Characteristics of the Contemporary Intensivist: A Qualitative Study

Keywords: Intensive care medicine; Doctors; Thematic framework analysis; Personality traits; Interview

Abstract

Background: Intensive care professionals work together within a high-acuity high-stress environment and develop unique clinical and human skill sets within the specialty. The manner in which medical leadership acts, responds, and is understood by those around them is an important component of optimising healthcare. The aim of this study was to explore, qualify, and define the self-perceived attributes of senior doctors working in intensive care (Intensivists), and construct 'Intensivist personas' that might provide useful insight for the entire healthcare team.

Methods: Using a prospective qualitative design, this study involved face-to-face interviews with 19 intensivists who each had more than four year’s clinical experience. Participants were asked their perceptions of the typical personality traits of a ‘furnishing’ Intensivist and how they felt they were viewed by others outside their specialty. Interviews were audio recorded, transcribed and attributes were coded using a thematic framework analysis of each transcript using NVivo software. Personas that might represent the contemporary Intensivist were then constructed based on the themes that emerged.

Results: More than 700 pages of coded data were extracted from the transcripts. Six personas were built according to how intensivists saw themselves: the Fixer; the Retriever; the Diplomat; the Negotiator; the Pragmatist; and the Duck. An additional three personas were created relating to how they perceived they were viewed by others: the Superhero; the Naysayer; and the Dictator.

Conclusion: This study describes the self-perceived personality traits of modern-day Intensivists and in doing so, adds to the scarce qualitative literature available. Understanding these attributes is important for all who work in intensive care, including nurses who are an integral part of healthcare service delivery.

Background

The practice of medicine goes back to ancient times and was historically a broad-based science. In modern medicine, there is increasing specialisation of practice in line with the massive expansion of knowledge, and the advanced skill set required to deal with new technology. As a result, our human understanding of ‘what it is to be a doctor’ in the 21st Century (Common Era) is rapidly evolving, with over 1.5 million new medical-related studies indexed annually on search engines such as Pubmed [1].

Intensive care is a field of medicine devoted to managing complex life-threatening illness. It has its origins in the mid-nineteenth century Crimean War, when Florence Nightingale tended to those soldiers worst injured in an area geographically closest to her nursing station. These patients were closely monitored and attended to quickly in the event of clinical deterioration [2]. This ‘collective’ model of acute care (cohorting the sickest patients to where most of the resources are) was further established in the 1950s in response to the global poliomyelitis epidemic. Medical centres throughout the world established respiratory ‘intensive care units’ (ICUs) to monitor and manage patients requiring positive and negative pressure ventilation. Anaesthetists were frequently involved in the development of these services as they were seen to be the experts in airway intubation [2], ventilation and resuscitation. In the years that followed, these respiratory or ‘general’ ICUs devolved into the distinct sub-specialties seen today in some countries, based on the nature and case-mix of the hospital. For example, separate ICUs for surgical, burns, cardiac, paediatric and neonatal patients.

As the discipline of Intensive Care matured, specialist doctors from other, often diverse, backgrounds also sub-specialised in intensive care medicine. Part of this involved the establishment, development and maturation of professional societies which defined the role of the ‘Intensivist’, including the core competencies and training required. In Australia and Aotearoa New Zealand, the ‘newness’ of intensive care medicine as a specialty is reflected by the fact that the Australian and New Zealand Intensive Care Society (ANZICS) first met in 1975 [3], formalising training of Intensivists in 1976 with a specialist College becoming operational in December 2010 [4,5].

The key service elements of a modern general ICU are centred on the delivery of a number of highly invasive supportive therapies such as mechanical ventilation; renal replacement therapy; extracorporeal membrane oxygenation and monitoring [6], which are implemented through the coordination of a broad interprofessional team of doctors, nurses, allied health professionals and others. Modern-day Intensivists are correspondingly directly responsible for patients under their care in a relatively closed clinical system, with input from other specialties as required [4], the so-called “closed” model of intensive care.

Although present-day doctors represent a similar cohort in terms of the entrance criteria for medical school, and receive broadly
similar pre-licensure training, there is an abundance of literature dating back to the 1960s suggesting that personality stereotypes exist for some medical specialties [7,8]. Anaesthesia, for example, has been reported to attract people who are more self-sufficient and extroverted compared to doctors in general practice [9]; Psychiatrists have been characterised as possessing greater frustration tolerance, emotional maturity and stability than seen in other fields [10]; Surgeons have been found to be more tough-minded, resolute and unempathic compared to both anaesthetists and doctors in general practice [11]. These data are important, as the synergy of personality type with working environments has been shown to be significantly related to workplace resilience [12].

A persona describes a particular type of character that a person seems to have, often different from the real or private character that person has [13]. It is a fictional individual whose characteristics may be derived as a composite of a number of different real people [14]. As the field of intensive care medicine is relatively new, there is little published data related to the self-perceived personality traits of doctors working in the domain. Creating a shared understanding of these frames would be useful to all who work within the intensive care healthcare service delivery. Based on the personal reflections of a sample of Intensivists, the aims of this study was to explore, qualify and define the attributes of doctors working in intensive care in order to construct the persona or personas of the contemporary Intensivist.

Methods

Research design and setting

This study used a prospective qualitative design to explore the research question of what characteristics define the attributes of doctors working in intensive care. To answer this, the primary objectives were to

1. Interview a group of experienced Intensivists
2. Analyse their responses and construct a persona or personas of the ‘typical’ Intensivist.

A once-off face-to-face interview was conducted on-site at each participant’s respective hospital during non-clinical time in a quiet location adjacent to the ICU. Ethical approval was granted by Sir Charles Gairdner Hospital HREC (Lead site: RGS0794); the Austin Hospital/HREC/18/OTHER/14); Hadassah University Hospital (0313-18HMO). All participants provided informed written consent prior to participating.

An example of the specific interview questions relating to Intensivists’ perception of the characteristics of the modern-day Intensivist was:

“Can you describe what you think are the attributes and typical personality traits of a ‘flourishing’ Intensivist?”

and “How do you think those professionals outside of intensive care view the stereotype of the contemporary Intensivist?”

Participants

Intensivists from two countries (Australia and Israel) who had worked in the ICU specialty for more than four years were considered for inclusion in the study cohort. They were approached in-person by the site investigator and provided informed written consent prior to participating.

Data collection

Data collection was undertaken by three researchers (Intensivists [CK and PVvH], and non-Intensivist [DD]) who all had experience in qualitative research methods. Interview data was audio-recorded and transcribed. Transcripts were edited by participants for accuracy, and then returned to one investigator (DD) who entered them into the dataset as de-identifiable data. Data saturation was reached after approximately 60% of the population of Intensivists had been interviewed at the first site (in Israel), suggesting that approximately 15-18 participants would provide thematic sufficiency.

Data analysis

NVivo software (Version 12, 2018 software; QRS Pty Ltd., Victoria, Australia) was used to undertake a thematic framework analysis. Codes were initially generated by two investigators (DD and RK) who reviewed two random transcripts independently. One of these researchers (RK) had not undertaken any interviews and was not an Intensivist, which ensured the reflexivity of the analysis. The final code-book was built with the consensus of all investigators who subsequently coded all manuscripts. Personas were created from the themes and subthemes that emerged from coding; literal quotations were selected to support these constructs.

Results

During 2018, 19 hour-long interviews were carried out at an Israeli institution (n=6) and two Australian institutions (n= 6 and 7 respectively), with one Australian Intensivist declining to participate. Six personas were constructed around the self-perceived attributes that defined the Intensivist.

The Fixer (Table 1): Described as one who applied technical competence to make patients better; someone confident who worked well under pressure.

The Retriever (Table 2): Described as one who was able to take the sickest of patients and restore them to better health.

The Diplomat (Table 3): Described as one who was able to navigate interpersonal relationships successfully in order to facilitate best patient care.

The Negotiator (Table 4): Described as one who was a steadfast patient advocate in order to facilitate best patient care.

The Pragmatist (Table 5): Described as one who was realistic and practical in the face of difficult conversations and uncertainty.

The Duck (Table 6): Described as one who appeared consistently calm in a crisis whilst perhaps figuratively paddling furiously beneath the water to achieve a good outcome.

A further 3 personas were constructed around reported attributes which the Intensivists considered were the external perception of those outside of the Intensive Care Medicine specialty (Table 7). These were the Super-hero; the Naysayer; and the Dictator.
"It is important that you have to use your brain as well, as, you know... anyone can stand there and just run through algorithms, but the important thing is that you need to stand there, taking all the visual cues in, and all the things are happening, and think about other things. The team is good. The team will run a resus without you doing anything, so... to have that ability to step away a little bit, but at the same time delegate tasks."

"...as an Intensivist you sort of want the skills to manage any crisis situation... You know, I’m not going to take someone to theatre and do a laparotomy, but something in the unit, I feel like we should be able to manage."

"I think you do need to be able to function under pressure."

"You have to be able to handle stress... and handle your own anxiety."

"You need to be extremely flexible and have an ability to cope with very unpredictable work."

"I think you have to really like working with people and challenging communication because you’ve really got to be sort of... quite a ‘Diplomat’ working with all of the other... like the surgeons and the other departments and things, and also with the family members - family members of patients."

"...compassionate to the foibles and weaknesses of the human colleagues; professional colleagues and compassion to the many different pathways that their patients have."

"You’ve got to laugh at yourself. And you’ve got to laugh at the behaviours we find ourselves doing over and over again. Like joking with my nurses, we’ve got one patient who’s got two central lines, and a trialysis catheter in, and I said, ‘I’ve never met an ICU nurse that isn’t happy with more lumens, but I think 10 lumens is probably enough, and we could do with a few less’..."
Characteristics of the Contemporary Intensivist: A Qualitative Study.

Table 4: Persona 4: The negotiator.

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<thead>
<tr>
<th>Verbatim example</th>
<th>Attributes</th>
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<tr>
<td><em>I also think that you have to appreciate that a lot of our work is a negotiation. And that a lot of emotional energy is required and that you can’t force other people to do what you want them to do.</em></td>
<td>Good Communicator</td>
<td><em>I think that the biggest thing is that you have to be a communicator. I said to my [partner], I deal with people… on any given day… I deal with, if I’m on, somewhere around 150 people. I do the ward round; I catch two, sometimes three shifts of nurses, so we’re talking about 50 or 60 people; we’re talking to the registrars, another 10 or 15 people; then you talk to the surgeons; the physios; the PSA’s; all those sorts of people. We’re talking more than 100 people. And those people have to feel that I can lead them.</em></td>
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<td><em>I try to make a point of being very consistent… I try and be the same, if things are going well or if they’re not going well.</em></td>
<td>Good interpersonal navigator</td>
<td><em>I just navigate my way in between, keep things level and happy on all the sides, I think I managed to manoeuvre myself reasonably well in this regard, it is not always easy.</em></td>
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<td><em>Sometimes it does feel like we spend a lot of emotional energy… not looking horns with people, but trying to get people to do what we think is the right thing to do.</em></td>
<td>Tension diffuser</td>
<td><em>Sometimes it does feel like we spend a lot of emotional energy… not looking horns with people, but trying to get people to do what we think is the right thing to do.</em></td>
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Table 5: Persona 5: The pragmatist.

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<th>Verbatim example</th>
<th>Attributes</th>
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<tr>
<td><em>No one comes to work to hurt anyone, but sometimes bad things do happen.</em></td>
<td>Honest and realistic</td>
<td><em>I was the ‘bad guy’. I was presenting the things as the ‘evil Intensivist’, okay, I’m being straight, this is what this is.</em></td>
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<td><em>Diligent</em></td>
<td></td>
<td><em>I guess we’re sort of just generalists and I think we’re certainly seen and expected to work very hard within the hospital.</em></td>
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<td><em>Emotional capacity</em></td>
<td></td>
<td><em>…it’s not wrong to cry with a family, it’s not wrong to pray for a family. And I found something that I have done, but here in ICU, very few of us are able to cry with family members because it is seen as a sign of weakness. Maybe it is, maybe isn’t. I still feel that it’s okay to be human. I prefer to be human than to be a cold machine that’s looking after somebody’s loved one. And that’s obviously up to a point. One needs to keep the emotions in check.</em></td>
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<td>Resilient</td>
<td></td>
<td><em>[Need to] be resilient and have coping mechanisms of some description.</em></td>
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<td>Detachment</td>
<td></td>
<td><em>…if you’re going to get very stressed about a patient who is talking to you with a blood pressure of 70, and you’re going to struggle with somebody who’s really unwell, really, you’re going to torture yourself. So you have to be able to detach yourself from it. A bit. And I think some people can do that very well, and some people can’t.</em></td>
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<td>Poor memory for bad events</td>
<td></td>
<td><em>I find it hard to remember what happened at work last week and there are certain patients who for whatever reason kind of stick in your mind and events that stick in your mind, but a lot of the time when patients come back to visit, it’s really hard to remember who they were…</em></td>
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Table 6: Persona 6: The duck.

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<td><em>…A duck - looking calm on top but kicking hard underneath!</em></td>
<td>Calm</td>
<td><em>You have to “keep your head when everyone around you is losing theirs” to quote Kipling. You’ve got to stay calm, no matter how you feel. Because if you get angry overtly, then it’s a real problem. You have to stay calm.</em></td>
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<td>Consistent</td>
<td></td>
<td><em>I try to make a point of being very consistent... I try and be the same, if things are going well or if they’re not going well.</em></td>
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<td>Introverted and introspective</td>
<td></td>
<td><em>‘… I’m much more introspective, like most Intensivists are… Introverts try and make sense of it, and then only presented to the space when they feel safe and have processed it and packaged it to some extent… ’</em></td>
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Discussion

Perceptions of self (Tables 1-6)

When asked to describe the attributes and typical personality traits of a ‘flourishing’ Intensivist, one respondent began by saying, “I think it takes all sorts” and this statement summarises the data that emerged. We built nine personas from the attributes that Intensivists’ identified, either within themselves or in their intensive care colleagues. Six of these were constructed according to how they viewed themselves; three were assembled in line with how they imagined their specialty projected themselves outside of intensive care.

Intensive care doctors deal in high levels of patient illness acuity, and each persona perhaps reflects a unique facet of their daily life, including the responsibility of directing the provision of care. Intensivists are often leading a team as the last in a long line of defence trying to enhance survival and recovery for a patient. Working with their team, they may bring people back from the certainty of death to the possibility of survival (the Retriever persona). We can conjure up visions of care and consultation outside of the ICU, such as their attendance at Medical Emergency Team calls, their involvement in the triage of patients’ enroute from places external to hospital emergency departments; or from within the hospital, like operating theatres. Being both curious and sceptical of other’s decision making fits the uncertainty of being faced with an unknown patient in an unfamiliar non-ICU environment. It also allows for avoidance of cognitive biases in one’s own decision-making which is needed in order to function as this last line of defence [15]. Being adaptable and flexible in response to unexpected circumstances, in fact thriving in that atmosphere, like an ‘adrenaline junkie’, were key components of this persona.
Table 7: Personas those outsiders might perceive as the Intensivist.

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<th>Persona</th>
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<tr>
<td>The Super-hero</td>
<td>&quot;I think they think we need them. Because when we’re in trouble, these are the guys that go and pick up the pieces, particularly now with the new medical emergency teamwork. We do about 3000 medical emergency team calls, so like they need us. Like, ‘The patient is in trouble, call the Intensivists.’&quot;</td>
<td>Super-human</td>
<td>'I think that the overall perception is that we are the super-humans that can handle anything and that is something that needs to change. We are all human beings who feel emotions and get burnt out from feeling emotions too much, and we need avenues to express that.'</td>
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<td></td>
<td></td>
<td>Tough</td>
<td>'I personally feel that mainly it is toughness. We are supposed to be tough. We are supposed to be these tough doctors. We can see anything, cope with everything and it doesn’t matter what’s going on.'</td>
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<td>The Naysayer</td>
<td>‘...the people who say “No” a lot. They say, “No, you can’t come to a unit”; “No, you can’t do that operation”; “No, you can’t share our scarce resources.”’</td>
<td>Pessimist</td>
<td>‘...too often the only serious discussion… one of the serious discussions, is about end-of-life or directions of care. And I have no doubt that they may see us as being pessimists. You know, they’ve invested a lot, they know the patients better than us, and for someone to be told that we think that they’re actually dying, and that to pursue these things is probably not in the patient’s best interest… would be quite confronting. And I think that must be very difficult for them to hear that. And we could be wrong too. But that’s often where we come from.’</td>
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<td></td>
<td></td>
<td>Arrogant and aloof</td>
<td>'They might feel at times depending on how that’s presented or if we think, ‘Well how in hell did you let that happen?’ we might come across as being a bit arrogant? And aloof, removed in our little unit, with all of our equipment? So I think we are at risk of being seen as arrogant and aloof at times.'</td>
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<td>The Dictator</td>
<td>‘...at the same time there is an unnerving feeling that I’ve called the mechanic to fix the car but it is irritating me that I couldn’t fix it myself... now I can’t control the process anymore. They’ve taken the car, they’ve got it in their workshop, and they’re doing stuff to the car. I’m not sure I really wanted to do a paint job, and I’m not sure I really wanted to change the tyres... they feel unhappy. Because like, “What are you doing to my car?” “Well, you know, the tyres were bit flat and the door didn’t close properly, and he’s like but “Well, we were okay with that...” ’ ‘Yes, I know but it’s here and we saw that...’</td>
<td>Controlling</td>
<td>'Intensivists are control freaks, who want to control everything all of the time.'</td>
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Perhaps more optimistically, Intensivists also possess the expertise and technological arsenal to lead new solutions in the high acuity environment (the Fixer persona) to enhance patient survival or improve prognosis. This persona comprised sound clinical competence, strong technical skills with confidence and ability to undertake multiple tasks and make quick decisions under high levels of pressure.

Acknowledgment that the Intensivist does not function in isolation was a key attribute of the Fixer, whereby teamwork, and the ability to share in the celebration of success, were qualities identified.

The Intensivists recognized that they bring others along with them on the patient’s journey, sometimes willingly (the Diplomat persona) and sometimes under duress (the Negotiator persona). The features of the Diplomat included an ability to ‘read the room’ in difficult circumstances and remain grounded and compassionate. The Diplomat is happy to seek the advice of others, and able to laugh at their own idiosyncrasies. The most distinctive attribute of the Negotiator is the skill of communicating, and the ability to navigate and overcome interpersonal conflict and diffuse tension. This extended from interactions with co-workers in the ICU to interactions with patients, and family, and the other specialties with whom they worked.

Respondents commonly acknowledged that no matter how much quality care they provide, patients can still unpredictably live or die without rationalisation. The Pragmatist persona comprised those attributes of honesty, diligence and realism, which aligned with an ability to have a degree of detachment from emotional involvement and a poor memory for bad events.

Finally, at their best, Intensivists bestow both their care and training of others in a calm and consistent manner (the Duck). This persona represented more the manner in which they approached their craft rather than the craft itself. The analogy was that during crises, the Intensivist delivered coordinated care effortlessly as they glided across the water, and yet beneath the water, they were actually furiously paddling away. There is perhaps a piece of the Duck persona in each of the other personas.

Projected perceptions of others (Table 7)

At face value, the projected perceptions of others looking in at the specialty were somewhat at odds to the perceptions Intensivists had of themselves. On closer examination however, each of the three external personas could be seen as being equal and opposite to the other six self-perceived constructs, albeit viewed in somewhat of a negative light. For example, the ‘Super-hero’ Intensivist is seen to swoop in when a patient or colleague is in peril to save the day with super-human knowledge, calmness and strength of character that belies authority. These features might be equally represented as positive attributes in the characterisations of the Retriever and the Duck - although the weight of responsibility that the Super-hero persona conjoins up perhaps matches the burden of the unreasonable expectations placed upon them by others.

Likewise, characteristics of the Pragmatist in taking a realistic negative appraisal of the long-term outlook of patient care, and relaying these views honestly with a level of personal detachment and resilience, might be interpreted as reflecting a Naysayer persona - the interpretation of what is pessimistic versus what is realistic defining the
difference between the perspectives. The wide-angle lens of the Fixer affords a longitudinal view and broad oversight and understanding that might be viewed as arrogance in the ‘Dictator’ persona. Likewise, the emotional intelligence and skill in communicating, seen in the Diplomat and Negotiator respectively, might be represented in the Dictator with negative connotation as being aloof and controlling.

It remains unclear as to whether these described perceptions were derived from the responses Intensivists encountered in their present-day practice, or whether they were anecdotally derived from their years-in-training. No data was collected from people outside of the specialty to support or refute the perceptions held, including the nurses they worked with, as this was beyond the scope of the study.

With emerging literature related to the high rate of burnout within the intensive care domain [16-18], our findings have important implications in terms of the selection of, and entry into, the specialty by medical trainees. Before choosing the intensive care pathway, junior doctors should reflect deeply around their personal attributes as to whether they fit some of the personae described. Equally as important, during the selection of their trainees, training programmes should screen applicants for attributes accordingly. It should be acknowledged that some of these attributes, though not directly teachable, can nonetheless be deliberately cultivated so may have relevance even for current trainees/Intensivists. By having awareness of the cultural traits in senior Intensivists, it may also be desirable to select trainees differently for the creation of different or diverse future personae for Intensivists who continue to adapt to the ever-evolving sociotechnical field of intensive care medicine.

A strength of this study was that it sampled doctors from 3 sites in 2 countries who had been working in the field of Intensive care for a substantial length of time. Although some of those interviewed serviced rural areas as ‘retrievalists’, a limitation was that the study cohort was predominantly from urban adult intensive care centres within well-developed healthcare service delivery teams. We acknowledge that other personae and attributes may have surfaced from a sample that included both rural and paediatric Intensivists. There were also no interviews of people external to the specialty to substantiate the perceptions had by those outside the discipline as to the personae of the Intensivists, and this is both a limitation and a path for further study.

Conclusion

This study adds to the relatively scarce qualitative literature on the personality traits of doctors in modern-day medicine, providing specific self-reported insight into the intensive care specialty. Nine personae were constructed, and no one of these stood alone as the ultimate definitive identity; neither was one specific persona necessarily mutually exclusive of another. The contemporary view of the Intensivist is perhaps better represented as a combination of all of the nine described. The perception of others working in the field related to these personas is a future direction of this work.

References