss Josephine Allen
Trainee Clinical Psychologist
Doctoral Programme in Clinical Psychology
Cardiff University
11th Floor Tower Building
Cardiff
CF10 3AT

Dear Miss Allen

Letter of access for research

As an existing NHS employee you do not require an additional honorary research contract with this NHS organisation. We are satisfied that the research activities that you will undertake in this NHS organisation are commensurate with the activities you undertake for your employer. Your employer is fully responsible for ensuring such checks as are necessary have been carried out. Your employer has confirmed in writing to this NHS organisation that the necessary pre-engagement check is in place in accordance with the role you plan to carry out in this organisation. This letter confirms your right of access to conduct research through Cwm Taf University Health Board for the purpose and on the terms and conditions set out below. This right of access commences on 31/08/18 and ends on 31/10/17 unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this NHS organisation. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

You are considered to be a legal visitor to Cwm Taf University Health Board premises. You are not entitled to any form of payment or access to other benefits provided by this organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through Cwm Taf University Health Board, you will remain accountable to your employer Cardiff and Vale UHB but you are required to follow the reasonable instructions of your nominated manager Dr Vikram Sinha, Clinical Director for Anaesthetics, Critical Care and Theatres in this NHS organisation or those given on her/his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

Return Address: Research & Development Department, Royal Glamorgan Hospital, Llantrisant, Rhondda Cynon Taff, CF72 8XR

Chair/Cadeirydd: Dr C D V Jones, CBE
Chief Executive/Phelthyrwydd: Mrs Allison Williams

Cwm Taf University Health Board is the operational name of Cwm Taf University Local Health Board/Byrdd Iechyd Prifysgol Cwm Taf yw mwyn weithredol Byrdd Iechyd Lleol Cwm Taf

Cardiff University
South Wales Doctoral Programme in Clinical Psychology

173
You must act in accordance with Cwm Taf University Health Board policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with Cwm Taf University Health Board in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on Cwm Taf University Health Board premises. Although you are not a contract holder, you must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of a contract holder and you must act appropriately, responsibly and professionally at all times.

You are required to ensure that all information regarding patients or staff remains secure and strictly confidential at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice (http://www.dh.gov.uk/assetRoot/04/06/62/54/0466254.pdf) and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

Cwm Taf University Health Board will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

You should ensure that, where you are issued with an identity or security card, a beep number, email or library account, keys or protective clothing; these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS organisation accepts no responsibility for damage to or loss of personal property.

We may terminate your right to attend at any time either by giving seven days’ written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS organisation or if you are convicted of any criminal offence. Where applicable, your substantive employer will initiate your Independent Safeguarding Authority (ISA) registration in-line with the phasing strategy adopted within the NHS and the applicable legislation. Once you are ISA-registered, your employer will continue to monitor your ISA registration status via the on-line ISA service. Should you cease to be ISA-registered, this letter of access is immediately terminated. Your substantive employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

If your circumstances change in relation to your health, criminal record, professional registration or ISA registration, or any other aspect that may impact on your suitability to conduct research, or your role in research changes, you must inform the NHS organisation that employs you through its normal procedures. You must also inform your nominated manager in the NHS organisation.

Yours sincerely

Rhian Beynon
R&D Manager
Appendix 6: Research Protocol

Title of Project:

Background
Burnout describes a pattern of psychological distress and emotional exhaustion which occurs within professionals as a result of chronic occupational and interpersonal stressors (Maslach et al., 1996; Maslach & Schaufeli, 1993). Burnout is recognised to comprise of negative emotions, attitudes and behaviours towards work (Maslach et al., 2001). Furthermore, burnout is associated with physical illness and emotional or psychological distress impacting upon absenteeism and high turnover (Maslach et al., 2001) including intensivists’ retraining to a different specialism (Jones et al., 2011). A recent report by the Point of Care Foundation identified that sickness rates for NHS staff are amongst the highest across the UK, with the highest proportion of sickness being related to stress, burnout and mental health difficulties (POCF, 2016).

The implications to care of Burnout across NHS staff are significant with research identifying burnout to impact negatively upon performance and the quality of medical care provision (Shirom et al., 2006; Weisman & Teitelbaum, 1985) in addition to predicting lower patient satisfaction (German et al., 2002; McCue, 1982). This identified impact of burnout within research is reflected within the NHS workforce, recognised within the recent POCF report which raised concern relating to the negative effects of burnout upon decision making, patient safety and patient experience (POCF, 2016). Empirical studies have indicated that improved working satisfaction (Michie, 2004) and compassion to self and colleagues improves patient care and reduces mortality rates (POCF, 2016).

The past decade has seen recognition within research of the presence of burnout across the medical profession (Shanafelt et al., 2012). It is of note however that a comparison study of Paediatric Intensivists with General Paediatric Consultants identified burnout as more prevalent in Paediatric Intensivists (Garcia et al, 2014).

Critical Care Units are highly stressful environments in which medical staff are required to provide intensive medical interventions to patients at a critical level of medical need. The working life of an intensivist involves delicate yet highly emotive and high stakes decisions. Decisions such as those relating to end-of-life have been associated with decreased job...
satisfaction, emotional and psychological burnout (Flannery et al., 2015). Furthermore, a recent British survey identified that 43% of intensivists reported health problems related to work, in particular a link with the intensity of on-call duty being highlighted (Jones et al., 2014). Research consistently reports a high presence of burnout within Intensive Care or Critical Care medical staff teams (Guntupalli et al., 2014; Merlani et al., 2011; Curtis & Puntillo, 2007; Teixeira et al., 2013) In studies conducted in the context of the French equivalent Intensive Care Units, 33% of medical staff (Poncet et al., 2007) and almost half (48.5%) of intensivists (Embrico et al., 2007) showed severe Burnout Syndrome related symptoms. The experience of psychological distress is prevalent within both general medics and more specialist consultant intensivists (Coomber et al., 2002) with research reporting that 23.8% of ICU intensivists demonstrate symptoms of depression (Embrico et al., 2012). Moreover, a significant proportion of medical staff across adult and paediatric critical care and acute care disciplines report symptoms of post-traumatic stress (51.5%) and burnout (59.8%) which directly relate to experiences within the workplace (Colville et al., submitted for publication). An interesting finding reported by Colville et al. (submitted for publication) identified that doctors are more likely to experience burnout than nurses even after the individual's resilience and ability to employ coping strategies is mediated for.

Yet despite the demands of the role and ongoing exposure to potentially traumatic experiences, many intensivists remain in the specialism of Critical Care. As such, questions arise from this body of research: when burnout is more prevalent in this specialism, what keeps Critical Care intensivists in the profession and further, what keeps them psychologically healthy? Although indicated as a protective factor against the risk of burnout and post-traumatic stress (Colville et al., submitted for publication) and consequently an area in need of further study (Garcia et al, 2014), research into resilience in Critical Care Intensivists remains elusive. The principle aim of this research is to bring clarity to the understanding of resilience in Critical Care Intensivists.

**Brief outline of proposed research study**

The proposed study adopts a qualitative design exploring consultant intensivists' experiences of working within a Critical Care unit and within this to consider experiences of resilience and changes within resilience.

**Objectives:**

1. To explore in depth consultant intensivists’ experience of Critical Care, what keeps them working in this highly demanding and potentially traumatic specialism. To

Resilience in Critical Care Consultants: PROTOCOL Version 1: 26/05/2015
explore within this the individual characteristics and environmental shifts which might impact on feelings of resilience.

2. To consider how this relates to current psychological theory and NHS policy / guidelines relevant to the Critical Care Unit.

**Method**

Inclusion/Exclusion Criteria is the same for both phases of the research study.

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<th>Inclusion Criteria</th>
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<td>- All participants must be &gt;18 years</td>
<td>- Working in Critical Care Specialism for less than 1 year</td>
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<tr>
<td>- Consultant Intensivist</td>
<td>- Working as a Consultant Intensivist / Critical Care Consultant for less than 1 year</td>
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<tr>
<td>- Worked as a Consultant intensivist within Critical Care for more than 1 year</td>
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<td>- Must be able to understand English and communicate responses.</td>
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**Design:**

Semi-structured interviews will be conducted to explore in depth consultant intensivists’ experience of working in Critical Care, what keeps them working in this highly demanding and potentially traumatic specialism. In particular questions will guide exploration of individual characteristics and environmental factors which might impact on feelings of resilience. Participants will be given a choice of venue for conducting the interview which will be neutral but confidential to ensure participants feel comfortable. Venue options will be presented for interviews to be undertaken either at Cardiff University, in consultation rooms separate to the Critical Care Units across four research sites (Adult Critical Care Units within University Hospital Wales, Cardiff and Vale University Health Board; Royal Gwent Hospital, Aneurin Bevan University Health Board; Royal Glamorgan Hospital, Cwm Taf University Health Board; Morriston Hospital, ABM University Health Board), or via telephone. Interviews will last no more than 1 hour. The interviews will be audio-recorded in order to enable the researcher to accurately transcribe the interview data to support the researcher with data analysis. Participants will be made aware of this in advance on the consent form.

The Researcher will be guided by a Grounded Theory approach to the development of questions, data collection and analysis. In line with the Grounded Theory approach to qualitative research, the number of interviews conducted will be determined by the point of...
data saturation, the point in which no new theoretical insights or understandings emerge from the data (Charmaz, 2006, 2014).

Sample Size:
We envisage data saturation will be achieved by 12 participant interviews, in line with the literature within Grounded Theory (Charmaz, 2006, 2014). However, if saturation is not achieved up to 25 interviews may be undertaken.

Sampling:
Initially sampling will be purposeful in order to access wide variation in consultant intensivists’ experience of resilience during their time working in Critical Care. As such, participants who express interest in partaking in the research will be interviewed in the first instance. Thereafter, theoretical sampling will be adopted, enabling the selection of participants to be influenced and guided by the emerging theory within the previous data, again in line with the Grounded Theory approach.

Recruitment:
Participants will be recruited from the Critical Care Units across four NHS University Health Boards: Cardiff and Vale University Health Board, Aneurin Bevan University Health Board, Cwm Taf University Health Board, ABMU University Health Board. Participants will consist only of critical care consultants / consultant intensivists.

Participation will be voluntary. A Research Outline detailing information about the study will be made accessible to the relevant Critical Care Units. The researcher will also attend meetings with the Consultants to inform them of the project. In addition, the named local clinician will email the participant information sheet to critical care consultants within their corresponding Critical Care Units, inviting their participation. Consultants will be able to volunteer to participate, registering their interest to be involved by contacting the researcher directly.

All interested participants will be provided with a research outline, written participant information sheet and consent form.

Data Protection:
All participants will be assigned a non-gendered pseudonym throughout the transcription, analysis and report write up to ensure confidentiality and protect the identity of participants. In addition, services and specific geographical locations will not be specified to further
protect participants’ identity. Direct quotes will be used in the final report but will not be paired with any identifiable information. Transcriptions and audio recordings will be stored on a computer which is password protected. Each participant will be offered a copy of the transcript and will be given the opportunity to confirm if it is accurate. Recordings will be deleted following transcription and the transcripts will be kept for 5 years (in line with Cardiff University policy for arrangements and systems for the management and monitoring of research) in a secure location to maintain confidentiality.

Analysis:
Grounded Theory will be adopted as an approach for the collection and analysis of qualitative data which will occur concurrently. Grounded Theory holds a ‘systematic, yet flexible’ inductive approach to the collection and analysis of data which serves to detect emerging themes from the data and from this construct contextualised theories which are “grounded” in the data (Charmaz, 2014 p.1; Strauss & Corbin, 1997). This is an interactive process which incorporates an iterative approach, continually moving between data and analysis. As such, each interview will be transcribed immediately after and the data reviewed to identify emerging themes which will inform changes in the subsequent interviews. Interview questions will be reviewed and amended to focus increasingly on the theory which is emerging from the data in an evolving and interactive process.

Potential for Risk & Benefit
Risk to Participants:
Participating in interviews within which consultant intensivists’ will be invited to reflect upon their experience of working in Critical Care, a potentially traumatic environment, may result in the experience of distress. With this in mind, the potential for distress will be clearly outlined in the participant information sheet provided before they give consent to take part in the study. If participants find the interview distressing, they will be offered time with the researcher who is a clinical psychology trainee, to ‘debrief’ immediately following the interviews. If distress continues, or if the interview give rise to an awareness of difficulties experienced by the participant raising concern regarding wellbeing, participants will be given information regarding available services within each UHB for ongoing support. For Cardiff and Vale this is the in-house Consultant Clinical Psychologist or the Employee Wellbeing Service. For other UHBs this their UHBs Employee Wellbeing Service. Participants will be clearly informed of their rights to discontinue participation in the study at any stage of the research. Information detailing local support services (e.g. Staff Wellbeing Occupational Health Services) will be provided.

Resilience In Critical Care Consultants: PROTOCOL Version 1: 26/05/2016
There is also a small possibility for there to be a disclosure of risk issues during the interview. Should the potential for risk arise, the Clinical Supervisor, will be notified immediately for further assessment and management of the risk.

Participation in interviews will take approximately 30-60 minutes depending on the answers given by participants. Participants will be made aware of this burden within the consent process. Furthermore, conversations with the relevant Critical Care Units will ensure agreement regarding when the interviews take place to ensure they do not place additional burden upon the Unit (these agreements may site specific and differ according to site requirements but could include the interviews being conducted out of working hours, or when cover is arranged).

**Benefits:**
This research will contribute to the knowledge base in relation to Burnout and Resilience. Such understanding in to resilience in this population embedded within a traumatic environment may inform the development of future interventions (both at a site and organisational level) to improve resilience and wellbeing within the intensivists. Such interventions may have an impact upon the improvement of staff retention across the Critical Care Specialism and potentially influence a reduction sickness levels (POCF, 2016). As such, this research may have implications for the sustainability of Critical Care Services.

Furthermore, recognising the identified negative impact of burnout across the NHS workforce upon wellbeing, patient safety and mortality (POCF, 2016), the positive implications of this research could facilitate and inform organisational change to incorporate the understanding gained around resilience into concepts of intelligent kindness, compassionate care. Research highlights improvements within patient care and a reduction in mortality rates when there is increased working satisfaction (Michie, 2004) and compassion self, colleagues and patients (POCF, 2016; The Kings Fund, 2009). As such, informing the development of individual and organisational interventions to draw upon an understanding of resilience to address the negative effects of burnout upon decision making, patient safety and patient experience.

**Risk to Researchers:**
Participants will be NHS employees who have been subject to NHS employment checks. The ID badges of all staff will be checked to confirm their identity.
Appendix 7: Email sent to Occupational Health Services Requesting their support

Request to signpost to your service: Qualitative research project exploring resilience in consultant intensivists

From: Josephine Allen
Mon 13/06/2016 15:36
To:
Adrian.Neal@wales.nhs.uk;
Debbie.Rees-Adams@wales.nhs.uk;
Judith.Sinnott@wales.nhs.uk;
employee.wellbeing@wales.nhs.uk
Cc:
Victoria Samuel (Cardiff and Vale UHB - Dclinpsy) <Victoria.Samuel@wales.nhs.uk>;
Julie Highfield (Cardiff and Vale UHB - Psychology) <Julie.Highfield@wales.nhs.uk>

To Whom it May Concern,

My name is Josie Allen, I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology at Cardiff University. As my Doctoral Thesis, I am proposing a research project exploring the experience of resilience for consultant intensivists working within Critical Care Directorates. This research project is being supervised by Dr Julie Highfield and Dr Victoria Samuel who have been copied into this email.

I am hoping to interview consultant intensivists from several Critical Care Directorates across multiple Health Boards within Wales. Critical Care Units associated with Cardiff & Vale UHB, AB UHB, ABM UHB and Cwm Taf UHB have agreed to take part in the qualitative research study. We are now in the process of completing an application to the relevant UHB R&D departments. As part of the research protocol we would like to be able to advise consultants of where they can access additional support following the interviews should anything come up for them during the interview process for which they would like support. Prior to submission therefore, we wanted to contact each Employee Wellbeing Service / Occupational Health Service to gain your permission. With this in mind, I would be grateful if you could consider whether your service is happy for consultant intensivists in your UHB who participate in the research to be signposted to the relevant Employee Wellbeing / Occupational Health Service should anything arise for them.

I have attached the participant information sheets and debrief sheet for your information. Please note that I have included the details of each UHB Employee Wellbeing / Occupational Health Service on the debrief sheet. Please let me know if these details are incorrect or if you do not wish for your service to be included so the debrief sheet can be amended accordingly. If you require any further information or have any queries regarding this research project please do not hesitate to contact me.
I look forward to hearing from you.

Your Sincerely,

Josie Allen
Trainee Clinical Psychologist

Cardiff & Vale UHB
Cardiff University
Appendix 8: Invitation to participate for prospective principle investigators within identified CCUs

Proposed research:

Resilience in Critical Care Consultants: Elucidating Intensivists’ Experience
Exploring the experience of resilience of consultant intensivists working within Critical Care

My name is Josie Allen, I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology at Cardiff University. As my Doctoral Thesis, I am proposing a research project exploring the experience of resilience for consultant intensivists working within Critical Care Directorates. I am hoping to interview consultant intensivists from several Critical Care Directorates across multiple Health Boards within Wales. This document is an initial proposal to provide information to units who may like to be involved in the study prior to submission to Local UHB R&D departments. I would like to invite your team to be part of this prospective research study. If after reading through this proposal you decide that you would like your team to partake in the research or if you have any additional questions, please email either myself (AllenJ17@cardiff.ac.uk), Dr Julie Highfield or Dr Victoria Samuel who are supervising this study. Thereafter, a final research proposal will be submitted to the relevant R&D departments with interested sites specified and a named contact for each site identified.

Clinical Supervisor: Dr Julie Highfield, Consultant Clinical Psychologist: Critical Care Directorate, Cardiff and Vale University Health Board; Julie.Highfield@wales.nhs.uk
Academic Supervisor: Dr Victoria Samuel, Senior Research Tutor, South Wales Programme in Clinical Psychology, Cardiff University; Victoria.Samuel@wales.nhs.uk

Research Project Title:

Background:
Burnout describes a pattern of psychological distress and emotional exhaustion which occurs within professionals as a result of chronic occupational and interpersonal stressors (Maslach et al., 1996; Maslach & Schaufeli, 1993). Burnout is recognised to comprise of negative emotions, attitudes and behaviours towards work (Maslach et al., 2001) and is associated with physical illness and emotional or psychological distress impacting upon absenteeism and high turnover (Maslach et al., 2001). A recent report by the Points of Care Foundation identified that sickness rates for NHS staff are amongst the highest across the UK, with the highest proportion of sickness being related to stress, burnout and mental health difficulties (POCF, 2016).
The implications to care of burnout across NHS staff are significant with research identifying burnout to impact negatively upon performance and the quality of medical care provision (Shirom et al., 2006; Weisman & Teitelbaum, 1985) in addition to predicting lower patient satisfaction (Garman et al., 2002; McCue, 1982). This identified impact of burnout within research is recognised within the recent POCF report which raised concern relating to the negative effects of burnout upon decision making, patient safety and patient experience (POCF, 2016). Empirical studies have indicated that improved working satisfaction (Michie, 2004) and compassion to self and colleagues improves patient care and reduces mortality rates (POCF, 2016). The past decade has seen recognition within research of the presence of burnout across the medical profession (Shanafelt et al., 2012).

Critical Care Units are highly stressful environments in which medical staff are required to provide intensive medical interventions to patients at a critical level of medical need. The working life of an intensivist involves delicate yet highly emotive and high stakes decisions. Decisions such as those relating to end-of-life have been associated with decreased job satisfaction, emotional and psychological burnout (Flannery et al., 2015). Furthermore, a recent British survey identified that 43% of intensivists reported health problems related to work, in particular a link with the intensity of on-call duty being highlighted (Jones et al., 2014). Research consistently reports a high presence of burnout within Intensive Care or Critical Care medical staff teams (Guntupalli et al., 2014; Merlani et al., 2011; Curtis & Puntilllo, 2007; Teixeira et al., 2013).

In studies conducted in the context of the French equivalent Intensive Care Units, 33% of medical staff (Poncet et al., 2007) and almost half (46.5%) of intensivists (Embriaco et al., 2007) showed severe Burnout Syndrome related symptoms. The experience of psychological distress is prevalent within both general medics and more specialist consultant intensivists (Coomber et al., 2002) with research reporting that 23.8% of ICU intensivists demonstrate symptoms of depression (Embriaco et al., 2012). Moreover, a significant proportion of medical staff across adult and paediatric critical care and acute care disciplines report symptoms of post-traumatic stress (51.5%) and burnout (59.8%) which directly relate to experiences within the workplace (Colville et al., submitted for publication). A comparison study of Paediatric Intensivists with General Paediatric Consultants identified burnout as more prevalent in Paediatric Intensivists (Garcia et al, 2014). Colville et al. (submitted for publication) identified that doctors are more likely to experience burnout than nurses even after the individual’s resilience and ability to employ coping strategies is mediated for.

Yet despite the demands of the role and ongoing exposure to potentially traumatic experiences, many intensivists remain in the specialism of Critical Care. As such, questions arise from this body of research: although burnout is more prevalent in this specialism, what keeps Critical Care intensivists in the profession and what keeps them psychologically healthy? Although indicated as a protective factor against the risk of burnout and post-traumatic stress (Colville et al., submitted for publication), and consequently an area in need of further study (Garcia et al, 2014), research into resilience in Critical Care Intensivists remains elusive. The principle aim of this research is to bring clarity to the understanding of resilience in Critical Care Intensivists.
**Aims and Objectives:**
To explore in depth consultant intensivists’ experience of Critical Care, what keeps them working in this highly demanding and potentially traumatic specialism. To explore within this the individual characteristics and environmental factors which might impact on feelings of resilience. To consider how this relates to current psychological theory and NHS policy / guidelines relevant to the Critical Care Unit.

**Clinical Relevance:**
Implications for patient care and staff retention e.g. informing organisational strategies to improve the wellbeing of Consultants within Critical Care

**Methodology:** Grounded Theory
**Sample (size):** 12
**Sample Source:** Critical Care Consultants from across multiple sites in Wales
**Inclusion Criteria:** Critical Care Consultants; working in Critical Care Unit as a Consultant intensivist for more than 1 year
**Exclusion Criteria:** Working as a Consultant intensivist in Critical Care Unit for less than 1 year
**Measures:** Semi-structured interview questions (subject to changes)
Appendix 9: Email invitation to participate in research sent to intensivists via principle investigators

From: Julie Highfield (Cardiff and Vale UHB - Psychology)  
Sent: 05 October 2016 08:23  
To: Josephine Allen & all consultant intensivists  
Subject: FW: Invitation to participate in research: Resilience in Critical Care Consultants.

Dear All

Please see below. Josie is a trainee clinical psychologist conducting her research with critical care consultants. Participation should only take about 1.5 hours of your time and would greatly help us understand the factors that maintain consultant’s resilience in a critical care setting.

If you are interested in participating, please contact Josie directly, or if you are happy for me to know you are participating, reply to this email.

Many thanks for considering this.

Julie

Dr Julie Highfield  
Consultant Clinical Psychologist in Critical Care (Adult and Paediatric)

Working Days Monday-Thursday

Adult Critical Care  
A3 Corridor  
University Hospital of Wales  
Heath Park  
Cardiff. CF14 4XW  
Tel: 029 20 745114 (45114 internal)

Paediatric Critical Care  
Level 3 - Star Floor  
The Noah's Ark Children's Hospital for Wales  
Cardiff  
CF14 4XW

DCP Wales Committee Ordinary Member
Dear consultant intensivists,

My name is Josie Allen. I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology at Cardiff University. Some of you may already be aware of a prospective research study which I am undertaking as part of my Doctoral Thesis under the supervision of Dr Julie Highfield and Dr Victoria Samuel. The research project we are undertaking aims to explore the resilience of consultants working within Critical Care, recruiting from Wales. This project has now received approval from Cardiff and Vale UHB R&D department [relevant UHB Research and Development Department]. As such, I have asked Julie [UHB Principle Investigator] to forward this email inviting you to participate in this study.

Attached to this email are documents which provide information relating to the project in addition to a consent form. **If after reading through the attached research outline and information sheet you decide that you would like to partake in the research or if you have any additional questions, please email either myself (AllenJ17@cardiff.ac.uk), Dr Julie Highfield or Dr Victoria Samuel who are supervising this study.** Thereafter, please read through the participant information sheet and indicate that you have read this information by completion and signing of the consent form.

I hope that you will consider participation in this study. I look forward to hearing from you.

Kind Regards

Josie Allen
Trainee Clinical Psychologist
Cardiff University
Cardiff & Vale UHB.

**Confidentiality**

This message is strictly confidential and intended for the person or organisation to whom it is addressed. If you are not the intended recipient of the message then please notify the sender immediately. Any of the statements or comments made above should be regarded as personal and not necessarily those of Cardiff & Vale University Health Board, any constituent part or connected body. Email communication is subject to monitoring; for further information [http://www.wales.nhs.uk/sitesplus/864/page/50329](http://www.wales.nhs.uk/sitesplus/864/page/50329)

Mae'r neges hon yn gyfrinachol. Os nad chi yw'r derbynnydd y bwriedid y neges ar ei gyfer, byddwch mor garedig b rhoi gwybod yr anfonydd yn ddi-od. Dyliid ystyried unrhyw ddatganiadau neu sylwadau a wneir uchod yn rhai personol, ac nid o angenrhaid yn rhai o eiddo Bwriad ddychwelyd Prifysgol Caerdydd ar Fro, gan unrhyw ran gyfansoddi o'nhoni na chorf cysylltiedig. Mae cyfathrebu drwy e-bost yn amodol i fonio; am fwy o wybodaeth. [http://www.wales.nhs.uk/sitesplus/864/cymraeg](http://www.wales.nhs.uk/sitesplus/864/cymraeg)

Freedom of Information

Please be aware that, under the terms of the Freedom of Information Act 2000, Cardiff and Vale University Health Board may be required to make public the content of any emails or correspondence received. For further information on Freedom of Information, please refer to the Cardiff and Vale UHB website [http://www.cardiffandvaleuhb.wales.nhs.uk/freedom-of-information-new](http://www.cardiffandvaleuhb.wales.nhs.uk/freedom-of-information-new)

Appendix 10: Participant information sheets

Research Outline


Exploring the experience of resilience of consultant intensivists working within Critical Care

My name is Josie Allen. I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme in Clinical Psychology at Cardiff University. As my Doctoral Thesis, I am proposing a research project exploring the experience of resilience for consultant intensivists working within Critical Care Directorates.

I am hoping to interview consultant intensivists from several Critical Care Directorates across multiple Health Boards within South Wales. This document is an outline of the research project to provide information to participants who may like to be involved in the study. If after reading through this research outline you decide that you would like to partake in the research or if you have any additional questions, please email either myself (AllenJ17@cardiff.ac.uk), Dr Julie Highfield or Dr Victoria Samuel who are supervising this study. Thereafter, please read through the participant information sheet and indicate that you have read this information by completion and signing of the consent form.

Clinical Supervisor: Dr Julie Highfield, Consultant Clinical Psychologist: Critical Care Directorate, Cardiff and Vale University Health Board; Julie.Highfield@wales.nhs.uk

Academic Supervisor: Dr Victoria Samuel, Senior Research Tutor, South Wales Programme in Clinical Psychology, Cardiff University; Victoria.Samuel@wales.nhs.uk

Background:

Burnout describes a pattern of psychological distress and emotional exhaustion which occurs within professionals as a result of chronic occupational and interpersonal stressors (Maslach et al., 1996; Maslach & Schaufeli, 1993). Burnout is recognised to comprise of negative emotions, attitudes and behaviours towards work (Maslach et al., 2001) and is associated with physical illness and emotional or psychological distress impacting upon absenteeism and high turnover (Maslach et al., 2001). A recent report by the Points of Care Foundation identified that sickness rates for NHS staff are amongst the highest across the UK, with the highest proportion of sickness being related to stress, burnout and mental health difficulties (POCF, 2016).

The implications to care of burnout across NHS staff are significant with research identifying burnout to impact negatively upon performance and the quality of medical care provision (Shirom et al., 2006; Weissman & Teitelbaum, 1985) in addition to predicting lower patient satisfaction (Garman et al., 2002; McCue, 1982). This identified impact of burnout within research is recognised within the recent POCF report which raised concern relating to the negative effects of burnout upon decision making, patient safety and patient experience (POCF, 2016). Empirical studies have indicated that improved working satisfaction (Michie, 2004) and compassion to self and colleagues improves patient care and reduces mortality rates (POCF, 2016).

The past decade has seen recognition within research of the presence of burnout across the medical profession (Shanafelt et al., 2012).
Critical Care Units are highly stressful environments in which medical staff are required to provide intensive medical interventions to patients at a critical level of medical need. The working life of an intensivist involves delicate yet highly emotive and high stakes decisions. Decisions such as those relating to end-of-life have been associated with decreased job satisfaction, emotional and psychological burnout (Flannery et al., 2015). Furthermore, a recent British survey identified that 43% of intensivists reported health problems related to work, in particular a link with the intensity of on-call duty being highlighted (Jones et al., 2014). Research consistently reports a high presence of burnout within Intensive Care or Critical Care medical staff teams (Guptapalli et al., 2014; Merlani et al., 2011; Curtis & Puntillo, 2007; Teixeira et al., 2013).

In studies conducted in the context of the French equivalent Intensive Care Units, 33% of medical staff (Poncet et al., 2007) and almost half (46.5%) of intensivists (Embreaco et al., 2007) showed severe Burnout Syndrome related symptoms. The experience of psychological distress is prevalent within both general medical and more specialist consultant intensivists (Coomber et al., 2002) with research reporting that 23.8% of ICU intensivists demonstrate symptoms of depression (Embreaco et al., 2012). Moreover, a significant proportion of medical staff across adult and paediatric critical care and acute care disciplines report symptoms of post-traumatic stress (51.5%) and burnout (59.8%) which directly relate to experiences within the workplace (Colville et al., submitted for publication). A comparison study of Paediatric Intensivists with General Paediatric Consultants identified burnout as more prevalent in Paediatric Intensivists (Garcia et al., 2014). Colville et al. (submitted for publication) identified that doctors are more likely to experience burnout than nurses even after the individual's resilience and ability to employ coping strategies is mediated for.

Yet despite the demands of the role and ongoing exposure to potentially traumatic experiences, many intensivists remain in the specialism of Critical Care. As such, questions arise from this body of research: although burnout is more prevalent in this specialism, what keeps Critical Care intensivists in the profession and what keeps them psychologically healthy? Although indicated as a protective factor against the risk of burnout and post-traumatic stress (Colville et al., submitted for publication), and consequently an area in need of further study (Garcia et al., 2014), research into resilience in Critical Care Intensivists remains elusive. The principle aim of this research is to bring clarity to the understanding of resilience in Critical Care Intensivists.

Aims and Objectives:

To explore in depth consultant intensivists' experience of Critical Care, what keeps them working in this highly demanding and potentially traumatic specialism. To explore within this the individual characteristics and environmental factors which might impact on feelings of resilience.

To consider how this relates to current psychological theory and NHS policy / guidelines relevant to the Critical Care Unit.

Clinical Relevance:

Implications for patient care and staff retention e.g. informing organisational strategies to improve the wellbeing of Consultants within Critical Care, considering compassionate care.
Methodology: Grounded Theory
Sample (size): 12-25
Sample Source: Critical Care Consultants from across multiple sites in South Wales
Inclusion Criteria: Critical Care Consultants; working in Critical Care Unit as a Consultant intensivist for more than 1 year
Exclusion Criteria: Working as a Consultant intensivist in Critical Care Unit for less than 1 year
Measures: Semi-structured interview questions (subject to changes)
Participant Information Sheet

Title of Project:

You are being invited to take part in this project on the experience of resilience for consultant intensivists working within Critical Care Units. It is a research study conducted by a Trainee Clinical Psychologist, Josie Allen who is studying for the Doctorate in Clinical Psychology at Cardiff University.

Before you decide whether to take part, we would like you to understand the purpose of the study and what it will involve for you. Please do ask Josie if there is anything that it not clear or if you have any questions.

The purpose of this study
This project is looking at how consultant intensivists experience working within Critical Care, with a focus on exploring perceptions of resilience. Within this, there will be a focus on individual characteristics and environmental factors which might impact on feelings of resilience. It is hoped that this study will bring clarity to the understanding of resilience in Critical Care Intensivists and help us to to improve the wellbeing of consultants within Critical Care.

Why have I been invited to take part?
You have been invited to take part because you are a consultant intensivist who has been working as a consultant in a Critical Care setting for more than 1 year. We would like to find out about your experience of working in Critical Care and your understanding of your own resilience, what helps you manage difficulties and what keeps you in this specialism. We are aiming to speak to a maximum of 25 consultant intensivists who work in Critical Care Units across South Wales. It is important to remember that participation or non-participation in this study will have no bearing on your present or future employment.

What will happen?
If you agree to take part in this study you will be asked to join Josie Allen for an interview. You have a choice of venue which will be neutral and confidential. The choices for venue are: in a confidential room at the hospital in which you work (away from the ward in which you work); Cardiff University, telephone interview. You will be interviewed about your experience of working in Critical Care for up to 60 minutes. The interview will be audio-recorded. Following this Josie will transcribe the interview and anonymise any identifiable information.

What will happen next?
After your interview has been transcribed, Josie will look for common themes between what you and others have explained. This will form the basis of the report.

Do I have to take part?
It is entirely up to you to decide to take part in this study or not. Please ask Josie if you have any questions after reading this information sheet. If you are interested in participating, you will be asked to sign a consent form and offered another opportunity to ask questions about the study before the interview begins. During the interview you may take a break at any point or to withdraw from the project.

What are the potential disadvantages of taking part?
It is important to know that during the interview you will be asked about your experience of working in Critical Care (e.g. how you managed to return to work after...
a difficult case) and it is possible that you could find this distressing. We do not have
to talk about anything that you do not wish to, and you will be encouraged to talk only
about those things which you feel able and comfortable discussing. If you would like
to bring someone along with you, either to sit and wait outside or join you throughout
part or all of the interview, that is fine. Following this, you will also be given the
opportunity to discuss the experience of being interviewed and any thoughts/feelings
that this brought up for you and ask further questions about the study - this is known as a
debrief.

If following the interview any points of concern have been raised for you regarding
your wellbeing you will be given information regarding how to access your local
provision of employee support. For Cardiff and Vale this will be the in-house
Consultant Clinical Psychologist or the Employee Wellbeing Service. For other UHBs
this will be your Employee Wellbeing Service or Occupational Health.

The interview process will take up to 60 minutes. There is an agreement regarding
when your interview will take place with each partaking Critical Care Unit to ensure
there is no impact on provision of care on the unit.

What are the benefits of taking part?
Whilst taking part in the study will not benefit you directly, it is hoped that the project
will lead to an increased understanding of resilience when working as a consultant
intensivist in Critical Care. This may help services to be better able to support
intensivists in the workplace, informing potential strategies to improve the wellbeing
of consultant intensivists and thus improving patient care and staff retention.

Will my taking part remain confidential?
All information will be made anonymous and you will not be able to be identified by
reading the report. This means that names of participants, services and specific
geographical locations will not be specified to protect your identity. Direct quotes will
however be used in the final report but will not be paired with any identifiable
information. Non-gendered pseudonyms (made up names e.g. Sam) will be used to
replace your name and will appear next to the quotes only. Transcriptions and audio
recordings will be stored on a computer which is password protected.

You will be offered a copy of the transcript and will be given the opportunity to
confirm if it is accurate. Recordings will be deleted following transcription and the
transcripts will be kept for 5 years in a secure location to maintain confidentiality.
If you disclose information which relates to your own or others safety your
confidentiality may be waivered. In this case discussions regarding how to best
ensure your own and other’s safety will also be held with the other named
researchers (as below).

Who else is involved in this research?
Project Lead: Josie Allen
Role: Trainee Clinical Psychologist
Email: Allenj17@cardiff.ac.uk
Telephone: 02920 870582
Address: South Wales Doctoral Programme in Clinical
Psychology, 11th Floor, School of Psychology, Tower Building,
70 Park Place, Cardiff, CF10 3AT.

Clinical Supervisor: Dr Julie Hightfield
Role: Consultant Clinical Psychologist
Email: Julie.Hightfield@wales.nhs.uk
Resilience in Critical Care Consultants: Consent Form Version 1: 26/05/2016
Josie Allen
Telephone: 02920 745114 (45114 internal)
Address: Adult Critical Care Directorate, A3 Corridor,
University Hospital of Wales, Heath Park, Cardiff. CF14 4XW

Academic Supervisor: Dr Victoria Samuel
Role: Senior Research Tutor
Email: Victoria.Samuel@wales.nhs.uk
Telephone: 02920 870582
Address: South Wales Doctoral Programme in Clinical Psychology, 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT.

Site specific collaborator / named contact:
UHW
Dr Julie Hightfield
Adult Critical Care
Role: Consultant Clinical Psychologist
Email: Julie.Hightfield@wales.nhs.uk
Telephone: 02920 745114 (45114 internal)
Address: Adult Critical Care Directorate, A3 Corridor,
University Hospital of Wales, Heath Park, Cardiff. CF14 4XW

Royal Gwent
Dr Nick Mason
Adult Critical Care
Role: Critical Care Consultant
Email: Nick.Mason@wales.nhs.uk
Telephone: 01633 234179
Address: Royal Gwent Hospital, Cardiff Road, Newport, NP20 2UB

Morriston Hospital
Dr Ausama H Mohammed MBChB, MRCS, FRCA, EDIC, FFICM
Adult Critical Care
Role: Consultant Anaesthesia & Intensive Care Medicine
Email: Ausama-Hassan.Mohammed@wales.nhs.uk
Telephone: 07968733652
Address: Morriston Hospital, Heol Maes Eglyn, Morriston,
Swansea, SA6 8NL

Royal Glamorgan
Dr Bethan Gibson
Adult Critical Care
Role: Consultant Anaesthesia
Email: Bethan.Gibson@wales.nhs.uk
Telephone: 01443443600
Address: Royal Glamorgan Hospital, Ynysmoerdy, Pontyclun,
Mid Glamorgan, CF72 8XR

What if I have concerns about this research?
If you have any concerns or complaints about this project, please direct these in the first instance to: Reg Morris (Honorary Professor and Director of the Doctoral Programme in Clinical Psychology). Address: 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT. Telephone: 02920 870582
You can also contact Helen Falconer in the Concerns Department at Cardiff and Vale University Health Board. Address: Cardiff and Vale University Health Board, Whitchurch Hospital, Park Road, Cardiff CF14 7XB. Telephone: 02920 336365.

Resilience in Critical Care Consultants: Consent Form Version 1: 26/05/2016
Josie Allen
**Appendix 11: Participant consent form**

<table>
<thead>
<tr>
<th>Participant Consent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of Project:</strong> Resilience in Critical Care Consultants: Elucidating Intensivists’ Experience.</td>
</tr>
<tr>
<td><strong>Participant non-gendered pseudonym:</strong></td>
</tr>
<tr>
<td><strong>Research Team:</strong></td>
</tr>
<tr>
<td><strong>Project Lead:</strong> Josie Allen</td>
</tr>
<tr>
<td>Role: Trainee Clinical Psychologist</td>
</tr>
<tr>
<td>Email: <a href="mailto:AllenJ17@cardiff.ac.uk">AllenJ17@cardiff.ac.uk</a></td>
</tr>
<tr>
<td>Telephone: 02920 870582</td>
</tr>
<tr>
<td>Address: South Wales Doctoral Programme in Clinical Psychology, 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT.</td>
</tr>
<tr>
<td><strong>Clinical Supervisor:</strong> Dr Julie Highfield</td>
</tr>
<tr>
<td>Role: Consultant Clinical Psychologist</td>
</tr>
<tr>
<td>Email: <a href="mailto:Julie.Highfield@wales.nhs.uk">Julie.Highfield@wales.nhs.uk</a></td>
</tr>
<tr>
<td>Telephone: 02920 745114</td>
</tr>
<tr>
<td>Address: Critical Care Directorate, University Hospital Wales, Cardiff</td>
</tr>
<tr>
<td><strong>Academic Supervisor:</strong> Dr Victoria Samuel</td>
</tr>
<tr>
<td>Role: Senior Research Tutor</td>
</tr>
<tr>
<td>Email: <a href="mailto:Victoria.Samuel@wales.nhs.uk">Victoria.Samuel@wales.nhs.uk</a></td>
</tr>
<tr>
<td>Telephone: 02920 870582</td>
</tr>
<tr>
<td>Address: South Wales Doctoral Programme in Clinical Psychology, 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT.</td>
</tr>
</tbody>
</table>

Resilience in Critical Care Consultants: Consent Form Version 1: 29/05/2016
Josie Allen
Title of Project: Resilience in Critical Care Consultants: Elucidating Intensivists’ Experience.

Please initial each of the following statements if you agree:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I confirm that I have read and understood the information sheet for the above named study</td>
<td></td>
</tr>
<tr>
<td>2. I have been given the opportunity to ask any questions, and have had any questions answered to my satisfaction</td>
<td></td>
</tr>
<tr>
<td>3. I understand that taking part in the study will have no impact on my employment either positively or negatively presently or in the future</td>
<td></td>
</tr>
<tr>
<td>4. I understand that my participation is voluntary and that I am free to withdraw from participating in the study at any time, without giving any reason</td>
<td></td>
</tr>
<tr>
<td>5. I understand that relevant sections of the data collected during the study may be looked at by members of a Cardiff University research team, from regulatory authorities or from NHS Health Boards, where it is relevant to my taking part in this research.</td>
<td></td>
</tr>
<tr>
<td>6. I understand that information I give will be published as part of the project (in the form of quotations), but I will not be able to be identified by this information (quotations will be made anonymous). I give consent for anonymous quotations of mine to be published in the study write-up.</td>
<td></td>
</tr>
<tr>
<td>7. I consent to being interviewed about my experience of working as a consultant intensivist in Critical Care including exploring ideas about resilience.</td>
<td></td>
</tr>
<tr>
<td>8. I consent to the interview being recorded and transcribed. I understand that the audio recordings will be destroyed once they have been transcribed, but the transcriptions will be kept securely for a period of 5 years.</td>
<td></td>
</tr>
<tr>
<td>9. I understand that the research team will discuss issues of safety and the Clinical Lead attached to my Critical Care Unit may be contacted in the event of concerns about my safety or the safety of others.</td>
<td></td>
</tr>
<tr>
<td>10. I agree to take part in the above study</td>
<td></td>
</tr>
</tbody>
</table>

Signature of Participant: ______________  Date ______________

Signature of Researcher: ______________  Date ______________

My choice of venue for the interview
For the interview I would like to:

- Meet Josie at a neutral and confidential room within the hospital where I work, away from the Critical Care Unit [ ]
- Meet Josie at a neutral and confidential room at Cardiff University [ ]
- Be telephoned by Josie to hold the interview over the phone [ ]

My phone number is: _______________________

Resilience in Critical Care Consultants: Consent Form Version 1: 24/06/2015
Josie Allen
Appendix 12: Participant debrief sheet

Title of Project:

Thank you for taking part in this study. This debrief sheet will provide information about the purpose of this study. Please take the time to read through this information. Please do ask the researcher, Josie, if you have any questions about the research.

The purpose of this study
This project is looking at how consultant intensivists experience working within Critical Care, with a focus on exploring perceptions of resilience. Within this, there was a focus on individual characteristics and environmental factors which might impact on feelings of resilience. It is hoped that this study will bring clarity to the understanding of resilience in Critical Care Intensivists and help us to improve the wellbeing of consultants within Critical Care. This may help services to be better able to support intensivists in the workplace, informing potential strategies to improve the wellbeing of consultant intensivists and thus improving patient care and staff retention.

The impact of the interview
You have partaken in an audio-recorded interview which lasted for up to 60 minutes. During the interview you were asked about your experience of working in Critical Care (e.g. how you managed to return to work after a difficult case). These questions may have aroused some difficult thoughts, feelings or memories which you may have found distressing at the time or may find yourself thinking about over the coming few days.

This debrief time gives you an opportunity to discuss the experience of being interviewed and any thoughts/feelings that this brought up for you and ask further questions about the study.

If following the interview any points of concern have been raised for you regarding your wellbeing there is information at the end of this form regarding how to access your local provision of employee support. For Cardiff and Vale this will be the in-house Consultant Clinical Psychologist or the Employee Wellbeing Service. For other UHBS this will be your Employee Wellbeing Service or Occupational Health.

What will happen next?
After your interview has been transcribed, Josie will analyse the data across all transcripts using a qualitative methodology called “Grounded Theory”. The results of this analysis will form the basis of the Doctorate in Clinical Psychology dissertation. “Key findings” will also be submitted for publication in a relevant peer reviewed journal. A summary of findings will be available to participants, please let me know if you would like this.

Confidentiality
All information will be made anonymous and you will not be able to be identified by reading the report. Non-gendered pseudonyms will be used and any direct quotes used in the final report will not be paired with any identifiable information such as services and specific geographical locations. Transcriptions and audio recordings will be stored on a computer which is password protected.

Resilience in Critical Care Consultants: Debrief Form Version 1: 24/05/2016
Josie Allen
Please do request a copy of the transcript if you would like opportunity to confirm if it is accurate. Audio recordings will be deleted following transcription and the transcripts will be kept for 5 years in a secure location to maintain confidentiality. If you disclose information which relates to your own or others safety your confidentiality may be waived. In this case, discussions regarding how to best ensure your own and other’s safety will also be held with the other named researchers (as below).

Who else is involved in this research?

Project Lead: Josie Allen
Role: Trainee Clinical Psychologist
Email: AllenJ17@cardiff.ac.uk
Telephone: 02920 870582
Address: South Wales Doctoral Programme in Clinical Psychology, 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT.

Clinical Supervisor: Dr Julie Highfield
Role: Consultant Clinical Psychologist
Email: Julie.Highfield@wales.nhs.uk
Telephone: 029 20 745114 (45114 internal)
Address: Adult Critical Care Directorate, A3 Corridor, University Hospital of Wales, Heath Park, Cardiff. CF14 4XW

Academic Supervisor: Dr Victoria Samuel
Role: Senior Research Tutor
Email: Victoria.Samuel@wales.nhs.uk
Telephone: 02920 870582
Address: South Wales Doctoral Programme in Clinical Psychology, 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT.

Employee Wellbeing Services / Occupational Health:

Cardiff & Vale UHB
Health for Health Professionals
http://www.hpwales.co.uk
Employee Wellbeing Service, University Hospital Wales
You can contact Cardiff & Vale Employee Wellbeing Service via:
Telephone: 029 2074 4465 or
Email: employee.wellbeing@wales.nhs.uk

For further information, including self-referral forms, their website is:
http://www.cardiffandvaleuhb.wales.nhs.uk/contact-the-employee-wellbeing-service

Alternatively, intensivists working in UHW Critical Care can access support with the attached consultant clinical psychologist:
UHW Dr Julie Highfield
Adult Critical Care Role: Consultant Clinical Psychologist
Cardiff & Vale UHB Email: Julie.Highfield@wales.nhs.uk
Telephone: 029 20 745114 (45114 internal)
Address: Adult Critical Care Directorate, A3 Corridor, University Hospital of Wales, Heath Park, Cardiff. CF14 4XW

Resilience in Critical Care Consultants: Debrief Form Version 1: 26/06/2016
Josie Allen
Aneurin Bevan UHB
Employee Wellbeing Service
You can contact Aneurin Bevan Employee Wellbeing Service confidentially via:
Telephone: 01633 623768

For further information on the services available to you their website is:
http://www.wales.nhs.uk/sitesplus/866/page/40699

ABM UHB
There are a range of options where you can access support:
Occupational Health Services at Morriston Hospital: 01792 703610
Staff Counselling: 0845 604 8178
Well-being through work Team: 0845 601 7556

For further information on the services available to you visit this website:
http://www.wales.nhs.uk/sitesplus/863/page/66040

Cwm Taf UHB
Occupational Health Services
01443 443443 extension 3231
Cwm Taf Occupational Health Services also promote the free counselling service for
doctors, see the link below:
http://chtb-intranet/SiteDirectory/WorkforceOD/WorkforceManagement/OccHealth/Stress/Useful
%20Documents/Counselling%20for%20Doctors.pdf

What if I have concerns about this research?
If you have any concerns or complaints about this project, please direct these in the
first instance to: Reg Morris (Honorary Professor and Director of the Doctoral
Programme in Clinical Psychology). Address: 11th Floor, School of Psychology,
Tower Building, 70 Park Place, Cardiff, CF10 3AT. Telephone: 02920 870582
You can also contact Helen Falconer in the Concerns Department at Cardiff and Vale
University Health Board. Address: Cardiff and Vale University Health Board,
Whitchurch Hospital, Park Road, Cardiff CF14 7XB. Telephone: 02920 330365.
Appendix 13: Interview schedule

Interview Schedule

Before commencing interview revisit confidentiality and ensure the consent form is signed and the participant has read the information sheets.

Confirm preferred role terminology with participants: “I understand there are differing names given to roles within the profession of critical care consultants depending on background training (intensivist, anaesthetist, critical care consultant). Before we begin, can I confirm with you which term you would prefer me to use throughout the interview?”

If preference is not intensivist replace with preferred term throughout interview.

1. How would you describe your experience of working as a consultant intensivist within an Adult Critical Care Unit in South Wales?
   a. When do you feel “I’ve done a good job”?
   b. Are there things you do to try to reduce the impact of work related stress / distress on patients’ / parents’ experiences.
   c. What do you think they notice / appreciate?

2. What does it mean to you to be a good intensivist?
   a. What would you do differently?
   b. What do you think makes you a good intensivist?

3. When you hear terms like ‘burnout’ or ‘post-traumatic stress’ is this something you can relate to in terms of the experiences of intensivists as a profession?

4. Thinking of particularly challenging situations in ICU, what do they tend to have in common?
   a. How have such experiences affected you (personally, emotionally and in work)?

5. What strategies do you use for managing the impact of particularly difficult days at work – both at work and outside of work?
   a. How do you keep going?

6. Are there any ways in which your approach to managing stress and distress have changed since you’ve worked as an intensivist?

7. Thinking about some of the most demanding / challenging situations you have had to manage, how has this changed your relationship to work / how you now respond, if at all?

8. How does work impact upon your relationships and life outside of work, if at all?

9. How do your relationships and life outside of work support your resilience, if at all?

Resilience in Critical Care Consultants: Interview Schedule Version 1; 24/05/2016
Josie Allen
10. Tell me about your experience of your working hours and how this impacts upon wellbeing.

11. What do you notice about how your colleagues experience and manage stress?

12. If you could change one thing about you or your role that would help buffer the impact of its demands, what would it be?

13. What do you notice about the factors which balance the chaos within the service or influence the culture within the team?
   a. *Tell me about the people / organisational factors which might influence this balance or culture*

14. Is there anything else you would like me to understand about your experience of resilience as an intensivist within Critical Care in Wales?
Appendix 14: Interview schedules with amendments

Revised Interview Schedule (Jan 2017)

Before commencing interview revisit confidentiality and ensure the consent form is signed and the participant has read the information sheets.

Confirm preferred role terminology with participants: “I understand there are differing names given to roles within the profession of critical care consultants depending on background training (intensivist, anaesthetist, critical care consultant). Before we begin, can I confirm with you which term you would prefer me to use throughout the interview?"

If preference is not intensivist replace with preferred term throughout interview.

1. How would you describe your experience of working as a consultant intensivist within an Adult Critical Care Unit in South Wales?

2. What does it mean to you to be a good intensivist?
   a. When do you feel “I’ve done a good job”?
   b. Are there things you do to try to reduce the impact of work related stress / distress on patients’ / parents’ experiences.
   c. What do you think they notice / appreciate?

3. When you hear terms like ‘burnout’ or ‘post-traumatic stress’ is this something you can relate to in terms of the experiences of intensivists as a profession?

4. Thinking of particularly challenging situations in ICU, what do they tend to have in common?
   a. How have such experiences affected you (personally, emotionally and in work)?

5. What strategies do you use for managing the impact of particularly difficult days at work – both at work and outside of work?
   a. How do you keep going?

6. Are there any ways in which your approach to managing stress and distress have changed since you’ve worked as an intensivist?

7. Thinking about some of the most demanding / challenging situations you have had to manage, how has this changed your relationship to work / how you now respond, if at all?

8. How does work impact upon your relationships and life outside of work, if at all?

9. How do your relationships and life outside of work support your resilience, if at all?

Resilience in Critical Care Consultants: Interview Schedule Version 2. 05/01/2017/2016
Josie Allen
10. Thinking about your personal experiences throughout your life, how have these life experiences contributed to your resilience, if at all?

11. Tell me about your experience of your working hours and how this impacts upon wellbeing.

12. What do you notice about how your colleagues experience and manage stress?

13. If you could change one thing about you or your role that would help buffer the impact of its demands, what would it be?

14. What do you think are the factors which counteract any chaos within the service?

15. Tell me about the people or organisational factors which might influence the culture within the service?

16. Is there anything else you would like me to understand about your experience of resilience as an intensivist within Critical Care in Wales?

Additional Questions

Connecting vs Distancing

From my initial analysis, what I am starting to find is an idea around differing perspectives of the degree to which it is helpful to connect to patients and families vs distancing oneself.

How do you reconcile your connection whilst still doing your job? Can you connect but get to stay safe?

What are your thoughts about this from your perspective of colleagues and unfamiliarity?

This has come up before - how do you know you have made the transition to being comfortable?

Balancing Home + Work Life

How do you switch off?

Managing Stress

Resilience in Critical Care Consultants: Debrief Form Version 2: 05/01/2017
Josie Allen
Second Revision of Interview Schedule (February 2017)

Before commencing interview revisit confidentiality and ensure the consent form is signed and the participant has read the information sheets.

Confirm preferred role terminology with participants: “I understand there are differing names given to roles within the profession of critical care consultants depending on background training (intensivist, anaesthetist, critical care consultant). Before we begin, can I confirm with you which term you would prefer me to use throughout the interview?”

If preference is not intensivist replace with preferred term throughout interview.

1. How would you describe your experience of working as a consultant intensivist within an Adult Critical Care Unit in South Wales?

2. Thinking of particularly challenging situations in ICU, what do they tend to have in common?
   a. How have such experiences affected you (personally, emotionally and in work)?

3. What strategies do you use for managing the impact of particularly difficult days at work – both at work and outside of work?
   a. How do you keep going?

4. From my initial analysis, I have noticed variations in intensivists’ experiences of stress within the role. What are your thoughts or observations about this?
   a. Consider the culture
   b. Consider whether it is helpful or not to convince oneself its ‘okay’
   c. Consider habituation – getting used to the work

5. From the analysis what I am starting to find is an idea around differing perspectives of the degree to which it is helpful to connect to patients and families versus distancing oneself. What, if any, are your thoughts about this from your perspective or observations of colleagues?
   a. Consider quote about empathy as dangerous
   b. What is it like to connect to a patient and family?
   c. How do you keep going in the face of distress around you?

6. I am interested that intensivists are talking about a vulnerability both in themselves and in patients / families.
   a. What have you noticed, if anything, about vulnerability in self and others?
b. What impact does CCU have on your vulnerability?

c. Is it death or your own vulnerability which is difficult to deal with?

7. What do you think intensivists fear?

8. How do you navigate being with patients and being aware of your own vulnerability and still stay okay?

9. How do you deal with the demand of the role and still stay okay?
   a. How do you hold all that the role entails in mind and not fall apart?

10. Can you tell me a bit about your experience of the intensivist culture?
    a. I have noticed a strong non-blaming culture within intensivists. Is this something you recognise?

11. How do your relationships both at work and at home support your resilience, if at all?

12. What do you notice about how your colleagues experience and manage stress?

13. Tell me about the people or organisational factors which might influence the culture within the service?
    a. How do these factors impact on your resilience / stress?

14. Is there anything else you would like me to understand about your experience of resilience as an intensivist within Critical Care in Wales?
Appendix 15: Confidentiality agreement between researcher and transcriber

ABJ UK TRANSCRIPTION SERVICES
CONFIDENTIALITY AGREEMENT

This confidentiality agreement has been prepared and is being distributed on behalf of ABJ TRANSCRIPTION SERVICES ("the Service Provider") who acknowledge and accept the terms and conditions of this Confidentiality Agreement.

This agreement is made between the Service Provider and Josephine Allen
The Service Provider agrees that they shall not during the course of the contract and at all times (without limit) after the termination thereof (howsoever the same is determined), either directly or indirectly, make use of, or disclose (to a third person, company, firm, business entity or other organization whatsoever) or exploit for their own purposes or for those of any other person, company, firm, business entity or other organization whatsoever, any trade secrets or Confidential Information (as defined below) relating or belonging to my client or any of their clients.
Confidential Information includes, but is not limited to, any information relating to clients (including clients with whom my client is negotiating), client lists or requirements, charge out rates or charging structures, marketing information, intellectual property, business plans or dealings, precedents, technical data, financial information and plans, any document marked "confidential" or any information which the Service Provider has been told is confidential or which might reasonably be expected to be regarded as confidential, or any information which has been given to my client in confidence by clients, suppliers or other persons.
The obligations contained in this provision shall not apply:
To any information or knowledge, which may subsequently come into the public domain, other than by way of unauthorised disclosure (whether by the Service Provider or by a third party);
To any act of the Service Provider in the proper performance of their contractual duties where such use or disclosure has been properly authorised by my client;
To any information which the Service Provider is required to disclose in accordance with an order of a Court of competent jurisdiction.
In complying with these confidentiality obligations the Service Provider must refrain from discussing, reading or disclosing Confidential Information openly in public areas, such as, on trains, buses and airplanes, on mobile telephones, or in restaurants. If the Service Provider is in any doubt as to the extent and/or the ambit of these obligations they should, in the first instance address any queries to my client using the contact details supplied at the time of booking, either in writing (via email) or via telephone contact.
The Service Provider acknowledges that the client reserves the right to terminate any contract should they become aware of any unauthorized use of the Confidential Information.

Signed
Mrs Bridget Postlethwaite
Dated 6th January 2017
Appendix 16: Transcript passages with initial (lower case and black) and focused (CAPITAL and red) coding; including second researcher codes (purple) to enhance reliability.

Alex: Transcript excerpt

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Commented (JA141): Describing the impact of stress on the interview's topic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex</td>
<td>And again, like I say, I am interested in this and we see trainees who get quite challenged or stressed. In fact, I think it is a highly stressful environment when you come into it.</td>
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<td>done three years of medicine before I started in Intensive Care and it is a difficult environment and I think it's important to remember that.</td>
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<td></td>
<td>So I think part of it is experience and time, it's just the daily routine.</td>
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<td></td>
<td>Talking to colleagues is probably best, I think, you'll talk about problems. And I think as long as you feel confident that you've made a good decision and you're giving the right treatment, then actually whether they get better or they die is immaterial. That sounds a bit callous, doesn't it? It's not immaterial, of course it's not, we're here to make people better, but actually, you know from the outset that not everyone is going to get better, but as long as you've given the best possible treatment, I can reconcile it easily that they just didn't get better and that wasn't my fault. And that's coming.</td>
</tr>
<tr>
<td></td>
<td>Anaesthesia, the mentality is very different.</td>
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<td></td>
<td>So Anaesthesia I found quite stressful and I probably couldn't have done that in a career, because you take very well people and make them very sick, and that's fault. Actually, it's not my fault they've come to me, it's not my fault the surgeon messed up in theatre, it's not my fault that something's gone wrong or someone missed a diagnosis, and actually, you're just there to try and do your best, to get them better from something.</td>
</tr>
<tr>
<td>Interviewer</td>
<td>So that mindset, that philosophy is really helpful for you when you relate to other people and when you reconcile it with yourself?</td>
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<tr>
<td>Alex</td>
<td>Yeah, they came to you very sick and you’ll do your utmost to get them better, the fact that the best didn’t work, that’s an expected outcome and that’s not my work and death is an expected outcome in treating a sick patient.</td>
</tr>
<tr>
<td>Interviewer</td>
<td>So when patients are awake, or families, what do you think they notice or approve about you and the work that you do?</td>
</tr>
<tr>
<td>Alex</td>
<td>Well, we have to get feedback, I am empathetic, or I’d like to think I am, but what think and what the reality is are often two different things and I’m mindful of that I’d like to think I was empathetic. What they go through, the families sitting by a bedside day in and day out, I’ve never been through that, so I can only imagine it’s like to sit here for 12 hours and go home and have phone calls, ‘How’s John doing?’ No sleep and the worry and waking up hoping. So I can imagine what it would be like, so I just like to think that we know it, we’re here to care for the families as well as the patients, and sometimes we can’t get the patients better, but actual kind word or a hand on the shoulder is just, hopefully, the best you can do for your family.</td>
</tr>
<tr>
<td>Commented [JA161]: Doing your utmost to get patients better when they come to you very sick.</td>
<td></td>
</tr>
<tr>
<td>Commented [JA162]: Reconciling fault when your best didn’t work and death is an expected outcome in treating a sick patient.</td>
<td></td>
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<tr>
<td>Commented [JA163]: RECONCILING FAULT &amp; BLAME AND ACCEPTING AN EXPECTED DEATH</td>
<td></td>
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<tr>
<td>Commented [JA164]: Having to get feedback from families.</td>
<td></td>
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<tr>
<td>Commented [JA165]: Perceiving self as empathetic.</td>
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<tr>
<td>Commented [JA166]: Being mindful that your perceptions of self and the reality are often two different things.</td>
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<tr>
<td>Commented [JA167]: DIFFERING INTERNAL PERCEPTION OF EMPATHY IN THE REALITY OF HOW EXPERIENCED.</td>
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<tr>
<td>Commented [JA168]: Like to think one is empathetic.</td>
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<tr>
<td>Commented [JA169]: Recognising that has been through what the families do, in sitting by a bedside day in day out.</td>
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</tr>
<tr>
<td>Commented [JA170]: Imagining what it would be like for families to sit in the ICU for 12 hours, go home and have phone calls about their loved ones.</td>
<td></td>
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<tr>
<td>Commented [JA171]: Imagining families to have no sleep, to worry and wake up hoping.</td>
<td></td>
</tr>
<tr>
<td>Commented [JA172]: Being able to imagine what its like for families, thinking consultants know it.</td>
<td></td>
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<tr>
<td>Commented [JA173]: Considering role as in part being there to care for families as well as the patients.</td>
<td></td>
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<tr>
<td>Commented [JA174]: Unable to get patients better sometimes.</td>
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<tr>
<td>Commented [JA175]: Hoping that a kind word or a hand on the shoulder is the least a consultant can do for a family.</td>
<td></td>
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<tr>
<td>Commented [JA176]: VALUING AND STRIVING TO SHOW EMPATHY TO A FAMILY.</td>
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<tr>
<td>Commented [JA177]: Evaluating communication as really important.</td>
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<tr>
<td>Commented [JA178]: Evaluating there to be nothing worse than not knowing the result of an investigation.</td>
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<tr>
<td>Commented [JA179]: Going out of your way to find and spend time with a family event when you don’t feel like it.</td>
<td></td>
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<tr>
<td>Interviewer</td>
<td>Just have a quick chat at the bedside, I think that goes quite a long way. It's just being kind really, isn't it?</td>
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<tr>
<td>Alex</td>
<td>Yeah, and approachable, I think, and we're quite hands-on on the shop floor 24 hours a day and making the time to just update a family, or even joke with them, even though they're going through a bad time, you can still lighten up their day, sounds a bit strange, maybe.</td>
</tr>
<tr>
<td>Interviewer</td>
<td>Not at all. It sounds like how a lot of human beings cope, or see some light in the world.</td>
</tr>
<tr>
<td>Alex</td>
<td>Yeah, but I think it's much easier to care for the family, in some ways, and be sympathetic, because you can see what they're going through, and the patient is asleep, you actually can see the distress, so it's easier to do that and it's not a challenge.</td>
</tr>
<tr>
<td>Interviewer</td>
<td>So when you hear terms like burnout or post-traumatic stress, is that something you can relate to in terms of the experiences of Intensive Consultants in critical care as a profession?</td>
</tr>
</tbody>
</table>
Alex

Definitely, yeah. I'm not sure about PTSD. I don't know anyone who's suffered that certainly haven't. I think in terms of PTSD, I suppose if I make a mistake or things don't go right, you learn to move on and put it behind you. I don't dwell too much on the past and just learn from it, so it's not something I'd ruminate on for years. I think it's just an experience, someone who's made mistakes, so that's the kind of philosophy that we take, or I will take, and you discuss it with colleagues. I guess I've been lucky in my career so I don't think I've ever done anything too drastic! (laughingly) Because I'm not sure how I'd cope if something really bad went wrong and you felt really responsible and you've missed something really serious. May I'm just blissfully unaware or I've put it away somewhere.

But in terms of the burnout, yeah, I do a burnout questionnaire once a year and what I'm like. Yeah, it's a difficult one. I've worked as a consultant for six years and actually my motivation within this area, actually, it feels like the unit is just down a plug hole, really. There's a constant increase in the workload from other areas that are uncontrollable within the unit, so they want to do this service or that service, and you kind of burst and the clinical work isn't the most stressful part, it's the beds, rather than actually looking after the patients, and where you're going to the next patient, and that's the risk you're intending to assume. And that's a common theme amongst colleagues that I talk to, and actually keeping the motivation to improve the service, to put effort into making it better, can become quite difficult. I would classify that as kind of burnout really, where you just think, 'Well, I'll come and do my job,' whereas you have to give yourself a shake, to think, 'That's not an attitude,' because if everyone thought like that then it really would just fall apart.
Page 8: [15] Commented (JA160) Josie Allen 30/01/2017 17:27:00
QUESTIONING FAULT WHEN PATIENTS GET SICK, FEELING AT FAULT IN ANAESTHESIA ROLE

Page 11: [16] Commented (JA186) Josie Allen 30/01/2017 18:04:00
ADOPTING A PHILOSOPHY OF PUTTING MISTAKES BEHIND YOU AND LEARNING FROM IT, OF NOT DWELLING, NOT RUMINATING

Page 11: [17] Commented (JA202) Josie Allen 20/01/2017 14:07:00
Sharing a collective philosophy of learning from the past and viewing mistakes as an experience.

Page 11: [18] Commented (JA203) Josie Allen 30/01/2017 18:05:00
SHARING DIFFICULT EXPERIENCES WITH COLLEAGUES

Page 11: [19] Commented (JA204) Josie Allen 20/01/2017 14:08:00
Considering self as lucky in career as never done anything too drastic

Page 11: [20] Commented (JA205) Josie Allen 20/01/2017 14:08:00
Expressing uncertainty about how would cope if something really bad went wrong

Page 11: [21] Commented (JA206) Josie Allen 20/01/2017 14:09:00
Expressing uncertainty in how would cope if felt responsible for something going wrong having missed something really serious

Page 11: [22] Commented (JA207) Josie Allen 20/01/2017 14:09:00
Wondering whether self is just blissfully unaware, or has repressed experiences / feelings.

Page 11: [23] Commented (JA208) Josie Allen 30/01/2017 18:05:00
QUESTIONING HOW I WOULD COPE IF SOMETHING WENT SERIOUSLY WRONG, IF I FELT RESPONSIBLE; PONDERING DENIAL OF EMOTIONAL EXPERIENCE

Recognising burnout in the profession.

Page 11: [25] Commented (JA210) Josie Allen 20/01/2017 14:11:00
Completing a questionnaire on burnout annually.

Page 11: [26] Commented (JA211) Josie Allen 03/02/2017 10:05:00
COMPLETING A QUESTIONNAIRE TO GAIN KNOWLEDGE ABOUT OWN INTERNAL WORLD IN RELATION TO BURNOUT

Page 11: [27] Commented (JA213) Josie Allen 20/01/2017 14:12:00
Explaining length of time working as a consultant; 6 years

Page 11: [28] Commented (JA214) Josie Allen 20/01/2017 14:12:00
Expressing declining motivation within this area; describing the unit as going down a plug hole

Page 11: [29] Commented (JA215) Josie Allen 03/02/2017 16:09:00
Considering the patient's recovery or death as immaterial providing you feel confident in your decisions and treatment.

HAVING CONFIDENCE IN CLINICAL DECISIONS; PERCEIVING DEATH AS IMMATERIAL IF HAVE CONFIDENCE IN CLINICAL DECISIONS.

Questioning whether statement about death being immaterial is callous

Correcting self; stating death is not immaterial; being here to make people better

Recognising that not all patients will recover

Reconciling patient outcome easily as long as one has given the best possible treatment

Reconciling self that the patient just didn’t get better; Relinquishing blame and fault

UNDERSTANDING AND ACCEPTING DEATH IS INEVITABLE FOR SOME PATIENTS; RECONCILING PATIENT DEATHS AS NOT MY FAULT AS LONG AS GIVEN THE BEST TREATMENT POSSIBLE

Perceiving professional background in Anesthesia as holding a different mentality to enable to recognise a patient's death is not my fault.

Expressing stress in Anaesthesia resulting in not being able to do this as a career

Experiencing self at fault for taking well people and making them sick in Anesthesia.

Relinquishing fault & blame; Allocating fault elsewhere towards the reason they are in surgery which has occurred before they have gotten to you, the surgeons mistake, someone missing a diagnosis.

Something about relinquishing blame as things have already gone wrong before get to you?

Challenging own thoughts: not at fault but rather there to try and do your best and get them better
DECLINING MOTIVATION OVER TIME

Experiencing an uncontrollable pressures increasing workload from within the unit

Page 11: [31] Commented (JA217)  Josie Allen  20/01/2017 14:16:00
Expressing a sense that will burst due to increased demands for doing different services

Page 11: [32] Commented (JA218)  Josie Allen  03/02/2017 10:10:00
BURSTING AT THE CONTINUAL INCREASE IN WORKLOAD OF UNCONTROLABLE PRESSURES OF SERVICE DEVELOPMENT

Page 11: [33] Commented (JA219)  Josie Allen  20/01/2017 14:20:00
Identifying the lack of beds as the most stressful part rather than clinical work, looking after patients

Page 11: [34] Commented (JA220)  Josie Allen  20/01/2017 14:21:00
Assuming the risk of where to put the next patient

Page 11: [35] Commented (JA221)  Josie Allen  03/02/2017 10:11:00
IDENTIFYING BED MANAGEMENT AS THE MOST STRESSFUL ASPECT OF THE JOB; ASSUMING THE RISK OF MANAGING WHERE TO PUT THE NEXT PATIENT

Page 11: [36] Commented (JA222)  Josie Allen  20/01/2017 14:24:00
Identifying a collective stress in the lack of beds and assuming the risk of where to put the next patient.

Page 11: [37] Commented (JA223)  Josie Allen  20/01/2017 14:24:00
Struggling to find the motivation to put in the effort to improve the service

Page 11: [38] Commented (JA224)  Josie Allen  20/01/2017 14:25:00
Classifying burnout as a lack of motivation

Considering burnout to be thinking 'I'll just do my job

Page 11: [40] Commented (JA226)  Josie Allen  03/02/2017 10:14:00
JUDGING A COMMON PRESENTATION OF BURNOUT IN CONSULTANTS AS A LOSS OF MOTIVATION TO IMPROVE THE SERVICE

Page 11: [41] Commented (JA227)  Josie Allen  20/01/2017 14:29:00
Shaking self to think that's not the attitude

Page 11: [42] Commented (JA228)  Josie Allen  20/01/2017 14:30:00
Predicting that the service would just fall apart if all everyone just did their job and lost motivation to improve the unit.

Page 11: [43] Commented (JA229)  Josie Allen  03/02/2017 10:20:00
SHAKING SELF OUT OF A BURNOUT RESPONSE OF A LOSS OF MOTIVATION TO IMPROVE THE SERVICE; PREDICTING THE COLLAPSE OF THE SERVICE IF ALL CONSULTANTS LOSE MOTIVATION
Dylan: Transcript excerpt

which is largely summarized by us just getting bigger too quickly. And a Clinical Director, who again was very junior, working alongside me, who I felt we got on together and I understood what he needed to have help. So I think it was kind of a combination of things that prompted me to step forward with that but was early on and I have to say I have found it hard. I have found two years very tough in a no prior management - real credible management experience in that area at all, so much at the bottom of the learning curve and straight up in an era - in a phase in our history here, which is quite - it's quite high pressured. And albeit that's looking back in retrospect because I haven't been here for the 10 or 15 years that all my colleagues have but, you know, listening to the story and trying to understand it looking back over the last two years, I think we are going through a very difficult at the moment and I - yeah, it has been hard actually.

Interviewer: So that learning curve's been really tough over the last couple of years?

Dylan: Yes, it has, definitely.

Interviewer: So what does it mean to you to be a good interview, to do your job well?

Dylan: The core of it is about a patient. So it's always just the core things you would do you would like anyone in healthcare to say you were a servant (s) to patients or surrounding your... you know, occupying your focus and your mind and your purpose constantly referencing it back to people, patients. It's what the core of anyone working in healthcare is; so that for me is a very firm foundation and, you know, directly surrounding that is the specific skills that make you a doctor, so...
Josephine Allen  
Doctoral Thesis: DClinPsy

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**Interviewer**

And what’s that like coming across those people who don’t – you don’t feel quite understand the front line aspect of it?

**Dylan**

I guess the ways I’ve kind of rationalized it for myself is just understanding hum to be honest. (laughs) So I don’t – I never interpret that as, which I do see the hostility amongst, particularly doctors actually, for management. I don’t really feel that hostility at all. I think they are just victims of normal human behaviour in the situation that they find themselves in their daily job. And, you know, why would accountant really have that focus when they are completing – their task is to complete a spreadsheet by the end of the week. So, it’s not a – it doesn’t manifest kind of anger against anyone in particular, it’s just frustration I think with the syst and yeah, I guess that’s probably the...

**INTERVIEW PAUSED DUE TO CLINICAL CONVERSATION**
Dylan: Yes, I guess it's just having a very, very simple way.

Interviewer: [A116]: Having a fall back foundation question.

Dylan: Just a fall back foundation question to ask yourself when it's all kind of, you are losing perspective and you just ask why? So for me that's very important; and it doesn't sometimes make it easier I have to say. In fact it sometimes makes it harder because, yeah, if you find yourself not able to fulfill that why as you would want to think that's where a lot of the… a lot of the stress comes from actually.

Interviewer: Right, specifically relating to patients or relating to…?

Dylan: Yeah, always relating to patients and that maybe a population of patients or maybe one patient where you – you feel for whatever reason that they are not getting the treatment they should do and you are accountable for it and there's nothing you can do about it. I think that's – that's really what it fundamentally comes down to and what's important.

Interviewer: So how do you… what… when do you go home at the end of the day and feel you done a good job?

Commented [A117]: Asking self 'why' when one is losing perspective.

Commented [V118]: Wow, this is great stuff from a perspective point of view – I'm having to refrain from conceptualising this within ACT – values, value based goals etc.

Commented [A119]: Citing importance to ask oneself 'why'.

Commented [A120]: Reflecting that asking self 'why' does not always make things easier.

Commented [A121]: Reflecting that asking oneself why sometimes makes things harder.

Commented [A122]: Reflecting that asking self why is sometimes making things harder.

Commented [A123]: Reflecting that finding oneself not being able to fulfill the answer to why in the way one would want to can make work harder.

Commented [A124]: Reflecting that the a lot of the stress comes from not being able to fulfill the answer to 'why' in the way one would want to.

Commented [A125]: Keeping one core focus on patients.

Commented [A126]: Judging that patients are not getting what they should do.

Commented [V128]: This is really interesting, when you have a strong sense of what is 'right' and what is what patients deserve, and you take responsibility for this, there is a disconnect that feels uncomfortable.

Commented [A129]: Being accountable for a patient not getting what they should and feeling powerless to change this.

Commented [A130]: Considering the fundamental challenge of the interviewee being accountable for a patient not receiving the care they feel they should and being powerless to change it.

Commented [A131]: Feeling accountable yet helpless to meet the needs of a patient.
Dylan: (pause) I think, so to know you've done a good job; yes, so you have a good feeling inside. You've had some pleasure and I guess what that is, is that some change for the benefit of a patient has happened as a direct result of what you group of people around you have pulled together to achieve. And I guess that from a feeling that that would not have happened unless me working with those people has made that happen. So yeah, I guess that's what makes you feel good.

You know, I wouldn't articulate that on a daily basis like that but that probably it boils down to is, I've left today and everything is slightly better because I was there. The values that you are part of a process that worked and I guess that probably ties in to the previous answer of what makes you go home and feel better.

And that's where actually when you turn up in that system you may not perform, the team may not perform and actually either someone has come to someone or it's just — it's not achieved what you thought the potential that system could have achieved, or the team could have achieved, or you could have achieved, particularly when there's just simple, silly factors that got in the way of that.

Interviewer: So if you're having one of those days perhaps, and you are feeling a bit frustrated, stressed, are there any things that you try and do to reduce the impact of your emotional reactions on patients or families?

Dylan: So things that I do to negate my stress? Well specifically to not impact on family, would say any direct human contact actually, so that would be patients, families, anyone you come into contact with — so other healthcare workers — so I think just step aside, looking from outside in to see how other people deal with that. I think...
of the ugliest things you can see is when people are taking it out on other people and that may be treating patients badly or not performing how they should. It's clinical and you can see that that is manifested not out of malice, but out of pressure to rationalize your emotions. So saying, well I feel the way I do because I'm tired and frustrated. Yeah, so it's about having some core traits that you think are very important to have at work. So you know, I couldn't -- everyone will have their threshold presumably if pushed hard enough, but being very mindful, to use a term that's been used quite a lot, but being very aware of your -- what behaviours are the absolute pillars that you should stick to at work. So, you know, I never try to be rude to anybody. And the usual thing, you try to speak to people like you want to be spoken to and you try to trust, honesty, all of those things are very important, core traits that actually if you'd never, ever want to breach. And I think those are fairly well grounded with the assumption that if you judge whether that's life becomes much more simple then and dealing with stress and all the rest of it becomes a lot easier. But nevertheless you may have a conversation with someone and are thinking, God, I'd rather be anywhere else than this -- but that's about, I think that's summed up with professionalism isn't it really? That's what sums up professionalism, it's how you behave when internally you perhaps don't feel like that. But...
Endeavouring to listen to and understand the story of the history of ICU and comparing it with own experience of ICU over the past 2 years

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