

## Nursing in the 21<sup>st</sup> Century – Challenging its values and roles

Judith C Bruce, PhD

Professor and Head, School of Therapeutic Sciences, University of the Witwatersrand

Correspondence to: Prof Judith Bruce, email: Judith.bruce@wits.ac.za

Third Henrietta Stockdale Memorial Lecture, delivered by Judith Bruce, Professor and Head of the School of Therapeutic Sciences, University of the Witwatersrand, Johannesburg.

In my lecture, entitled “*Nursing in the 21<sup>st</sup> century – challenging its values and roles*”, I present the main characteristics and changes that define the 21<sup>st</sup> century and formulate some hypotheses about their influence on the values and roles of contemporary nursing. In memory of Henrietta Stockdale, who was a steadfast advocate for nurses in practice and in training, I will attempt to address 21<sup>st</sup> century implications for both nursing practice and nursing education. I would like to start off by recapping what is already known and familiar to us as nurses and these are the core values of nursing.

© Medpharm

Prof Nurs Today 2018;22(1):44-48

### Nursing's core values

The centrality of **caring** in nursing is undisputed in the literature. Its meaning is elusive but caring is one of the main factors that distinguishes nursing from other professions.<sup>1</sup> In fact, the author Roach goes further by saying that caring is not unique TO nursing – rather it is unique IN nursing, coining the phrase, professional caring.<sup>2</sup> In a concept analysis of caring over 10 years ago, relationship, action, attitude and acceptance were identified as core attributes of caring.<sup>3</sup> Further studies showed that caring happens within a relationship between a nurse and a patient/client/community; and that caring is a feeling that exhibits empathy and sensitivity towards others for which action is required – caring without action is simply a state of being.

To **Respect** means to hold something or someone in high regard– nurses are expected to have respect for human life and respect for the person as a total being, including respect for self and others as espoused by the SA Nursing Council. Closely linked is **human dignity**, which means having respect for the inherent worth and uniqueness of individuals and populations. **Integrity** as a value is defined as the quality of being honest and fair, and possessing high moral principles. When faced with challenges it is the integrity of the nurse that will keep her/him standing tall. Consider practice environments that are challenging either because of the type of patients or resource issues and the moral dilemmas they create. What defines nurses of high integrity

is when they act in accordance with an appropriate code of ethics and accepted standards of practice.<sup>4</sup> These absolutely have to be our moral compass in difficult and challenging circumstances.

Although regarded as an ethical principle by some, **altruism** describes the concern that one has for the welfare and wellbeing of others – it is a catalyst for **empathy**, which is an essential attribute of a caring nurse. Altruism can easily be remoulded into egotism when nurses' rights take precedence over patients' rights; altruism may also mould into a care-less attitude and failure to care when nurses' basic needs are not met, self-care declines and burnout ensues. It is here where nurse managers and leaders must take a leaf from Sr Henrietta's book, emulating the way she advocated for the welfare of nurses during her time.

### The 21<sup>st</sup> century world

The world as we know it has changed from what were easily discernible countries with defined borders, cultures and economies to what we have now – a world with porous borders where peoples, cultures, practices and economies have merged. So the questions we ask today are: how do nursing's core values hold up in a rapidly changing 21<sup>st</sup> century world? Are our values being remoulded or eroded? Are nursing roles still relevant and real in terms of the knowledge and skills demand?

In order to address these questions we need to understand what characterises the 21<sup>st</sup> century. There are several characteristics that are intertwined, each either causing or catastrophising the other. I will briefly explain only a few characteristics.

**Globalisation and the rise of the global economy:**

Globalisation has not taken place independently of technological advances – real time technology, free trade agreements, open job markets, and rapid and efficient transportation have resulted in global economic and cultural integration, enabling people, products and skills to become easily assimilated into a global village. People move around the world more freely, money can change hands more easily and virtually – think of bitcoin, a new technology that enables new ways of moving, using and storing money. An open job market means that in both affluent and emerging societies, jobs are no longer earmarked just for locals; globalisation has also opened access to opportunities such as education, entrepreneurship and economic freedom. South African nurses in particular are highly marketable and encounter very few, if any, barriers to employment and professional advancement. They remain highly sought after in the same way as they were in the days of Sr Henrietta whose products were in high demand to staff many hospitals in South Africa.

**Advances in science and technology:** The 21<sup>st</sup> century is known as the age of information technology as information is easily accessible through a range of smart devices; it is estimated that 45% of the world's people have smartphones and only 12% do not have phones at all. In South Africa > 75% (that's 40 million people) own cell phones even though 25 million people live below the poverty line; we have far less usage of smartphones but it is estimated that by 2022 more than 25 million South Africans will be using smartphones. Many of them are in communities we serve and could potentially be our patients or clients. This changes the way we interact with people and the way knowledge is exchanged and used. Assumptions that we have about our students, patients and communities of being "empty vessels" cannot be further from the truth. Every nurse who encounters a patient, every educator who encounters a student must assume the pre-existence of knowledge. The change required from nurses is to become knowledge age workers which I will talk about a later in this presentation.

On the other side of this, is the assumption that as a society gets more technologically and economically advanced, religiosity fades away and is replaced by a more secular worldview? Some people believe that the 20th century was probably the height of secularisation, and that the 21st century will likely be dominated by religion. The fact is that religion has been declining worldwide with an estimated 1.1 billion people unaffiliated in 2010. Whether replaced by secularisation, spirituality or something else, nurses would

need to be even more mindful of different viewpoints that define human origin and human existence.

In a changing world characterised by **third world consumerism** there is also discontent with governments who fail to take seriously, people's concerns around growing inequality, technological lag and the rise of terrorism, to name just a few. In a country such as ours there is huge dissatisfaction with people's basic human rights not being met – unhappy people then choose political leaders who portray rights as protecting only "others", usually minorities, at the expense of the follower majority. So in comes the populist leader who is seen as the people's saviour but actually is the promoter of "othering" – the biggest threat to human rights. The outcomes of populist leadership are self-serving, dividing societies and groups, rather than unifying them. Populist leadership is not just about a government – it serves as a prototype for leadership behaviour at different levels of society and organisations. I ask you to reflect for a moment on your own leadership and that which you've been exposed to.

In discussing the impact of a changing 21<sup>st</sup> century world on nursing, I will focus only on globalisation and technological advances.

### How does the changing world impact nursing values?

Caring is one of those multidimensional concepts that undoubtedly is under threat of being eroded in the 21<sup>st</sup> century. It is a value, an attribute, a role, an act and an ethic. It is the most aspired to in nursing and, in the world of science and evidence, the most difficult to measure. So when we select students for nursing we still cannot tell who is the most caring? Or similarly, whether positive patient outcomes are directly correlated with caring behaviours?

As human rights become increasingly under threat it will challenge nurses' caring and their resolve to respect human dignity regardless of circumstances; our target populations are those who are the most vulnerable and who need our protection and advocacy at all times. The populations we serve are not general workers or university students who can rise up and demand what they think they are entitled to – ours are vulnerable, compromised peoples who rely on us as nurses to safeguard their rights. We have the power not only to safeguard ALL their rights but to rise up and advocate for their right to access and obtain quality health and nursing care. In the process, nurses must develop deep intolerance towards the lack of essential equipment and supplies, to the shortage of beds and other essentials so that a labouring woman does not suffer the indignity of delivering her baby on a floor and then, suffer the trauma of losing her baby. With the advent of populist leaders we as nurses should develop

deep intolerance towards “othering” so that people with beliefs, citizenship, ethnicity, political affiliation, religion and sexual orientation, that are different to ours, can be assured of respect, inclusivity and fairness in care activities. Within our own sphere of work it is the elderly, people with disabilities and the mentally ill who are at risk for human rights abuse – “Life Esidemi” must never ever happen again...

In the face of a weakening human rights culture nurses must move from having merely a sense of awareness to a sense of activism and advocacy. In the face of a declining religiosity and morality in the 21<sup>st</sup> century, nurses have to strengthen their integrity and be firmly rooted in the ethical code of the profession. Although not new, I propose that the nurses’ values set be broadened to include diversity, social justice and excellence.

- **Diversity** is about affirming the uniqueness of and differences among people, ideas, values etc. in order to minimise “othering” and build a culture of inclusiveness
- **Social justice** is about upholding moral, legal and humanistic principles in providing nursing care. Accountability must be professional and personal.
- **Excellence** means nurses committing to continuous growth, improvement and understanding, using transformative approaches and challenging mediocrity in our profession.

### How does technology and automation impact nursing roles?

The use of computers and computer-driven machinery or robots to replace human labour that is routine, repetitive and predictable, has been significant in the 21<sup>st</sup> century. A recent article in the Canadian Nurse reports on the success of automation projects that were piloted across the globe, suggesting that nursing is not exempt from the robotic revolution.<sup>5</sup> In fact, if we consider the factors that have plagued the profession for decades now: persistent nursing shortages; high levels of routine and non-nursing tasks; the slow pace of change in the profession, significant skills lag that requires constant upskilling and re-skilling of nurses... these make nursing a justifiable target for automation. It does not come as a surprise therefore, that countries such as Japan, Sweden and Germany have already introduced robots in specific areas of care such as chronic care, elderly care and so forth. It is estimated that by 2020 more than 700 million people will be over the age of 65, and as many in this population will live with chronic diseases, requiring assistance with activities of daily living. It is unlikely that even an accelerated production of nurses will meet the healthcare demands of 2020 and beyond, making automated caregiving an uncomfortable reality.

Advances in technology such as artificial intelligence (AI) have elevated the use of automation beyond just routine

and repetitive tasks. Artificial intelligence integrated into robots with “a sophisticated, human-like design”<sup>6</sup> enable the simulation of human behaviour to a much higher level of refinement.<sup>7</sup> Humanoids, as they are called, are more social and personal in their interactions with people and can demonstrate near-human intelligence required in thinking and decision-making activities – areas of functioning that nursing has consistently claimed as making it different from a task-based, vocation.

### Robotics and the human touch

Nursing also claims that it is uniquely human. Jean Watson describes nursing as a human science and its main focus is on human care.<sup>2</sup> Can robots replace the human touch, the therapeutic use of self and the feelings of being a person? There are several efforts to increase the personhood and the human side of robots. Robots are not people but discussions have begun as to whether they could be persons in the legal sense, which will change legal accountability as we currently know it. Adding emotions enables humanoids to communicate more naturally with patients and show feelings such as enthusiasm when there is improvement, or unhappiness when a patient is non-compliant. The integration of AI and 3D software that enhances spatial awareness in robotics improves their perception of distance and depth, making robots safe to use with humans; together with materials that simulate human skin might advanced robotics make the “human touch” a reality?

The proverbial human touch is, to some extent, also responsible for healthcare errors (or adverse events). According to COHSASA, up to 75% of healthcare errors are preventable, with some hospitals in South Africa adopting computerised systems to monitor, analyse and manage adverse events.<sup>8</sup> What about those that are caused by human error? As an example – medication errors in hospitals are overwhelmingly caused by human error. There is no reliable composite statistic for medication errors in South Africa, however, several small-scale studies show a high and an ever increasing incidence in our hospitals and clinics. According to the 2013 statistics of the SA Nursing Council, approximately 18% of professional nurse misconduct cases between 2003 and 2008 were related to medication administration. The most alarming finding is that professional nurses in South Africa perceive medication administration errors to be rare.<sup>9</sup> If nurses’ perception is that of being “OK” then how can we begin to change or improve practices that are “not OK”?

Robotic devices and advanced robotic dispensing systems allow IV preparations to be mixed and dispensed without touching human hands and this way can also minimise medication errors.<sup>10</sup> The most profound technological advancement that minimises the human touch has to be in operating theatres. Robotic surgery performed through

incisions that are much smaller than a human arm could penetrate, means less immediate postoperative pain, less blood loss and shorter hospital stays; however, robotic surgery has not yet consistently shown a reduction in postoperative infections. In some private health facilities operating theatre assistants are being trained to assist during surgery and to ensure surgical safety. These initiatives change the role and question the future of the theatre nurse as we know it. Post-operative nursing care thus will have to become more nuanced around pain control and monitoring of post-operative bleeding and signs of infection.

So what does all of this mean for the profession? Nurses' roles will have to become distinctly nursing, making way for routine tasks and measuring activities to be done by machines. Nursing must re-establish itself as a people-centred, practice-based, evidence-informed profession – its nurses using the data and information that technology and research provide for meaningful communication, decision-making and interventions with and for the people we serve, to ensure their well-being, safety, comfort and dignity in all stages of life.

It is my view that robots may be able to replace nurses but it is not a substitute for nursing. The essence, or the spirit of nursing, is uniquely human and the nuances of nursing cannot be emulated by robots.

### How does technology impact nurse education?

It follows that the knowledge and skills demand and how we prepare nurses for the workplace too must change. Nurses will be required to perform more complex thinking tasks that robots cannot perform – these include: complex interactions with other human beings (collaborating, negotiating, persuading or evaluating) or solving unexpected problems using expert thinking. According to Jerald, strong maths and reading skills are essential – they form the foundation of complex communication and expert thinking.<sup>11</sup> It is therefore important that we do not remove these from selection and admission processes into nursing to ensure that nurses can operate at higher levels of thinking and engage in complex interactions.

What then is the nature of knowledge in the 21<sup>st</sup> century? In the post-industrial knowledge era, people need to know what kinds of knowledge there are, and need to be able to do things with this knowledge and to use it to create new knowledge. Nurses must become knowledge-age workers who are able to locate, access and present new information quickly and reliably; communicate it, understand it within a broader “systems” mind set or “big picture”. Knowledge is no longer considered as that being stored in expert minds or belonging between the covers of books and journals. Having knowledge is no longer the recall of facts or the ability to repeat it in practice – if we do this then we are no different to a low level robot. Spoon-feeding of nursing

students is out – as novelist EM Foster says: it teaches them nothing but the shape of the spoon.<sup>12</sup> Knowledge in the 21<sup>st</sup> century is thought of as an energy field with the potential to do something or to make something happen – it is best produced by collective intelligence, complementary ideas and creativity. So educator strategies must be deliberately transformed to encourage active, creative and collaborative learning.

What about new courses in nursing? Building on the skills of a tech-savvy generation and creating exciting possibilities alongside technology in and for nursing will go a long way to improve the marketability of nursing. We need to create/include new courses – think of anthropology, international relations, law and ethics; think of specialisations in nursing such as genetics and nursing informatics. Nurse informatics specialists are at the forefront of changing technology in the health sector. Nursing informatics is a specialty that integrates nursing science with information management and analytical sciences to manage and communicate data and information to patients, consumers, nurses and other healthcare providers.

Globalisation and technology also affect the types of knowledge and skills that students will need in order to thrive and compete. Working and collaborating with people around the world require greater global literacy – i.e. knowledge about people and cultures outside of one's own country. More often than not, students need to think and learn this for themselves to become global citizens. This is where self-directed, life-long learning is more than just rhetoric – it must become real in the way we prepare nurses in colleges and universities for 21<sup>st</sup> century health care. Active learning is in, passive learning is out; chalk-and-talk is out, technology-enriched teaching and learning is in. But be assured that technology will never replace nurse educators but those who use technology would likely replace those who don't.

### Concluding remarks

Ladies and gentleman, there is nothing futuristic in what I presented this morning – the future of nursing is already here. This century still has over 80 years remaining so let us embrace, participate in and shape nursing in the 21<sup>st</sup> century. Nursing's values are worth preserving – its roles, indispensable and responsive to the call of nursing.

In closing, I would like to congratulate all the students who were badged and whose hands were blessed this morning. Remember the power of nursing's call lies in your hands, and as you live up to your college motto “*Service above self*”, never underestimate your ability and your courage – as the saying goes if there's a Goliath in front of you, there is likely a David inside of you.

## References

1. Bolderston A, Lewis D, Chai MJ. The concept of caring: Perceptions of radiation therapists. *Radiography*. 2010;16(3):198-208.
2. Roland G. The meaning of caring from nurses working at an intensive coronary care unit in Mauritius. *International Journal of Scientific and Research Publications*. 2014;4(8):1-7.
3. Brilowski GA, Wendler MC. An evolutionary concept analysis of caring. *Journal of Advanced Nursing*. 2005;50(6):641-650.
4. Fahrenwald NL, Bassett S, Tschetter L, et al. Teaching core nursing values. *Journal of Professional Nursing*. 2005;21(1):46-51.
5. Glauser W. Artificial intelligence, automation and the future of nursing. *Canadian Nurse*. May/June 2017. [www.canadian-nurse.com/en/articles/issues/2017/may-june-2017/artificial-intelligence](http://www.canadian-nurse.com/en/articles/issues/2017/may-june-2017/artificial-intelligence) Accessed 12 September 2017.
6. Eriksson H, Salzman-Erikson M. The digital generation and nursing robotics: A netnographic study about nursing care robots posted on social media. *Nursing Inquiry*. 2016; 24e12165. <https://doi.org/10.1111/nin.12165>
7. Liao PH, Hsu PT, Chu W, et al. Applying artificial intelligence technology to support decision-making in nursing: A case study in Taiwan. *Health Informatics Journal*. 2015; 2(12): 137-148.
8. Whittaker S. Medical Error: Transforming the culture of blame. *HASA Annals*. 2007; 44-47. [http://www.cohsasa.co.za/sites/cohsasa.co.za/files/medical\\_error.pdf](http://www.cohsasa.co.za/sites/cohsasa.co.za/files/medical_error.pdf) Accessed 1 October 2017.
9. Blignaut AJ, Coetzee SK, Klopper HC, et al. Medication administration errors and related deviations from safe practice: an observational study. *Journal of Clinical Nursing*. 2017;26:3610-3623.
10. Gimenes FRE, Faleiros F. Nursing challenges for the 21st century. *Journal of Nursing Care*. 2014;3(1):1-3. <http://dx.doi:10.4172/2167-1168.1000143>
11. Jerald CD. Defining a 21st century education. The Centre for Public Education. 2009. <http://www.centerforpubliceducation.org/Learn-About/21st-Century/Defining-a-21st-Century-Education-Full-Report-PDF.pdf> Accessed 1 October 2017.
12. The BBC talks of EM Foster, 1929-1960. <http://izquotes.com/quote/64231> Accessed 1 October 2017.