Background
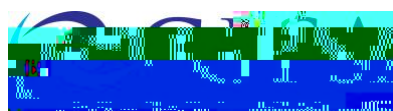
The educational alliance is the basis for the clinical, educational and personal development of a registrar and is central to the concepts of supervision and learning (1). Measurement of this relationship has not featured widely in general practice but is more prominent in other disciplines, notably psychology (2). If the relationship between the registrar and the supervisor is less than optimal this will likely impact the educational alliance and thus the educational outcomes of the registrar (3).

The supervisory relationship has two perspectives: that of the registrar and the supervisor. Both of these perspectives are important to determine the strength of the alliance and possible areas for support. There are a number of instruments that measure the educational environment from the registrar perspective in postgraduate training in Australia and overseas (4,5,6,7). However, there have previously been no validated tools to measure the educational alliance or supervisory relationship within the Australian GP context. In addition, there is a need for the use of partner instruments to measure the educational alliance from both the registrar and supervisor perspectives.

The Short Supervisory Relationship Questionnaire (S-SRQ) and Supervisory Relationship Measure (SRM) are partner instruments that provide the registrar and supervisor perspective on the supervisory relationship (8,9). They were both found to be valid and reliable in the context of psychology in the UK.

Regional Training Organisations (RTOs) currently use a range of locally developed instruments to collect feedback from registrars on their educational experience and in particular, the nature and quality of supervision received. Our research aimed to produce partner instruments, validated for the Australian GP context for measuring the supervisory relationship in placements: the GP-SRMS (GP-Supervisory Relationship Measure, Supervisor) and the GP-SRMR (GP-Supervisory Relationship Measure, Registrar).

These resultant standardized, validated instruments can be used to measure the educational relationship between registrars and supervisors across all RTOs and thus the AGPT Program. We also used computer adaptive testing (13) to ensure that the instruments are as user-friendly and practical as possible whilst retaining rigour as a fit-for-purpose instrument.

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Method

This project adapted and validated the S-SRQ for use with GP Registrars, as a partner instrument to the already developed GP-SRMS. The original S-SRQ, developed for use with clinical-psychology trainees, consists of Likert-scale items, which measure the level of agreement with 18 statements regarding the supervisory relationship with a particular supervisor.

An Expert Registrar Advisory Group was convened in November 2017, consisting of experienced GP registrars from GPEx and GPTT. This group was asked to determine the appropriateness and clarity of each of the 18 statements of the S-SRQ and to suggest amendments or additions, to measure the registrar-supervisor relationship from the GP-registrar perspective. A nominal group technique was used. As a result, the original 18 items were adapted, and 14 new items were added—resulting in a 32-item instrument. The associated demographic survey was extended from 12 questions to 17 questions.

The modified S-SRQ (now called the GP-SRMR, for GP-Supervisory Relationship Measure, Registrar) was piloted through SurveyMonkey in December 2017 with an Expert Registrar Pilot Group, consisting of registrars from GPEx and GPTT at different stages of training. Participants provided feedback on item clarity, appropriateness and time taken to complete the survey. As a result of this pilot, 5 items adapted from the original survey were removed from the GP-SRMR, as not being relevant for the registrar—supervisor relationship, and 2 items were amended, resulting in a 27-item instrument.

In addition, a review of the pilot results by the project working group identified the fact that a subscale in the GP-SR

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shown is the source of each item; whether it was adapted from the S-SRQ or GP-r56wRQtPpedTJ 0.0-.775164T-1 cd (l)-by

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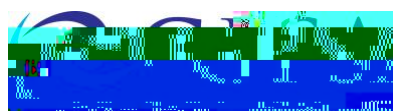
Table 2 shows the demographic characteristics of the survey registrar respondents and their supervisors. Table 2 also shows, for each respondent characteristic, the average score of each subscale. Scores, in theory, **can vary from 1 to 7, with a score of 1 indicating that all respondents "strongly disagreed" with all item statements in the subscale, and a score of 7 indicating that all respondents "strongly agreed" with all it**em statements in the subscale. Overall, scores are very high, indicating a strong degree of satisfaction by registrar respondents to this survey with the supervisory relationship. In aggregate, average subscale scores **are highest for 'safe base' (6.5), 'registrar professionalism' (6.4) and 'supervisor investment' (6.1), and lowest for 'emotional intelligence' (5.6). Average scores for each subscale are relatively consistent across** respondent characteristics.

To determine the suitability of the scales for use in a computerized adaptive platform, the subscales within the GP-SRMR and GP-SRMS (with the exception of GP-**SRMR 'Emotional intelligence' subscale which is** already very short with only four items) were evaluated for goodness of fit to a graded response model. The results suggested that aside from a significant number of disordered thresholds, the subscales of the GP-SRMR and GP-SRMS could be used in a computerized adaptive platform. Disordered thresholds occur when item responses are not selected as expected, and indicate that the existing 7-point scale may be more appropriately used if rescaled to a 4- or 5-point scale.

Using the parameters from each of the subscales of the GP-SRMR and GP-SRMS, 1000 cases were simulated to determine the effectiveness of computerized adaptive testing. The results suggest that near perfect correlations between the full length scales and adaptive applications of the scales can be achieved. Specifically, the full length GP-SRMR contains 35 items in 4 subscales, but on average can be shortened to 22 items using computerized adaptive testing—a reduction of 38%. The GP-SRMS contains 45 items, but on average can be shortened to 18 items, reflecting a reduction of 60%.

Conclusion

The project team has successfully adapted the S-SRQ to the GP-SRMR (GP-Supervisory Relationship Measure, Registrar) and validated the results. The GP-SRMR is now a companion instrument to the GP-SRMS (GP-Supervisory Relationship Measure, Supervisor), developed as part of a previously funded RACGP project. Both are reliable and valid measures of the registrar–supervisor relationship. Bot157MR a5P834(r)6.99574(a)5a( )-1.99751
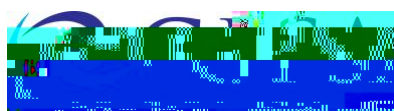
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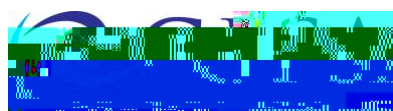
The newly developed GP-SRMR does provide insights into relationship deficits and professional development opportunities for GP supervisors within the AGPT context. As an example, the survey result

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References

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2. Pearce N, Beinart H, Clohessy A, Cooper M. Development and validation of the supervisory relationship measure: a self-report questionnaire for use with supervisors. British Journal of Clinical Psychology, 2013;52: 249–268.

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Statement	Subscale[a]	Source of statement
39. My supervisor is attentive to my unspoken feelings and anxieties.	EI	S-SRQ
3. My supervisor takes time to get to know me.	EI	GP-SRMS
33. My supervisor takes an interest in my career development.	Excluded	Expert Group
44. My contractual relationship with the practice impacts negatively on the supervisory relationship.	Excluded	Expert Group
5. My supervisor gives feedback in a way that feels safe.	Excluded	S-SRQ
35. My supervisor is open-minded in supervision.	Excluded	S-SRQ
36. My supervisor gives me positive feedback on my performance.	Excluded	S-SRQ
9. I am able to manage an appropriate case load.	Excluded	GP-SRMS
19. My supervisor values having me in the practice.	Excluded	GP-SRMS
21. Evaluation of my performance has a negative impact on my relationship with my supervisor.	Excluded	GP-SRMS

Table 2. Subscale means by demographic characteristics—GP-SRMR survey, 2018

			Subscale means (1=Strongly disagree, 7=Strongly agree)			
Characteristic	#	%	Supervisor investment	Registrar professionalism	Safe base	Emotional intelligence
1. What is your age?						
25-29 years	56	24.6	6.0	6.3	6.5	5.6
30-34 years	79	34.6	6.2	6.4	6.6	5.8
35-39 years	44	19.3	6.0	6.5	6.5	5.7
40-44 years	28	12.3				

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Table 2. Subscale means by demographic characteristics—GP-SRMR survey, 2018 (continued)

Characteristic	#	%	Subscale means (1=Strongly disagree, 7=Strongly agree)			
			Supervisor investment	Registrar professionalism	Safe base	Emotional intelligence