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The WORSAT – An innovative self-assessment tool facilitating reflection in medicine

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Abstract

Increasing attention is appropriately being directed to reflective practice in medicine and healthcare. In this setting we present an innovative method, and specific tools, for self-reflection which facilitates deep and non-threatening thought and discussion. In addition, use of one of our tools allows recognition of all the components required in medical practice and supports optimal patient care as well as clinician wellbeing.

Keywords: reflective practice, clinician wellbeing, self-reflection, patient care

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INTRODUCTION

There has been much discussion of 'reflection' and 'self-reflection' in medical practice in recent years. These terms are commonly understood to indicate an allocation of time and effort in contemplation of one's own thoughts and actions.

Of course, there are multiple usages of the word 'reflection' including the notion of an image seen in a mirror, the thought that one thing reflects an underlying condition or is a consequence of something else, or the mathematical definition of reflection – the inversion of a system around a plane.

In some ways, the use of the word reflection in our own medical practice may include all of the above, with the common thread being that through a reflective practice we are able to view ourselves and our systems from a different perspective.

Whatever the definition, it appears that authentic self-assessment and reflection are valuable techniques and habits in life. These practices enable growth and lead to greater understanding of both one's own life and the surrounding environment. It is also generally agreed that reflective practice is valuable in medicine (Schei, Fuks & Boudreau 2019). It can encourage better, more fulfilling and insightful performance (Ganni et al. 2018; MacKinnon, Rosema & Cyca 2022; Price, Jowsey & Weller 2023).

Professional bodies including undergraduate medical colleges and specialist training colleges espouse the importance of self-reflection in elevating professionalism, acquiring and embedding skills, and becoming a

more rounded physician. Many post-graduate continuing medical education (CME), quality assurance, or continuing professional development (CPD) programs include a component pertaining to reflection about activities.

The practice of medicine is changing in the twenty-first century and increasingly encompasses other roles in addition to patient care. More than ever, doctors are expected to be team members, leaders, lifelong learners and able to foster good relationships while still proving exemplary individual clinical care. In addition, there is an urgent need for more attention to be directed to physician wellbeing.

Reflective practices clearly have a place in all the above. However, self-reflection cannot be assumed to be simple. Both individual and group self-reflection can be nebulous, poorly understood and difficult to assess and develop. Changes in an individual's reflective practices are also hard to quantify over time (Sandars 2009).

It is evident that reflections on an individual patient's care and outcomes may be easier to recall and discuss than reflection on communication or functioning as a team member or leader. Team domain reflections may be less specific and 'fuzzier' (Bindels et al. 2018). Although reflection is generally assumed to be part of quality assurance and contribute to being a 'good doctor' there can be risks with forced or poorly constructed reflection programs. These risks may include creation of negative self-thought or stress in those with pre-existing challenges to their self-esteem (Cameron, Holmes & Vorauer 2009). And in some individuals, particularly those with perfectionistic tendencies – not uncommonly seen in medicos – there can be the risk of unwittingly causing unhelpful rumination (Kun et al. 2020).

Reflective practices must therefore be implemented carefully and consciously in all settings. Openly discussing experiences or insights in a group setting can have accompanying challenges. Sharing reflections with others must occur in a psychologically safe environment. If this safety is lacking, team members will choose to remain silent (Bindels et al. 2018).

The need for effective self-reflection tools seems to be increasingly important. Unfortunately, these tools are rare and sometimes cumbersome or excessively time consuming (Winkel et al. 2017). In this setting, we present an initial review of our own innovative self-reflection tool – developed for our own trainees and colleagues within our own specialty of obstetrics and gynaecology. This area of medicine is a high risk and emotionally charged environment in which doctors have to deal with many and varied situations, interactions and expectations.

Of course, these pressures are also shared by other specialties, with situations and circumstances where skilful reflective practices may be valuable. Indeed, despite the WORSAT being developed within a specific context and with our own needs in mind, the concept is easily adaptable to other settings, and we welcome other groups utilising the tool or modifying it for their own purposes.

MATERIALS AND METHODS

The initial tool (Figure 1) was designed to be used by specialist registrars within our unit. We affectionately named the tool the WORSAT (Wodonga Obstetric Reflection and Self-Assessment Tool) after the city where our unit was based. The WORSAT contains twelve domains, with four (surgical

skill, clinical skill, obstetric skill and academic ability) relating to the conventional skills and technical expertise considered necessary to be proficient in our profession. Four domains pertain to the ability to meld into teams and specifically involve the relationships and communication essential to the optimal care of our patients (relationships with seniors, relationships with juniors, relationships with peers and, relationships with midwives). The final four domains (emotional resilience, flexibility/plasticity, calm leadership and community-mindedness) speak to inner qualities that are less commonly discussed, but important nonetheless.

Each domain has explanatory notes within the document that describe how the authors view the relative domains. The number of domains is arbitrary and it may be argued that other qualities should take precedence over those that the authors settled on based around what we saw as qualities the 'ideal' candidate would exhibit in our setting. We believe these twelve domains are essential for technical proficiency as well as interaction with other professionals and provision of optimal care to patients and the wider community.

Figure 1: WORSAT (Wodonga Reflection & Self-Assessment Tool)

Rate the following characteristics 1 to 12, in order of what you feel to be your best characteristic (e.g., rate 'Emotional resilience' no. 1 if you feel this to be what you shine best at.) All twelve numbers must be used, and no characteristics ranked the same number.

Characteristic	Descriptive Notes	Ranking
Surgical skill	Ability to learn and recall new surgical techniques and apply them safely. Recognition of surgical planes, anatomy, and handling of unexpected situations, e.g., massive postpartum haemorrhage with anatomy distorted by obstructed labour.	
Obstetric procedural skill	Clinical assessment, instrumental delivery ability (when, where and how to achieve delivery), non-delivery skills, e.g., external cephalic version.	
Clinical skill	Assessment of clinical situations, ability to apply first principles and theoretical knowledge to individual patient scenarios to achieve desired clinical outcomes.	
Academic ability	Intellectual curiosity, ongoing initiative and discipline to pursue specialist knowledge.	
Relationship with senior colleagues	Achieving a balance between respectful comradery, deference to broader experience, and maintaining an inquiring mind so as to offer opportunities for exploration and mutual learning.	

Characteristic	Descriptive Notes	Ranking
Relationship with peers	Maintaining collegiality, and demonstrating appropriate generosity in sharing opportunities for training and learning.	
Relationship with midwives and nurses	Fostering friendship, respect, and team-spirit with our colleagues, without enforcing adversarial attitudes.	
Relationship with junior staff	Teaching when appropriate and inviting opportunities to contribute, whilst still being able to delegate tasks as necessary in a fair manner. Offering supervision in an enabling, empowering way.	
Community mindedness	Ability to integrate into the hospital community with other specialties, as well as the local community.	
Emotional resilience	Ability to process challenging events and environments, including adverse clinical outcomes and communication challenges, without impacting ability to continue daily activity.	
Flexibility/ plasticity	Ability to respond to unexpected events or situations with creativity, and incorporate such experiences positively into your clinical arsenal of skills and tools.	
Calm leadership	Maintaining composure and ability to provide calm direction in emergency situations demanding action.	

Further comment – please describe how you now feel after having performed this exercise, including:

1. Were you surprised at how you ranked yourself? If so, why?
2. Would you like to improve any of these characteristics in yourself? Please name them, and how you might achieve this improvement.
3. Have you found this assessment tool of any use? Please explain why.

Additional comment, including suggestions for improvement:

Most self-reflection tools in medicine rely on a self-scoring scale, rating oneself against a maximum or ideal score (Learman, Autry & O'Sullivan 2008; Lonka et al. 2001). Each scoring item, or assessed skill, is a standalone assessment. As these tools are essentially designed to identify weakness or areas of potential improvement, they have the risk of emphasising deficit and generating negative sentiment. A further drawback can be that the participant may score themselves according to what is 'right' or what they perceive the assessor to expect. Clearly this detracts from true self-reflection. The authors constructed a self-reflection program within our training pathways that is undertaken in a psychologically safe

manner, and which generates true reflection on strengths as well as areas that may require attention.

The WORSAT tool has many advantages over traditional reflective practice tools, including the understanding that there is no 'optimal' score or result. We created a strengths-based tool and approach, rather than a deficit-based context. The tool (Figure 1) instructs users to number the categories from 1 to 12. The number 1 is assigned to the category that the user feels is their greatest strength currently, and the strengths are ranked through to 12, which is attached to the area that is the least strong. The focus is in ranking one's relative strengths across all domains. In a sense, each user will have the same result – each box will have a number from 1 to 12 beside it – but the order of the strengths will be different for everyone. This allows development of one's own abilities rather than comparison to others or an unattainable ideal.

We believe that our tool helps to illustrate and embed the qualities we see as being vital in our role and our setting. The tool can be completed anonymously, thus enabling private reflection, or with the help of a mentor. It can be retaken multiple times throughout a career, reflecting the temporal change that occurs in relative strengths and weaknesses for each of us.

Our specialist registrars over several years were the group for whom the tool was initially, and predominantly, used. The tool was extended to GP obstetric registrars after the value and potential for wider application became apparent. The registrars were requested to complete the tool, together with comments, at the beginning of their training year and again at the end (without reference to their original response).

Over time, and with use of the WORSAT creating excellent opportunities for support and mentoring opportunities for trainees, we developed the WORSAT–2 (Figure 2), which is designed for more senior doctors who have completed their training years. The WORSAT–2 (Figure 2) has a similar structure, with less emphasis on technical abilities and greater emphasis on factors important in a long career, such as self-compassion. We used this tool with mid-career GP obstetricians and specialists.

Figure 2: WORSAT–2 (Wodonga Reflection & Self-Assessment Tool – 2)

Rate the following characteristics 1 to 12, in order of what you feel to be your best characteristic (e.g., rate 'Emotional resilience' no. 1 if you feel this to be what you shine best at).

Characteristic	Descriptive Notes	Ranking
Clinical and procedural skill	Assessment of clinical situations, ability to apply first principles and theoretical knowledge to individual patient scenarios to achieve desired clinical outcomes. Ability to apply procedural techniques safely.	
Error recognition	Openness to realisation of possible mistakes in practice, including acceptance of feedback from colleagues.	

Characteristic	Descriptive Notes	Ranking
Self-compassion	Extending compassion to one's self when considering perceived inadequacies.	
Kindness to and empathy with patients	Undertaking voluntary and purposeful action towards fostering patients' wellbeing, whilst maintaining a healthy personal boundary.	
Emotional resilience	Ability to process challenging events and environments, including adverse clinical outcomes and communication challenges, without impacting ability to continue daily activity.	
Flexibility/ plasticity	Ability to respond to unexpected events or situations with creativity, and incorporate such experiences positively into your clinical arsenal of skills and tools.	
Vocational satisfaction	Contentment with choice of profession, more broadly, as well as choice of specialty.	
Relationship with peers	Maintaining collegiality, and demonstrating generosity in sharing opportunities for training and learning.	
Relationship with midwives and nurses	Fostering friendship, respect and team-spirit with our colleagues, without enforcing adversarial attitudes.	
Relationship with junior staff	Teaching when appropriate, and inviting opportunities to contribute, whilst still being able to delegate tasks as necessary in a fair manner. Offering supervision in an enabling, empowering way.	
Calm leadership	Maintaining composure and ability to provide calm direction in a situation demanding emergent action.	
Community-mindedness	Ability to integrate into the hospital community, with other specialties, as well as the local community.	

Further comment –please describe how you now feel after having performed this exercise, including:

1. Were you surprised at how you ranked yourself? If so, why?
2. Would you like to improve any of these characteristics in yourself? Please name them, and how you might achieve this improvement.
3. Have you found this assessment tool of any use? Please explain why.

Additional comment, including suggestions for improvement:

APPLICATION OF WORSAT AND INITIAL RESULTS

The WORSAT method of reflection was designed for a setting in obstetrics and gynaecology training and practice and the results below pertain to that setting. However, the essence and strength of the WORSAT is in the type of reflection that it provokes and the ability, with minor adjustment to wording, for it to be used in almost all specialties and healthcare roles that would benefit from a reflective practice. Given this flexibility of application, we see the WORSAT as being an important new direction, and present our preliminary results while encouraging readers to consider adaptation to their own area of practice.

The WORSAT tool was easy to administer although many trainees found that completion took longer than anticipated due to the thought-provoking need to rank relative strengths. All trainees found it useful, and supervisors described the ability to refer to the tool allowed non-challenging conversations that could range over the breadth of a trainee's strengths and performance and allowed planning and goal setting in all areas.

WORSAT–1 was applied on 16 occasions to trainees over the first several years of the program. In some ways, the result of each individual assessment is of little consequence as long as it has been completed thoughtfully and led to reflective practices. However, it is interesting to note which items scored highest (scored as 1) or lowest (scored as 12) and the average score of each item – noting that a lower average score means it was rated more highly as a strength (Table 1).

The item 'Emotional resilience' was rated in 3/16 registrars as their greatest strength but interestingly also rated in 3/16 as their least strong category. 'Community-mindedness' was rated in 7/16 as their relatively weakest strength. A sense of community is important to us and this result provoked discussion between the authors. Similarly, we were pleased to note that the 'Relationships with peers' item had the lowest average score which indicated a harmonious registrar team – one of our key aims for the department.

We have not analysed any trends from start to finish of the training year due to relatively small numbers and because the aim of the WORSAT is not to see 'improvement' but rather allow clinicians to reflect on where they are in that particular moment. The answers to the questions at the end of the WORSAT indicated deep thought and consideration of multiple themes critical to one's own career and the care of others.

Table 1: Initial results of the WORSAT

WORSAT item	Rated '1'	Rated '12'	Average score (out of 12)
Surgical skill	2/16	2/16	7.9
Obstetric skill	1/16	1/16	6.4
Clinical skill	2/16	0/16	4.8
Academic ability	0/16	2/16	8.6
Relationships with seniors	0/16	0/16	5.0
Relationships with peers	3/16	0/16	3.3
Relationships – nurses/ midwives	0/16	0/16	5.9
Relationships with juniors	1/16	0/16	5.9
Community-mindedness	1/16	7/16	9.7
Emotional resilience	3/16	3/16	6.3
Flexibility/plasticity	2/16	1/16	7.0
Calm leadership	1/16	0/16	7.1

Examples of responses to the prompt questions were:

- This (WORSAT) has helped me to focus/outline what I want to achieve this year.
- I rarely put pen to paper with self-reflection and this gives me something tangible to work towards.
- It is a reminder of the areas I need to focus on to become the kind of consultant I want to become in the future.
- I wish it was dichotomous! Ranking is HARD!
- I would like to be better at not being so hard on myself.
- As a doctor in training, we get evaluated frequently by others. I still have imposter syndrome which I need to overcome.
- I feel I am equally good (or bad!) in some domains and would have liked to be able to rank myself equally for some, but not being able to do so in fact provided the opportunity to reflect on my practices even more.

The WORSAT–2 was applied to six consultants and GP obstetricians. All found the process interesting and useful. Some comments were:

- It is good to review practice and have feedback – particularly in a non-threatening environment. We should all be lifelong learners.
- We often focus on clinical skills rather than all of the other skills needed to execute those clinical skills.
- Would be interesting to compare rankings at different stages of career.
- Very useful to reflect that self-worth, contentment and being a good team-player will make you a better clinician.

DISCUSSION

The increasing emphasis on self-reflection throughout healthcare is a necessary and valuable initiative. Authentic and compassionate self-reflection, and also guided discussion of the results, is important to improve individual performance and clinical outcomes. This process may also contribute to enhanced individual wellbeing.

However, hasty adoption of certain methods labelled as self-reflection aids can have risks (Cameron, Holmes & Vorauer 2009; Kun et al. 2020) with potential counter-productive effects of increasing stress on juniors when they feel they are constantly having to live up to an unattainable ideal. Even worse, the trainees may judge themselves even more harshly and ruminate on this. In this setting, the reality that we all have a unique blend of relative strengths is important to recognise.

We feel that the WORSAT stands out among other tools as there is no "right or wrong" response or assessment. This feature reduces or eliminates performance pressure. By ordering one's relative strengths at that point in time we aim to alleviate any stress and negativity and allow true reflection and generative discussion. The process leads to individuals truly reflecting and both embracing their own capabilities while also identifying areas deserving of more thought or attention. With this style of assessment, we aim for a more thorough and profound self-reflection practice.

A further advantage of our tool and method is shown by the production of WORSAT–2. This tool suits practitioners who are more advanced in their careers and perhaps have different pressures than trainees. The descriptors in WORSAT–1 are clearly directed towards specialty training in obstetrics and gynaecology. WORSAT–2 is more generic and able to cross specialties, and perhaps even professions, due to the different wording used. Indeed, WORSAT–1 and WORSAT–2 can be modified by many teams, according to their own context. The use of a WORSAT–2 worded specifically to include necessary features in one's own setting may contribute to a more integrated team and healthcare environment.

For the best results, the WORSAT style of reflection requires a mentor/supervisor to spend time with the trainee and unpack the scores. Of course, much important self-reflection will already have occurred by that point; however, the need for supervisor's time commitment could be seen as a drawback. Our own view is that this time, and the ability to connect at a deeper and more vulnerable level, is valuable and will strengthen the trainee-supervisor relationship with more effective mentorship and guidance.

We invite all readers to complete the WORSAT to experience the challenge and interest involved in this process!

CONCLUSION

The authors' aim with the production of the WORSAT was to invent an innovative and less threatening self-reflection tool for our trainees. The responses and results have been illuminating and pleasing. Therefore, we share this tool in the hope that others may also find it useful.

The overall aim is, of course, to achieve greater clinical excellence and also to aid participants in realising their place and worth in the workplace as doctors, teammates, mentors, and, most crucially, as individuals.

Ultimately, we wish for both self-acceptance as well as improvement, a seeming paradox, which in truth is magically consistent with the practice of the best doctors we know.

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