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A competency framework and measure for psychologists: the psychometric assessment of the Competencies of Professional Psychology Rating (COPPR) Scales

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ABSTRACT

Objective: The Competencies of Professional Psychology Rating (COPPR) Scales provide a standardised, multi-dimensional framework for conceptualising and measuring the competencies of registered psychologists across all domains of practice. The COPPR Scales consist of both a self-report version for practitioner self-evaluation (the COPPR-S) and an observer version (COPPR-O) for supervisors and educators to rate competence of trainees. These scales have utility for psychologists to self-assess their competence within self-reflection, for supervisors to rate trainee competence, and for research and educational contexts.

Method: Following on from an initial pilot study, this study provides a psychometric evaluation of the COPPR-S, including tests of dimensionality, reliability and validity, with a sample of Australian Psychologists ($N = 211$).

Results: The confirmatory factor analysis provided support for the structure of the measure and all 11 domains of competence. Internal consistency was calculated for each of the domains and the total score, and strong support for convergent and divergent validity was obtained. In addition, the COPPR-S was able to discriminate between the three participant registration groups of provisional registration, general registration, and additional endorsements. Thus, strong support for the COPPR-S as a conceptual model of psychologist competencies and multi-dimensional measure was provided, and the items are presented for use in practice, education and research.

KEY POINTS

What is already known about this topic:

- (1) Psychology has adopted a competency-based approach, which requires a competency framework to conceptualise the skills across multiple domains of practice in Australia.
- (2) Standardised measures are needed to assess competence across all domains of practice, however, there has been a notable absence of standardised measures for assessing competence in professional psychology, at registered psychologist level.
- (3) The Competencies of Professional Psychology Rating (COPPR) scales provide a framework for conceptualising and measuring the competencies of registered psychologists across all domains of practice.

What this topic adds:

- (1) This study provides a psychometric evaluation of the Competencies of Professional Psychology Rating (COPPR) Scales, and strong support for the COPPR-S as a conceptual model of psychologist competencies and multi-dimensional measure is provided.
- (2) The COPPR scales are presented in this paper for the first time, enabling use in practice, education and research contexts. There are two versions, one for practitioners to self-reflect and self-assess performance (the COPPR-S), and one for supervisors or educators to rate trainee competence (COPPR-O).
- (3) The COPPR Scales provide a valuable tool for psychologists to self-assess their competence across multiple domains of practice, for supervisors and training providers to assess trainee competence, and for research contexts.

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Internationally, the profession of psychology has adopted a competency-based training approach, with a focus on the development of competence across multiple domains of practice (Fouad et al., 2009;

Gonsalvez et al., 2016; Rodolfa et al., 2005, 2013). This approach necessitates the identification of a competency framework, in order to delineate the required competencies, ascertain and address areas

for development, assess relative strengths and weaknesses, and for professional accountability (Hatcher et al., 2013). In addition to the conceptualisation of skills within a holistic competency framework, this approach requires competence to be measured and assessed (Rodolfa & Schaffer, 2019). Despite this identified need, there has been a notable absence of standardised measures for assessing competence in professional psychology, at registered psychologist level.

The Competencies of Professional Psychology Rating (COPPR) Scales (Rice et al., 2022) represent the first known measure to assess professional psychology competence based on the Australian Psychology Accreditation Council Standards (APAC, 2019) for registered psychology (Level 3). The Psychology Board of Australia (PsyBA) and the Australian Health Practitioner Regulation Agency (AHPRA) have recently released the long-awaited Professional competencies for psychologists (2024a), to be implemented from December 2025. Accreditation Standards are “statements used to assess whether a program of study, and the education provider that provides that program, provide graduating students with the knowledge, skills and professional attributes needed to practise as a psychologist safely and competently in Australia ... Professional competencies are typically referenced or embedded in the accreditation standards for approved programs of study and considered as part of the assessment of programs and providers. The competency requirements for a Board-approved qualification are detailed in the APAC Accreditation Standards for psychology programs (the APAC Standards). The accreditation standards require education providers to design and implement programs and curriculum that map to all the professional competencies for psychology” (AHPRA, 2024a, p.4). Thus, the APAC Standards represent and embed the competencies required for registration as a psychologist in Australia.

Based on these Accreditation Standards (APAC, 2019), the COPPR provides a framework to conceptualise competence across 11 broad domains of practice, and two scales to measure competence across these domains. There is both an observer rated version (the COPPR-O) for supervisors and assessors to rate trainee/supervisee performance, and a self-report version (the COPPR-S) for practitioners to self-assess their competence. The items in both of these versions are the same, with only the instructions differing (specifying “you/your” in the self-report version and “your trainee” in the observer version). This consistency in item wording enables comparisons between the two versions to be made, such as where a trainee or supervisee completes

the self-report version and the supervisor completes the observer version, and their ratings can be discussed and compared in supervision. Together, these two versions of the COPPR Scales provide an essential tool for a multitude of applications for practice, education and research contexts. In particular, the COPPR-S has demonstrated utility in student self-report of competence developed on placement (Shelley et al., 2024). The COPPR-O has demonstrated utility for supervisors in assessing the development of competence across placement in an accredited, post-graduate professional psychology course (Rice et al., in review). Beyond training, the COPPR-S also enables practitioners to self-reflect on their competence across all domains of practice within a structured self-assessment (Banner et al., in review).

Collectively, the COPPR Scales are designed for use across the career trajectory, from the early stages of skill development during training and placement, through to later stages of the career. Towards this goal, the response format for the COPPR Scales extend beyond “competent”, to include “proficient” and “expert” ratings. This is consistent with the seminal work of Dreyfus and Dreyfus (1980) in their stages of competence model, where skills need to be assessed within practitioners’ developmental stage. Based on this stage of competence framework, it is expected that practitioner competencies follow a developmental route, from beginner to advanced beginner, then competent, proficient and expert (Gonsalvez et al., 2016; Gonsalvez & Calvert, 2014). Here, it is assumed that competence in any one domain is dynamic rather than static, and infers that practitioners’ performance on a skill can develop, and also fluctuate, throughout their career (Rodolfa et al., 2013). This is consistent with the “Threshold professional competency” benchmark that has been adopted by AHPRA, which is “based on the premise that competency can be described on a continuum. The threshold represents the point on the continuum at which the minimum acceptable level of competence is reached to practise safely and effectively as a psychologist” (Australian Health Practitioner Regulation Authority, 2024b, p. 3).

Thus, the COPPR-S was designed to provide a vital tool for practitioners to continue to evaluate and monitor their own competence. Structured measures are needed to facilitate self-assessment throughout the career trajectory (Hatcher et al., 2013), as “without reviewing and assessing their own practice, therapists risk becoming increasingly incompetent without being aware of it” (Loades & Myles, 2016, p. 3). In the absence of standardised assessment tools, practitioners must

rely solely on unstructured self-reflection, which “is problematic as the effectiveness of self-reflection is variable and subjective, and may not cover the full scope of psychological competencies” (Rice et al., 2022, p. 4). Furthermore, self-assessment is a central strategy for practitioners to achieve and maintain competence, facilitate positive client outcomes, and identify continuing professional development needs (Banner et al., 2023; Loades & Myles, 2016). Indeed, the Psychology Board of Australia has recognised the crucial role of self-assessment across all professional competencies for psychology, and have released a Fact Sheet to facilitate practitioner self-evaluation (Australian Health Practitioner Regulation Authority, 2024b). The COPPR-S provides a standardised assessment tool for psychologists to self-evaluate their competence across multiple domains of practice throughout the career, enabling practitioners to assess change over time.

The development and initial validation of the COPPR Scales is outlined in Rice et al. (2022). The domains and items were created thematically from the APAC Standards (Level 3; 2019), modified and endorsed by expert review. This process resulted in the classification of 11 domains of competence: *Scientist-Practitioner*, *Cultural Responsiveness*, *Working across the Lifespan*, *Professional Communication and Liaison*, *Clinical Interviewing*, *Counselling Micro-Skills*, *Formulation and Diagnosis*, *Assessment*, *Intervention*, *Ethics*, and *Self-Reflective Practice*. Content validity was assessed in a pre-test phase, and a pilot test provided an initial validation for the measure, including convergent and divergent validity, and the ability to discriminate between participants who were early in their career (i.e., provisionally registered) versus those who were later in their career (i.e., held general registration). Higher scores on the COPPR-S were found to be significantly positively associated with more years of practice. Thus, the COPPR-S demonstrated promising initial results on the pilot test. However, a more extensive psychometric evaluation of the COPPR-S is needed, and the thematically-derived factor structure of the measure needs to be validated.

The present study

The COPPR Scales provide a competency framework and measure of registered psychologist competence in Australia, based on the (APAC Standards (Level 3; 2019). The aim of this study was to assess the psychometric properties of the COPPR. Following on from the development and initial pilot test of the COPPR Scales, outlined above and reported in Rice et al. (2022), the

present study aimed to psychometrically assess the self-report version of the scale (the COPPR-S), with a sample of Australian practitioners.

Method

Boateng et al. (2018) scale development guidelines provide three phases of item development, scale development, and scale evaluation. This paper builds on the first two stages of item and scale development that are outlined in the COPPR development paper (see Rice et al., 2022), and presents the psychometric evaluation of the COPPR-S scale. As per Boateng et al. (2018) best practice guidelines, scale evaluation consists of testing dimensionality, reliability and validity.

Participants

Psychologists who held either provisional or general registration were eligible to participate. Of the 211 participants, 38.4% (81) held general registration, 18% (38) provisional registration, 33.2% (70) had at least one area of practice endorsement (e.g., clinical, forensic, educational), and 10.4% (22) were completing a pathway to endorsement. In regards to cultural background, 1.9% (4) of participants identified as Aboriginal Australians, 6.6% (14) identified as culturally and linguistically diverse, and 2.4% (5) advised they would rather not say. All other respondents (88.6%; 187) indicated they did not identify as Aboriginal, Torres Strait Islander or culturally and linguistically diverse. This sample was mostly female, with 82.5% (174) identifying as female, 16.1% (34) identifying as male, 0.5% (1) identifying as non-binary or gender diverse, and 0.9% (2) preferring not to say. Participants worked broadly across multiple areas including in private practice ($n = 68$, 32.23%), hospital settings ($n = 47$, 22.27%), government organisations ($n = 37$, 17.54%), academic settings ($n = 22$, 10.43%), in non-government organisations ($n = 17$, 8.06%) and other settings ($n = 20$, 9.48%). Experience varied across the sample, with participants reported having held registration from 0 to 39 years, with a mean of 11.4 years ($SD = 9.4$).

Procedure

The survey was hosted on the Qualtrics™ (2022; Provo, UT) platform. Following approval from the University Human Research Ethics Committee, the survey was promoted through various channels (e.g., a dedicated webpage). Registered psychologists at any stage of their career were eligible to participate, and provided informed consent before entering the electronic

survey. At the completion of the survey participants were able to choose to obtain an optional certificate of completion for professional development records. The survey calculated and presented the mean item scores for the COPPR-S domains for each respondent. Participants were able to take a copy of these mean item scores across each domain for their professional development and self-reflection, and to enable them to assess changes in their own scores across time.

Materials

Competencies of Professional Psychology Rating Scales (COPPR Scales; Rice et al., 2022)

As outlined above, the COPPR Scales are a measure of professional psychology competencies based on the Australian Psychology Accreditation Council (2019) Level 3 standards for registered psychologists. There is a self-report version (COPPR-S) for practitioner self-assessment, and an observer version (COPPR-O) for educators and supervisor use. To enable comparisons between the two versions, the items and response scale on each version are exactly the same, with only the instruction distinguishing the two versions, based on assessing the “self” or the “trainee”. The COPPR Scales consist of 81 items across 11 domains of *Scientist-Practitioner*, *Cultural Responsiveness*, *Working across the Lifespan*, *Professional Communication and Liaison*, *Clinical Interviewing*, *Counselling Micro-Skills*, *Formulation and Diagnosis*, *Assessment*, *Intervention*, *Ethics*, and *Self-Reflective Practice*. Items are rated using a 7-point Likert scale, ranging from 1 (Not Yet Competent), to 7 (Expert), with detailed descriptors provided for each rating point in order to increase

consistency and accuracy in ratings (see Figure 1). The subscales can be used separately, with mean item scores, and a total score can be calculated from the sum of responses on all items. The COPPR-S is employed in this study, as psychologist self-assessment of competence is the focus. The initial psychometric properties of the COPPR-S were assessed in a pilot study, where strong internal consistency and validity were found (see Rice et al., 2022). The psychometric properties from this sample are the focus of this study, and are presented in the Results section. The items are presented below, in Figure 2.

The Psychologist and Counsellor Self-efficacy Scale

(PCES; Watt et al., 2019) was included to assess convergent validity. The PCES is a 31-item scale that assesses perceived self-efficacy across a range of competencies that are central to the role of a counsellor or psychologist, including research, ethics, intervention, assessment and measurement, and legal matters. The PCES items are rated on a 5-point Likert scale, where 1 = not at all confident, 5 = extremely confident, rendering a possible range of 31–155 for the total score, with higher scores representing greater self-efficacy and perceived competence. The PCES total score has demonstrated excellent internal consistency in previous research (e.g., $\alpha = .97$, Cosh et al., 2021), and in this study ($\alpha = .95$).

The Career Futures Inventory

(CFI; Rottinghaus et al., 2005) has been shortened to a nine-item short form (CFI-9; McIlveen et al., 2013),

Not yet Competent 1	Beginner 2	Advanced Beginner 3	Competent 4	Proficient 5	Advanced 6	Expert 7
Not yet demonstrated appropriately	Demonstrated but beginning stage of development; Numerous inconsistencies and inaccuracies in performing this skill.	Demonstrated but early stage of development. Some inconsistencies and inaccuracies in performing this skill.	Demonstrated meeting standard for competence. No inconsistencies or inaccuracies in performing this skill.	Demonstrated above standard competence for this skill. More accomplished and practiced, demonstrated with ease.	Demonstrated competence as exceeding standard with fluency, accuracy and finesse	Demonstrated proficiency as expected of a very highly experienced registered psychologist. Stand out in the field in performing this skill. Demonstrates outstanding knowledge, skill and delivery of this competence. Very few students achieve this rating.

Figure 1. 7-point likert scale with behavioural anchors for the COPPR (Rice et al., 2022) scales. *Instructions:* please use the following scale to rate level of competence for each item. competence is defined as the level expected of a registered psychologist (rating = 4). *Notes.* The items are presented in Figure 2. Please note that the items and the response scale are the same for the two versions of the COPPR, with different instructions. (Figure first published in Rice et al., 2022, and used with permission).

Competencies of Professional Psychology Rating Scales (COPPR)

Note: There are two versions of the COPPR: 1) COPPR-Self Report (COPPR-S), and 2) COPPR-Observer (COPPR-O). The items are identical for these two versions, and the only difference is the instructions:

- For the COPPR-Self Report (COPPR-S), to use this measure for practitioner self-reflection, please use the “you/your” instructions for each domain.
- For the COPPR-Observer Report (COPPR-O), to use this measure to rate a trainee or other practitioner, please use the “your trainee” instructions for each domain.

Instructions: Please use the following scale to rate level of competence for each item. Competence is defined as the level expected of a registered psychologist for each skill (Rating = 4).

You will notice that the corresponding score for the "standard for competence" is 4. It is expected that psychologists will endorse different levels across different domains of competency, and that psychologists will not always be competent in every item of each domain.

Not yet Competent	Beginner	Advanced Beginner	Competent	Proficient	Advanced	Expert
1	2	3	4	5	6	7
Not yet demonstrated appropriately.	Demonstrated but beginning stage of development; Numerous inconsistencies and inaccuracies in performing this skill.	Demonstrated but early stage of development. Some inconsistencies and inaccuracies in performing this skill.	Demonstrated meeting standard for competence. No inconsistencies or inaccuracies in performing this skill.	Demonstrate.d above standard competence for this skill. More accomplished and practiced, demonstrated with ease.	Demonstrated competence as exceeding standard with fluency, accuracy and finesse.	Demonstrated proficiency as expected of a very highly experienced registered psychologist. Stand out in the field in performing this skill. Demonstrates outstanding knowledge, skill and delivery of this competence. Very few students achieve this rating.

Scientist Practitioner: This section refers to **your / your trainee's** ability to work effectively as a scientist-practitioner. Please rate the extent to which **you / your trainee** currently:

1. use scientific-literature to support practice	1	2	3	4	5	6	7
2. select the most suitable evidence-based methods for individual client presentations	1	2	3	4	5	6	7
3. apply evidence-based methods validly and appropriately	1	2	3	4	5	6	7

Average item score for the *Scientist Practitioner* subscale (total of items 1-3, divided by 3)

Working Across the Lifespan: This section refers to your / your trainee's ability to work effectively across the lifespan. Please rate your / your trainee's current abilities working with all client groups, including:

4. children & adolescents	1	2	3	4	5	6	7
5. adults	1	2	3	4	5	6	7
6. older adults	1	2	3	4	5	6	7
7. socially diverse clients	1	2	3	4	5	6	7

Average item score for the *Working Across the Lifespan* subscale (total of items 4-7, divided by 4)

Figure 2. (Continued).

Cultural Responsiveness: This section refers to your trainee's ability to work in a culturally responsive manner. Please rate your trainee's current ability to:							
8. recognise cultural differences	1	2	3	4	5	6	7
9. respond appropriately to cultural diversity	1	2	3	4	5	6	7
10. work effectively with culturally and socially diverse clients	1	2	3	4	5	6	7
11. use the client's cultural context to inform holistic case formulations	1	2	3	4	5	6	7
12. adapt assessment and treatment strategies appropriately in a culturally responsive manner	1	2	3	4	5	6	7
13. use culturally responsive and respectful communication	1	2	3	4	5	6	7
Average item score for the <i>Cultural Responsiveness</i> subscale (total of items 8-13, divided by 6)							
Professional Communication and Liaison Skills: This section refers to your / your trainee's ability to communicate effectively and liaise with other professionals. Please rate your trainee's current ability to:							
14. use appropriate verbal communication style for the setting and audience	1	2	3	4	5	6	7
15. produce professional and appropriate written communications, including clinical notes, referral letters and other written material	1	2	3	4	5	6	7
16. communicate findings appropriately both verbally and in formal psychological reports tailored to the needs of the audience	1	2	3	4	5	6	7
17. use culturally appropriate expression	1	2	3	4	5	6	7
18. recognise & respond appropriately to the skills and contribution of other professionals	1	2	3	4	5	6	7
19. collaborate with colleagues, multi-disciplinary professionals and support staff in an effective way	1	2	3	4	5	6	7
20. communicate within ethical and legal limitations	1	2	3	4	5	6	7
21. consult peers, supervisor or others as needed	1	2	3	4	5	6	7
Average item score for the <i>Professional Communication and Liaison Skills</i> subscale (total of items 14-21, divided by 8)							
Counselling Micro-skills: This section refers to your / your trainee's ability to utilise counselling microskills effectively. Please rate your / your trainee's current ability to:							
22. actively listen and attend to clients	1	2	3	4	5	6	7
23. use a variety of questioning techniques effectively	1	2	3	4	5	6	7
24. display empathy	1	2	3	4	5	6	7
25. reflect content effectively including paraphrasing and summarising	1	2	3	4	5	6	7
26. reflect emotion and validate appropriately	1	2	3	4	5	6	7
27. ensure micro-skills are culturally responsive	1	2	3	4	5	6	7
28. display appropriate body language	1	2	3	4	5	6	7
29. identify and respond to client body language appropriately	1	2	3	4	5	6	7
Average item score for the <i>Counselling Microskills</i> subscale (total of items 22-29, divided by 8)							
Clinical Interviewing: This section refers to your / your trainee's ability to conduct professional interviews. Please rate your / your trainee's current ability to:							
30. gain informed consent with clients	1	2	3	4	5	6	7
31. appropriately structure sessions	1	2	3	4	5	6	7
32. set appropriate goals with clients	1	2	3	4	5	6	7
33. complete initial intake interviews, including gathering the history of presenting problems	1	2	3	4	5	6	7
34. facilitate effective second and subsequent sessions	1	2	3	4	5	6	7
35. develop and maintain collaborative rapport	1	2	3	4	5	6	7
36. respond appropriately to the presenting problems	1	2	3	4	5	6	7
37. recognise and respond effectively to ruptures in the therapeutic relationship	1	2	3	4	5	6	7
38. end sessions appropriately (including homework, follow up plans, further appointments or referrals etc)	1	2	3	4	5	6	7
Average item score for the <i>Assessment</i> subscale (total of items 30-38, divided by 9)							

Figure 2. (Continued).

Formulation and Diagnosis: This section refers to your / your trainee's ability to apply case formulation and diagnosis. Please rate your / your trainee's current ability to:							
39. correctly identify psychological disorders	1	2	3	4	5	6	7
40. develop an accurate and collaborative formulation of presenting issues	1	2	3	4	5	6	7
41. incorporate multiple sources of information in formulation and diagnosis	1	2	3	4	5	6	7
42. utilise case formulation and diagnosis to inform the selection of interventions	1	2	3	4	5	6	7
43. monitor and review case formulations	1	2	3	4	5	6	7
44. construct case formulations that consider the client holistically within their wider context	1	2	3	4	5	6	7
45. integrate information from multiple sources and multiple assessment methods into the formulation and diagnosis	1	2	3	4	5	6	7
Average item score for the <i>Formulation and Diagnosis</i> subscale (total of items 39-45, divided by 7)							
Assessment: This section refers to your / your trainee's ability to perform psychological assessment, including risk management. Please rate your / your trainee's current ability to:							
46. select valid, reliable and current psychometric measures that directly relate to the case formulation	1	2	3	4	5	6	7
47. undertake standardised psychological testing appropriately, while maintaining rapport	1	2	3	4	5	6	7
48. interpret the findings of psychological assessment accurately	1	2	3	4	5	6	7
49. assess various aspects of functioning (for example, cognitive, behaviour, cognition, psychopathology, emotion, etc)	1	2	3	4	5	6	7
50. obtain and integrate information from multiple assessment methods and multiple sources	1	2	3	4	5	6	7
Conduct a thorough assessment of risk including:							
51. risk of harm to self	1	2	3	4	5	6	7
52. risk of harm to others	1	2	3	4	5	6	7
53. ability to determine risk level accurately	1	2	3	4	5	6	7
54. ability to manage risk appropriately for the client and the work setting	1	2	3	4	5	6	7
55. ability to monitor and review risk levels	1	2	3	4	5	6	7
Average item score for the <i>Assessment</i> subscale (total of items 46-55, divided by 10)							
Intervention: This section refers to your / your trainee's ability to conduct psychological intervention. Please rate your / your trainee's current ability to:							
56. select appropriate evidence-based interventions for clients and their presenting issues	1	2	3	4	5	6	7
57. develop collaborative treatment plans with clients	1	2	3	4	5	6	7
58. ensure interventions are appropriate for each client within their wider context	1	2	3	4	5	6	7
59. implement evidence-based interventions appropriately	1	2	3	4	5	6	7
60. monitor and respond appropriately to challenges in intervention	1	2	3	4	5	6	7
61. monitor clients' progress and intervention outcomes	1	2	3	4	5	6	7
62. review and modify interventions based on ongoing case formulation and client progress	1	2	3	4	5	6	7
Average item score for the <i>Intervention</i> subscale (total of items 56-62, divided by 7)							

Figure 2. (Continued).

Ethics: This section refers to your / your trainee's ability to practice within legal and ethical boundaries. Please rate your / your trainee's current ability to:							
63. comply with legal and ethical requirements for Psychologists in practice	1	2	3	4	5	6	7
64. apply workplace policies and procedures effectively	1	2	3	4	5	6	7
65. conduct appropriate ethical problem solving and ethical decision making when faced with dilemmas	1	2	3	4	5	6	7
66. use best practice record-keeping	1	2	3	4	5	6	7
67. manage referral processes within ethical guidelines	1	2	3	4	5	6	7
68. ensure confidentiality is maintained within ethical requirements	1	2	3	4	5	6	7
69. comprehensively obtain informed consent prior to every appointment	1	2	3	4	5	6	7
70. only practice within areas of professional competence	1	2	3	4	5	6	7
71. appropriately seek consultation with supervisor or peers as needed and within a timely manner	1	2	3	4	5	6	7
72. appropriately refer to other clinicians, professionals or services as needed	1	2	3	4	5	6	7
73. communicate and collaborate effectively within legal and ethical guidelines	1	2	3	4	5	6	7
Average item score for the <i>Ethics</i> subscale (total of items 63-73, divided by 11)							
Self-Reflective Practice: This section refers to your / your trainee's ability to engage in self-reflective practice. Please rate your / your trainee's ability to:							
74. engage in effective self-reflection	1	2	3	4	5	6	7
75. evaluate your strengths and recognise areas for improvement of own practice	1	2	3	4	5	6	7
76. identify your own values and beliefs, and the effect these have on your practice	1	2	3	4	5	6	7
77. implement appropriate action plans to address outcomes of your self-reflection	1	2	3	4	5	6	7
78. Modify your professional practice based on the outcomes of your self-reflection	1	2	3	4	5	6	7
79. utilise supervision to develop self-reflective practice	1	2	3	4	5	6	7
80. respond appropriately to supervisor feedback	1	2	3	4	5	6	7
81. modify your practice in response to supervision	1	2	3	4	5	6	7
Average item score for the <i>Self-Reflective Practice</i> subscale (total of items 74-81, divided by 8)							
Average item score for the Total Score of the <i>COPPR-S</i> subscale (total of all items, divided by 81)							
SCORING: Average item scores for each subscale and the total score, with a range of 1 to 7, can be interpreted within the response format (where 4 = the threshold for competence as a psychologist).							

Figure 2. Response form for the COPPR Scales. *All uses of this scale must cite this manuscript:* Rice, K., Banner, S. E., Schutte, N., & Rock, A. J. (2025). A competency framework and measure for psychologists: The psychometric assessment of the Competencies of Professional Psychology Rating (COPPR) Scales. *Australian Journal of Psychology*. <https://doi.org/10.1080/00049530.2025.2457528>.

with three *ethics* each assessing the original subscales of Career Optimism, Career Adaptability and Perceived Career Knowledge. The Perceived Career Knowledge subscale was included in this study as a divergent validity measure, as this knowledge-based construct is related to awareness of employment trends and career prospects, and is distinct from competency-based assessment of professional competencies and clinical skills. A Cronbach's alpha of .86 for Perceived Career Knowledge has been calculated for the short version, demonstrating

strong internal consistency (McIlveen et al., 2013). In this sample, a Cronbach's alpha of .82 was found, corroborating earlier indications of strong internal consistency.

Analysis

This study first aimed to test dimensionality of the COPPR-S, to assess if the latent constructs were as hypothesized (Boateng et al., 2018). Confirmatory factor analysis (CFA) was conducted to assess the pre-

existing *a priori* hypothesis of the factor structure and subscales (Kääriäinen et al., 2011). The sample size of $N = 211$ is rated *fair* by Comrey and Lee's (1992) guidelines, and within acceptable limits based on an absolute criterion of 200 (Hair et al., 2010; Kline, 2016). While higher sample sizes are desirable for factor analysis, smaller sample sizes are allowable where there are strong inter-item correlations (Tabachnick & Fidell, 2019). Thus, given the combination of the acceptability of the sample size based on the criterion method (Kline, 2016), and the high correlations between the items (Tabachnick & Fidell, 2019), the sample size in the current study was deemed adequate for CFA. Secondly, this study aimed to test internal consistency on the whole measure (i.e., all of the items) and the subscales. Thirdly, this study aimed to assess convergent and divergent validity, and assess if the measure was able to differentiate between career stages.

Results

Confirmatory factor analysis

Maximum likelihood CFA tested the fit of the 11-factor structure as initially thematically developed by Rice et al. (2022) based on the APAC Level 3 standards. Model fit was assessed through review of relevant indices, including the Root Mean Square Error of Approximation (RMSEA) whereby an RMSEA with an upper value of 0.08 indicates sound fit (Hooper et al., 2008), the Chi-Square ratio statistic whereby a ratio ≤ 2 indicates acceptable fit (Tabachnick & Fidell, 2019), the Standardised Root Mean Square Residual (SRMR) where an SRMR less than 0.08 indicates acceptable fit (Kyndt & Onghena, 2014), the Comparative Fit Index (CFI) where a CFI of 0.90 indicates acceptable fit (Iacobucci, 2010) and the Tucker-Lewis Index (TLI) where 0.90 indicates acceptable fit (Kyndt & Onghena, 2014).

Initial analysis of the measure supported the model fit of the 11-factor structure, the SRMR value of 0.05 and the RMSEA value of 0.07 (95% CI [0.07, 0.08]) both indicating acceptable fit. Review of other fit indices including the Chi-Square ratio, CFI and TLI were all approaching acceptable fit, including Chi-square ratio of 2.18 ($\chi^2 = 6770$, $df = 3104$, $p < .001$), CFI of 0.85 and TLI of 0.85. However, a review of the specific items identified residual covariance in certain items within a factor. As a result, analysis followed a sequential process of model improvement through reviewing items with residual covariance and, where appropriate, controlling for this before further analysing and

reviewing. With each analysis, the items with highest residual covariance were identified and the researchers then considered whether there was sufficient theoretical overlap in the items to justify controlling the residual covariance. These covariances were then controlled across each analysis until the final analysis of the model. The items are presented in Figure 2.

At first analysis, the residual covariance between within-scale items was highest between items two and three of Assessment ($\Sigma_{res} = 105.15$), and so the second analysis controlled the residual covariance between these items. There was slight improvement across all model fit indices (Chi-Square Ratio = 2.136 ($\chi^2 = 6629$, $df = 3103$, $p < .001$); RMSEA = 0.07 (95% CI [0.07, 0.08], SRMR = 0.05, CFI = 0.90, TLI = 0.85). However, residual covariance remained high for items four and five of the Assessment subscale ($= 91.98$), and so this was controlled for in the third analysis. When controlling for the residual covariance in these two pairs of items for the third analysis, the model fit improved again (Chi-Square Ratio = 2.099 ($\chi^2 = 6512$, $df = 3102$, $p < .001$); RMSEA = 0.072 (95% CI [0.07, 0.08], SRMR = 0.05, CFI = 0.86, TLI = 0.86). However, residual covariance between items seven and eight on the Self-Reflective Practice subscale were high at 82.67 and given the conceptual overlap in these items they were controlled in the fourth analysis, which again improved model fit indices (Chi-Square Ratio = 2.071 ($\chi^2 = 6422$, $df = 3101$, $p < .001$); RMSEA = 0.07 (95% CI [0.068, 0.074], SRMR = 0.05, CFI = 0.868, TLI = 0.862). Residual covariance between items three and seven of the Formulation subscale remained high at 51.57 and these items were considered to have sufficient theoretical overlap to be controlled in the fifth analysis. Model indices continued to improve in the fifth analysis (Chi-Square Ratio = 2.06 ($\chi^2 = 6369$, $df = 3100$, $p < .001$); RMSEA = 0.07 (95% CI [0.0682, 0.074], SRMR = 0.05, CFI = 0.87, TLI = 0.86). Items six and seven on the Intervention subscale had high residual covariance of 40.91 and, due to the conceptual overlap in items, were controlled in the sixth and final analysis of the model. The final model demonstrated acceptable model fit as indicated by the Chi-Square ratio (2.04, $\chi^2 = 6328$, $df = 3099$, $p < .001$), RMSEA (0.07, 95% CI [0.067, 0.073]) and SRMR (0.05), and the TLI and CFI both approached 0.9 (CFI = 0.87, TLI = 0.87). Upon reviewing specific item covariance, there were no further items that warranted controlling and it was deemed that the 11-factor model was a good fit when controlling for the above five pairs of items. The factor loadings are presented in Tables 1, and 2 presents the covariances.

Table 1. Factor loadings for final Model.

Factor	Indicator	Estimate	SE	95% Confidence Interval		Z	p	Stand. Estimate
				Lower	Upper			
Scientist Practitioner	SP_1	0.87	0.07	0.73	1.01	12.31	<.001	0.75
	SP_2	0.99	0.06	0.87	1.11	15.83	<.001	0.89
	SP_3	0.93	0.06	0.81	1.05	15.09	<.001	0.86
Lifespan	WATL_1	0.61	0.11	0.40	0.83	5.69	<.001	0.39
	WATL_2	0.97	0.07	0.83	1.11	13.46	<.001	0.79
	WATL_3	0.85	0.09	0.67	1.03	9.23	<.001	0.59
	WATL_4	1.11	0.08	0.96	1.26	14.75	<.001	0.84
Cultural Responsiveness	CR_1	1.09	0.07	0.95	1.23	15.61	<.001	0.86
	CR_2	1.13	0.06	1.01	1.25	18.28	<.001	0.94
	CR_3	1.13	0.07	1.00	1.26	17.11	<.001	0.91
	CR_4	1.08	0.07	0.95	1.21	16.19	<.001	0.88
	CR_5	1.16	0.07	1.03	1.30	17.28	<.001	0.91
	CR_6	1.07	0.06	0.94	1.19	16.79	<.001	0.90
Professional Communication & Liaison Skills	PCLS_1	0.92	0.06	0.80	1.03	15.55	<.001	0.86
	PCLS_2	0.94	0.06	0.82	1.06	15.26	<.001	0.85
	PCLS_3	0.95	0.06	0.82	1.07	14.57	<.001	0.82
	PCLS_4	0.87	0.07	0.74	1.01	12.61	<.001	0.75
	PCLS_5	0.93	0.06	0.81	1.04	16.14	<.001	0.88
	PCLS_6	0.99	0.06	0.87	1.11	16.28	<.001	0.88
	PCLS_7	1.02	0.06	0.89	1.14	16.21	<.001	0.88
	PCLS_8	0.89	0.06	0.77	1.01	14.22	<.001	0.81
Counselling Microskills	CMS_1	0.99	0.06	0.87	1.10	16.88	<.001	0.90
	CMS_2	1.01	0.06	0.89	1.13	16.51	<.001	0.89
	CMS_3	0.97	0.06	0.85	1.09	16.08	<.001	0.88
	CMS_4	0.98	0.06	0.86	1.10	16.15	<.001	0.88
	CMS_5	1.03	0.06	0.91	1.14	17.49	<.001	0.92
	CMS_6	1.00	0.07	0.86	1.15	13.61	<.001	0.79
	CMS_7	1.06	0.06	0.94	1.18	17.28	<.001	0.91
	CMS_8	1.13	0.06	1.01	1.26	17.49	<.001	0.92
Clinical Interviewing	CI_1	0.94	0.06	0.82	1.07	14.74	<.001	0.83
	CI_2	1.03	0.07	0.89	1.16	14.82	<.001	0.83
	CI_3	1.12	0.07	0.99	1.25	16.88	<.001	0.90
	CI_4	1.07	0.07	0.95	1.20	16.47	<.001	0.89
	CI_5	1.14	0.07	1.01	1.27	17.43	<.001	0.92
	CI_6	0.95	0.06	0.83	1.06	15.60	<.001	0.86
	CI_7	1.07	0.06	0.96	1.19	18.26	<.001	0.94
	CI_8	1.05	0.07	0.92	1.18	15.59	<.001	0.86
	CI_9	1.11	0.07	0.97	1.24	16.31	<.001	0.88
Formulation	F_1	1.20	0.07	1.07	1.34	16.99	<.001	0.90
	F_2	1.12	0.06	0.99	1.24	17.63	<.001	0.92
	F_3	1.09	0.07	0.96	1.22	16.55	<.001	0.89
	F_4	1.17	0.07	1.04	1.30	17.90	<.001	0.93
	F_5	1.11	0.07	0.98	1.24	17.00	<.001	0.90
	F_6	1.10	0.06	0.97	1.22	16.96	<.001	0.90
	F_7	1.12	0.07	0.98	1.25	16.12	<.001	0.88
Assessment	A_1	0.82	0.08	0.67	0.97	10.74	<.001	0.66
	A_2	0.77	0.07	0.62	0.91	10.53	<.001	0.65
	A_3	0.83	0.07	0.69	0.97	11.58	<.001	0.70
	A_4	0.91	0.08	0.76	1.06	11.83	<.001	0.71
	A_5	0.88	0.08	0.73	1.03	11.58	<.001	0.70
	A_6	1.15	0.06	1.03	1.27	18.20	<.001	0.94
	A_7	1.25	0.07	1.11	1.39	17.74	<.001	0.93
	A_8	1.13	0.06	1.01	1.26	17.91	<.001	0.93
	A_9	1.18	0.06	1.06	1.31	18.51	<.001	0.95
	A_10	1.18	0.07	1.05	1.31	17.83	<.001	0.93

(Continued)

Table 1. (Continued).

Factor	Indicator	Estimate	SE	95% Confidence Interval		Z	p	Stand. Estimate
				Lower	Upper			
Intervention	I_1	1.02	0.06	0.90	1.14	16.74	<.001	0.90
	I_2	1.13	0.07	1.00	1.25	17.31	<.001	0.91
	I_3	1.13	0.06	1.00	1.25	18.24	<.001	0.94
	I_4	1.10	0.06	0.98	1.23	17.91	<.001	0.93
	I_5	1.13	0.07	1.00	1.26	16.91	<.001	0.90
	I_6	1.10	0.07	0.97	1.23	16.67	<.001	0.89
	I_7	1.10	0.06	0.98	1.23	17.27	<.001	0.91
Ethics	E_11	1.14	0.06	1.02	1.26	18.34	<.001	0.94
	E_10	1.14	0.07	1.00	1.27	16.58	<.001	0.89
	E_9	1.06	0.07	0.93	1.19	15.82	<.001	0.87
	E_8	1.14	0.07	1.00	1.28	15.83	<.001	0.87
	E_7	0.85	0.09	0.67	1.02	9.67	<.001	0.61
	E_6	1.12	0.06	0.99	1.24	17.68	<.001	0.92
	E_5	1.13	0.06	1.00	1.26	17.56	<.001	0.92
	E_4	0.93	0.07	0.81	1.06	14.15	<.001	0.80
	E_3	1.16	0.07	1.03	1.29	17.81	<.001	0.93
Self-Reflective Practice	E_2	1.10	0.06	0.97	1.23	17.01	<.001	0.90
	E_1	1.16	0.06	1.04	1.29	18.05	<.001	0.93
	SRP_8	0.93	0.06	0.82	1.05	15.69	<.001	0.86
	SRP_7	0.98	0.06	0.86	1.10	15.66	<.001	0.86
	SRP_6	0.97	0.06	0.84	1.09	14.94	<.001	0.84
	SRP_5	1.13	0.06	1.01	1.26	17.88	<.001	0.93
	SRP_4	1.05	0.06	0.93	1.18	16.51	<.001	0.89
	SRP_3	1.06	0.06	0.93	1.18	16.27	<.001	0.88
	SRP_2	1.12	0.06	1.00	1.24	17.80	<.001	0.93
SRP_1	1.02	0.06	0.90	1.14	16.73	<.001	0.90	

Reliability

Internal consistency was tested for the whole measure (i.e., all of the items), and each of the 11 subscales, using Cronbach's alpha. Scores of $\alpha < .60$ indicated poor reliability, $.60$ – $.70$ questionable reliability, $.70$ – $.80$ acceptable reliability, $.80$ – $.90$ good reliability and $\geq .90$ excellent reliability (George & Mallery, 2003). All subscales demonstrated good to excellent reliability, with the exception of Working Across the Lifespan Subscale which demonstrated questionable reliability (See Table 3). Given that the four items of this subscale identify four different client groups (e.g., working with children, and working with older adults), it follows that there may not be overlap in item responses for this subscale in the same way there is in other subscales with a common theme. The whole measure demonstrated excellent reliability.

Validity

To assess convergent validity, the correlation between the COPPR total score and the PCES (Watt et al., 2019) was calculated. As 188 participants completed both the

COPPR-S and the PCSES, listwise deletion was used as the sample size was sufficient and it was reasonable to assume that the data was missing completely at random (MCAR) rather than due to any other variable which may affect the correlation (Kang, 2013). The mean score total score on the COPPR-S for those participants who completed both measures was 413.7 ($SD = 80.1$) and the mean total score on the PCSES was 116.6 ($SD = 16.7$). The correlation between these two total scores was positive and significant ($df = 186$, $r = .79$, 95% CI $[.72, .84]$, $p < .001$), with the strong correlation (Schober et al., 2018) indicating strong convergent validity.

To assess divergent validity, the association between the COPPR total score and the Perceived Knowledge subscale of the CFI-9 (McIlveen et al., 2013) was calculated. One hundred and eighty-seven participants completed both the COPPR-S ($M = 414.0$, $SD = 80.2$) and the Perceived Knowledge subscale of the CFI ($M = 9.2$, $SD = 2.6$). The correlation between these two total scores was positive and significant ($df = 185$, $r = .19$, CI $[.05, .33]$, $p = .008$). It follows that some correlation would be anticipated between the constructs of career knowledge and psychological competencies; however, the weak correlation (Schober et al.,

Table 2. Factor covariances for final Model.

		Estimate	SE	95% Confidence Interval		Z	p	Stand. Estimate
				Lower	Upper			
Scientist Practitioner	Scientist Practitioner	1.00 ^a						
	Lifespan	0.84	0.04	0.77	0.91	23.60	<.001	0.84
	Cultural Responsiveness	0.69	0.04	0.61	0.78	16.47	<.001	0.69
	Professional Communication & Liaison Skills	0.80	0.03	0.74	0.86	25.52	<.001	0.80
	Counselling Microskills	0.73	0.04	0.65	0.80	18.79	<.001	0.73
	Clinical Interviewing	0.80	0.03	0.74	0.86	25.59	<.001	0.80
	Formulation	0.83	0.03	0.78	0.88	29.97	<.001	0.83
	Assessment	0.76	0.03	0.70	0.83	22.03	<.001	0.76
	Intervention	0.80	0.03	0.74	0.86	25.46	<.001	0.80
Lifespan	Ethics	0.77	0.03	0.70	0.83	22.72	<.001	0.77
	Self-Reflective Practice	0.72	0.04	0.64	0.80	18.39	<.001	0.72
	Lifespan	1.00 ^a						
	Cultural Responsiveness	0.94	0.02	0.90	0.98	46.76	<.001	0.94
	Professional Communication & Liaison Skills	0.91	0.02	0.87	0.96	38.91	<.001	0.91
	Counselling Microskills	0.84	0.03	0.79	0.90	27.95	<.001	0.84
	Clinical Interviewing	0.83	0.03	0.76	0.89	24.98	<.001	0.83
	Formulation	0.85	0.03	0.78	0.91	27.40	<.001	0.85
	Assessment	0.83	0.03	0.77	0.89	26.88	<.001	0.83
Cultural Responsiveness	Intervention	0.87	0.03	0.81	0.92	31.30	<.001	0.87
	Ethics	0.87	0.03	0.82	0.92	33.44	<.001	0.87
	Self-Reflective Practice	0.81	0.03	0.75	0.88	24.51	<.001	0.81
	Cultural Responsiveness	1.00 ^a						
	Professional Communication & Liaison Skills	0.79	0.03	0.73	0.85	27.07	<.001	0.79
	Counselling Microskills	0.75	0.03	0.69	0.82	23.24	<.001	0.75
	Clinical Interviewing	0.71	0.04	0.64	0.79	19.85	<.001	0.71
	Formulation	0.76	0.03	0.69	0.82	23.46	<.001	0.76
	Assessment	0.72	0.04	0.65	0.79	20.63	<.001	0.72
Professional Communication & Liaison Skills	Intervention	0.77	0.03	0.71	0.83	25.44	<.001	0.77
	Ethics	0.77	0.03	0.71	0.83	25.73	<.001	0.77
	Self-Reflective Practice	0.77	0.03	0.71	0.83	25.72	<.001	0.77
	Professional Communication & Liaison Skills	1.00 ^a						
	Counselling Microskills	0.90	0.02	0.87	0.93	54.83	<.001	0.90
	Clinical Interviewing	0.90	0.02	0.87	0.93	55.17	<.001	0.90
	Formulation	0.89	0.02	0.85	0.92	50.58	<.001	0.89
	Assessment	0.85	0.02	0.81	0.89	39.22	<.001	0.85
	Intervention	0.88	0.02	0.84	0.91	46.09	<.001	0.88
Counselling Microskills	Ethics	0.93	0.01	0.90	0.95	73.92	<.001	0.93
	Self-Reflective Practice	0.83	0.02	0.78	0.88	34.16	<.001	0.83
	Counselling Microskills	1.00 ^a						
	Clinical Interviewing	0.92	0.01	0.90	0.95	71.80	<.001	0.92
	Formulation	0.86	0.02	0.82	0.90	43.47	<.001	0.86
	Assessment	0.84	0.02	0.79	0.88	36.93	<.001	0.84
Clinical Interviewing	Intervention	0.84	0.02	0.80	0.89	37.92	<.001	0.84
	Ethics	0.85	0.02	0.81	0.89	41.63	<.001	0.85
	Self-Reflective Practice	0.82	0.03	0.77	0.87	32.37	<.001	0.82
	Clinical Interviewing	1.00 ^a						
	Formulation	0.93	0.01	0.91	0.95	80.59	<.001	0.93
	Assessment	0.89	0.02	0.86	0.92	55.30	<.001	0.89
	Intervention	0.91	0.01	0.88	0.94	63.90	<.001	0.91
	Ethics	0.87	0.02	0.83	0.90	46.28	<.001	0.87

(Continued)

Table 2. (Continued).

		Estimate	SE	95% Confidence Interval		Z	p	Stand. Estimate
				Lower	Upper			
Formulation	Self-Reflective Practice	0.81	0.03	0.76	0.86	31.22	<.001	0.81
	Formulation	1.00 ^a						
	Assessment	0.88	0.02	0.85	0.92	50.40	<.001	0.88
	Intervention	0.93	0.01	0.90	0.95	74.81	<.001	0.93
Assessment	Ethics	0.86	0.02	0.83	0.90	44.48	<.001	0.86
	Self-Reflective Practice	0.84	0.02	0.79	0.88	35.97	<.001	0.84
	Assessment	1.00 ^a						
	Intervention	0.88	0.02	0.85	0.92	51.45	<.001	0.88
Intervention	Ethics	0.88	0.02	0.85	0.92	51.69	<.001	0.88
	Self-Reflective Practice	0.83	0.02	0.78	0.87	34.07	<.001	0.83
	Intervention	1.00 ^a						
Ethics	Ethics	0.90	0.01	0.88	0.93	62.20	<.001	0.90
	Self-Reflective Practice	0.86	0.02	0.82	0.90	41.30	<.001	0.86
Self-Reflective Practice	Ethics	1.00 ^a						
	Self-Reflective Practice	0.89	0.02	0.85	0.92	53.33	<.001	0.89
	Self-Reflective Practice	1.00 ^a						

^afixed parameter.

2018) suggests that uniquely different constructs are being measured by the two questionnaires.

The Fisher *r*-to-*z* transformation was applied to the correlations of total scores on the COPPR-S and the PCSES and Perceived Knowledge subscale of the CFI, respectively, to further test the convergent and divergent validity. The analysis indicated a significant difference between the correlations ($z = 9.268, p < .001$), suggesting that the correlation between the COPPR-S total score differed significantly from the convergent measure of the PCSES total score and the divergent measure of the Perceived Knowledge subscale of the CFI.

To assess if the COPPR was able to differentiate between “known groups” (Boateng et al., 2018), a one-way between groups analysis of variance (ANOVA) was conducted to test whether the total score on the COPPR-S significantly differed across the three participant registration groups: those with provisional registration, general registration (including those currently completing endorsement pathway but not yet endorsed), and additional endorsements. Whilst the Shapiro–Wilk test of normality was significant for the third group of psychologists with additional endorsements (.941, $df = .70, p = .002$), as the sample size was sufficiently large ($n = 70$), and there was no evidence of a violation of the assumption of homogeneity with all Levene statistics $p > .05$, ANOVA was chosen to analyse

the difference between registration groups regarding total score on the COPPR-S. The ANOVA suggested that total scores on the COPPR-S differed significantly across registration types ($F = 48.721, df = 2, p < .001$). To further understand the relationship between the registration groups and the COPPR-S total scores, post-hoc Tukey analyses were conducted. Tukey analysis found significant differences across all groups, including between provisional and general psychologists ($M = -92.3, SE = 12.48, p < .001$), between provisional and endorsed psychologists ($M = -130.2, SE = 13.24, p < .001$) and between general and endorsed psychologists ($M = -37.9, SE = 10.18, p < .001$).

The mean total score on the COPPR-S across the sample was 415.3 ($N = 211, SD = 79.3$). Mean total scores on the COPPR-S was 327.0 for provisional psychologists ($n = 38, SD = 79.3$), 419.3 for general psychologists ($n = 103, SD = 64.7$) and 457.2 for endorsed psychologists ($n = 70, SD = 58.8$). Mean item scores for each subscale are presented in Table 4.

Discussion

Following on from the development and initial pilot (Rice et al., 2022), this study aimed to conduct a psychometric evaluation of the COPPR-S. This was the first assessment of dimensionality for the scale, and

Table 3. Internal consistency results for subscales and iterations of the COPPR-S as calculated via Cronbach's alpha.

COPPR Subscales	Cronbach's Alpha
Scientist Practitioner	.87
Working Across the Lifespan	.70
Cultural Responsiveness	.96
Professional Communication and Liaison Skills	.95
Counselling Microskills	.97
Clinical Interviewing	.97
Formulation	.97
Assessment	.96
Intervention	.97
Ethics	.97
Self-Reflective Practice	.97
COPPR-S (all items)	.99

Table 4. Mean item score for each subscale.

Subscale/s	Mean (Standard Deviation)
Scientist Practitioner	4.9 (1.0)
Working Across the Lifespan	4.6 (1.0)
Cultural Responsiveness	4.8 (1.1)
Professional Communication and Liaison Skills	5.3 (1.0)
Counselling Microskills	5.4 (1.0)
Clinical Interviewing	5.2 (1.1)
Formulation	5.0 (1.2)
Assessment	5.1 (1.1)
Intervention	5.0 (1.1)
Ethics	5.3 (1.1)
Self-Reflective Practice	5.3 (1.1)

Please see [Figure 1](#) for the 7-point rating scale and descriptors. Competence is defined as the level expected of a registered psychologist (Rating = 4).

the results of the CFA supported the structure of the COPPR-S and the 11 domains of competence. The strong association between the COPPR-S and the perceived self-efficacy scale (Watt et al., 2019) provided evidence of convergent validity, and the weaker association with career knowledge (McIlveen et al., 2013) provided evidence of divergent validity. In further support for convergent and divergent validity, these correlations were significantly different. These results support the initial findings from the pilot study (Rice et al., 2022), and provide further evidence of the validity of the COPPR-S as a measure of self-reported competence for psychologists.

The results provided strong support for the reliability of the COPPR-S total score, and the subscales, with the exception of *Working across the Lifespan*. The items on this subscale represent working with different client populations at different ages in the lifespan (e.g., working with children, working with older adults), and as such, it doesn't necessarily follow that a practitioner

would have equal professional competence or experience working with each age range. Thus, it is understandable that less internal consistency was found for the *Working across the Lifespan* subscale, as there is less similarity in the items within the subscale compared to the other subscales. The items in the other subscales have a stronger common theme. Indeed, many of the other subscales, and the whole measure, had internal consistencies in the excellent range (based on Nunnally's (1978) frequently cited conventions). However, reliabilities at these levels may also be suggestive of redundancy (Tavakol & Dennick, 2011). While reducing the number of items is often recommended when redundancy is suggested, the items on the COPPR-S are narrow in focus and specific, which is also related to higher internal consistency scores (Panayides, 2013). Furthermore, as the COPPR-S items relate to the required competencies from the APAC Standards (2019), it is not possible to remove items without compromising the scale's ability to assess all of the specific skills within each domain, and all of the APAC required skills, as this may omit important areas of practice. In addition, given that there is likely to be redundancy in the specified competencies within the APAC Standards, this would be reflected in the COPPR-S domains, as the content validity of the COPPR-S is derived from the APAC Standards (Rice et al., 2022). Moreover, due to the inter-relationship of competencies within each domain, the similarity within these cluster of skills is also likely to result in elevated internal consistency (Rice et al., 2022). This was also reflected in high internal consistency in the convergent validity measure, the Perceived Counsellor Self-Efficacy Scale (Watt et al., 2019), suggesting that high internal reliability is inherent in these types of scales, which may be related to, at least in part, natural redundancy from competency clusters and accreditation standards (Rice et al., 2022). Thus, the internal consistency scores found in this study support the reliability of the COPPR-S total score and subscales.

COPPR-S scores were found to differ between practitioners across the career trajectory, with practitioners who had additional training and registration levels observed to have significantly higher scores than those provisionally registered, or early in their training journey. These results lend support to the stages of competence model proposed originally by Dreyfus and Dreyfus (1980), whereby practitioner competencies are expected to fluctuate, and broadly follow a developmental pathway from "beginner" through to "expert" (Deane et al., 2018). This progression was supported by our results, with the COPPR-S scores observed in this study to differentiating between the

type of registration, which is related to the level of formal qualifications held by the practitioner. This is consistent with the Psychology Board of Australia's *Threshold professional competency benchmark*, which recognises the continuum of competence and the "minimum acceptable level of competence" that is required to practice as a psychologist (Australian Health Practitioner Regulation Authority, 2024b, p. 3). The findings that the COPPR-S scores were significantly different for each registration type suggests that the scale could be a useful tool for practitioners who are self-assessing their performance, to ensure compliance with the currency of practice requirements. These findings, of the COPPR-S scores differentiating between the type of registration, also lends support for the development and possible fluctuation of competence throughout the career (Rodolfa et al., 2013). This implicates practitioners to continue to monitor and self-assess their performance on core competencies regularly, to ensure that competency across all domains remains current and to reduce the risk of becoming incompetent (Banner et al., 2023; Loades & Myles, 2016).

Practical application

The results of this study support the utility of the COPPR-S across the career trajectory, as a structured, multi-dimensional self-assessment tool for psychologists. These scales have practical application in training, practice and research settings. In practice, the COPPR-S can be utilised as a self-reflection tool for practitioners. To facilitate application, the response form, with scoring instructions, is presented in Figure 2. The mean item score for each subscale and the total score is able to be interpreted with the descriptors in the response format. For example, a mean item score of 4 for any subscale would equate to competence at the registered psychologist level. These subscale scores are useful to facilitate self-reflection, discussion with supervisors, and enable comparison over time.

Limitations and directions for future research

This research provides a quantitative investigation of the self-assessment of competencies for registered psychologists in Australia. Furthermore, this study provides the first full psychometric scale evaluation of the COPPR-S, including an assessment of dimensionality. Despite the importance of these findings for the conceptualisation and assessment of psychologist competence, there are

some limitations. Firstly, the majority of the sample were female. While this may be representative of the workforce, with psychology likely to have a higher proportion of females in the profession, future research could explore if there are gender differences in the self-assessment of competencies. Secondly, this research relied upon cross-sectional data, which prevented an exploration of the consistency of scores over time. Thus, future research utilising longitudinal data is needed to evaluate the stability of scores over time, and assess changes in self-reported competence with work experiences and professional development opportunities. Thirdly, this research only collected self-report evaluations of competence. As subjective, self-assessment of competence across all domains of practice was the focus of this study, the self-reported version of the scale was necessarily utilised. However, future studies that engage educators or supervisors to assess competence could utilise the COPPR-O, and explore competencies based on observer ratings.

Further, it is worthy to note that only the COPPR-S was assessed in this study. The COPPR-S and the COPPR-O have the same items and response format, with the only difference being that the COPPR-S is a subjective, self-evaluation, whereas the supervisor or educator rates the "trainee" across the items in the observer rated version. The COPPR-O is designed as an assessment for educational contexts, including placement evaluation in professional psychology courses (APAC, 2019, Level 3 courses), and to assess student competence on learning tasks or clinical examinations, and to track progression throughout the training journey. Beyond university training, the COPPR-O may also be useful for rating competence during internships, and for supervisors of registered psychologists, to rate supervisee competence across all domains. Given that only the COPPR-S was included in this study, it is possible that psychometric differences may emerge in the COPPR-O, as it is rated by an observer. Thus, future research that utilises the COPPR-O is needed.

It is also worthy to note that the COPPR Scales were developed from the Australian Accreditation Standards (APAC, 2019), and as such, may not necessarily represent the required competencies of psychologists in other countries. Researchers and practitioners in other countries should align the COPPR domains and items with their own country standards prior to use.

Conclusion

This research provides important psychometric validation of the COPPR-S as a conceptual model and self-assessment

of psychologist competence. As a conceptual model, the COPPR has implications for understanding, training and maintaining psychologist competence across all domains of practice. In this study, the COPPR-S has demonstrated utility as a framework and self-assessment of competence across all domains of practice, based on the APAC Accreditation Standards for registered psychologists (Level 3; 2019). This has important implications and value for practitioners, in providing a self-assessment tool for reflecting on perceived competence, which may aid psychologists in both maintaining competence, and practicing within their specific competencies. As a tool for self-reflection, the COPPR-S can facilitate a systematic, multi-dimensional self-evaluation of competence, that may be useful for identifying strengths and areas for development, to establish professional development needs and goals. Psychologists can also utilise the COPPR-S to monitor performance across the career, with training opportunities, and with varied work experiences. The items are presented in [Figure 2](#), for use in practice, research and educational contexts.

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Data availability statement

The data that support the findings of this study are available from the corresponding author, [KR], upon reasonable request.

References

Australian Health Practitioner Regulation Authority. (2024a). *Professional competencies for psychologists*. <https://www.psychologyboard.gov.au/Standards-and-Guidelines>

[/Professional-practice-standards/Professional-competencies-for-psychology.aspx](#)

- Australian Health Practitioner Regulation Authority. (2024b). *Fact sheet: Professional competencies for psychologists. How to do a self-assessment against the general registration competencies*. https://www.ahpra.gov.au/documents/default.aspx?record=WD24%2f33831&dbid=AP&chksum=IY1Fn5uQoOC86eDXzOR9zw%3d%3d&_gl=1*1hkj4fk*_ga*MTkwNzcxNTYxMC4xNzlyMzk1OTI0*_ga_F1G6LRCHZB*MTczMDQyNTY5NC43LjEuMTczMDQyNTcwNy4wLjAuMA
- Australian Psychology Accreditation Council. (2019). *Accreditation standards for psychology programs, effective 1 January 2019, version 1.2*. https://www.psychologycouncil.org.au/sites/default/files/public/Standards_20180912_Published_Final_v1.2.pdf
- Banner, S. E., Rice, K., Schutte, N., Cosh, S. M., & Rock, A. J. (2023). Reliability and validity of the self-reflection and insight scale for psychologists and the development and validation of the revised short version. *Clinical Psychology & Psychotherapy*, 31(1). <https://doi.org/10.1002/cpp.2932>
- Boateng, G., Neilands, T., Frongillo, E., Melgar-Quiñonez, H., & Young, S. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, 6, 149. <https://doi.org/10.3389/fpubh.2018.00149>
- Comrey, A. L., & Lee, H. B. (1992). Interpretation and application of factor analytic results. In A. L. Comrey & H. B. Lee (Eds.), *A first course in factor analysis* (p. 2). Lawrence Erlbaum Associates.
- Cosh, S., Rice, K., Bartik, W., Jefferys, A., Hone, A., Murray, C., & Lykins, A. D. (2021). Acceptability and feasibility of telehealth as a training modality for trainee psychologist placements: A COVID-19 response study. *Australian Psychologist*, 57(1), 28–36. <https://doi.org/10.1080/00050067.2021.1968275>
- Deane, F. P., Gonsalvez, C. J., Joyce, C., & Britt, E. (2018). Developmental trajectories of competency attainment amongst clinical psychology trainees across field placements. *Journal of Clinical Psychology*, 74(9), 1641–1652. <https://doi.org/10.1002/jclp.22619>
- Dreyfus, S. E., & Dreyfus, H. L. (1980). *A five-stage model of the mental activities involved in directed skill acquisition*. Storming Media.
- Fouad, N. A., Grus, C. L., Hatcher, R. L., Kaslow, N. J., Hutchings, P. S., Madson, M. B., Collins, F. L., Jr., & Crossman, R. E. (2009). Competency benchmarks: A model for understanding and measuring competence in professional psychology across training levels. *Training and Education in Professional Psychology*, 3(4, Suppl), S5–S26. <https://doi.org/10.1037/a0015832>
- George, D., & Mallery, P. (2003). *SPSS for windows step by step: A simple guide and reference 11.0 update* (4th ed.). Allyn & Bacon.
- Gonsalvez, C. J., & Calvert, F. L. (2014). Competency-based models of supervision: Principles and applications, promises and challenges. *Australian Psychologist*, 49(4), 200–208. <https://doi.org/10.1111/ap.12055>
- Gonsalvez, C. J., Deane, F. P., & Caputi, P. (2016). Consistency of supervisor and peer ratings of assessment interviews conducted by psychology trainees. *British Journal of Guidance & Counselling*, 44(5), 516–529. <https://doi.org/10.1080/03069885.2015.1068927>

- Hair, J. H., Black, W., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis: A global perspective*. Pearson.
- Hatcher, R. L., Fouad, N. A., Grus, C. L., Campbell, L. F., McCutcheon, S. R., & Leahy, K. L. (2013). Competency benchmarks: Practical steps toward a culture of competence. *Training and Education in Professional Psychology, 7*(2), 84–91. <https://doi.org/10.1037/a0029401>
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods, 6*(1), 53–60.
- Iacobucci, D. (2010). Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology, 20*(1), 90–98. <https://doi.org/10.1016/j.jcps.2009.09.003>
- Kääriäinen, M., Kanste, O., Elo, S., Pölkki, T., Miettunen, J., & Kyngäs, H. (2011). Testing and verifying nursing theory by confirmatory factor analysis. *Journal of Advanced Nursing, 67*(5), 1163–1172. <https://doi.org/10.1111/j.1365-2648.2010.05561.x>
- Kang, H. (2013). The prevention and handling of the missing data. *Korean Journal of Anesthesiology, 64*(5), 402–406. <https://doi.org/10.4097/kjae.2013.64.5.402>
- Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2014). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research, 44*(3), 486–507. <https://doi.org/10.1177/0049124114543236>
- Kline, R. B. (2016). *Principles and practice of structural equation modelling*. Guilford Publications.
- Kyndt, E., & Onghena, P. (2014). The integration of work and learning: Tackling the complexity with structural equation modelling. In C. Harteis, A. Rausch, & J. Seifried (Eds.), *Discourses on professional learning: On the boundary between learning and working* (pp. 255–291). Springer. https://doi.org/10.1007/978-94-007-7012-6_14
- Loades, M. E., & Myles, P. J. (2016). Does a therapist's reflective ability predict the accuracy of their self-evaluation of competence in cognitive behavioural therapy? *The Cognitive Behaviour Therapist, 9*. <https://doi.org/10.1017/S1754470X16000027>
- McIlveen, P., Burton, L. J., & Beccaria, G. (2013). A short form of the career futures inventory. *Journal of Career Assessment, 21*(1), 127–138. <https://doi.org/10.1177/1069072712450493>
- Nunnally, J. C. (1978). *Psychometric theory*. McGraw-Hill.
- Panayides, P. (2013). Coefficient alpha: Interpret with caution. *Europe's Journal of Psychology, 9*(4), 11–29. <https://doi.org/10.5964/ejop.v9i4.653>. <https://doi.org/10.3389/feduc.2022.840258>.
- Rice, K., Schutte, N. S., Cosh, S. M., Rock, A. J., Banner, S. E., & Sheen, J. (2022). The utility and development of the competencies of professional psychology rating scales (COPPR). *Frontiers in Education, 7*. <https://doi.org/10.3389/feduc.2022.818077>
- Rodolfa, E., Baker, J., DeMers, S., Hilson, A., Meck, D., Schaffer, J., Woody, S., Turner, M., & Webb, C. (2013). Professional psychology competency initiatives: Implications for training, regulation, and practice. *South African Journal of Psychology, 44*(2), 121–135. <https://doi.org/10.1177/0081246314522371>
- Rodolfa, E., Bent, R., Eisman, E., Nelson, P., Rehm, L., & Ritchie, P. (2005). A cube model for competency development: Implications for psychology educators and regulators. *Professional Psychology, Research and Practice, 36*(4), 347–354. <https://doi.org/10.1037/0735-7028.36.4.347>
- Rodolfa, E., & Schaffer, J. (2019). Challenges to psychology education and training in the culture of competence. *The American Psychologist, 74*(9), 1118–1128. <https://doi.org/10.1037/amp0000513>
- Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The career futures inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment, 13*(1), 3–24. <https://doi.org/10.1177/1069072704270271>
- Schober, P., Boer, C., & Schwarte, L. (2018). Correlation Coefficients: Appropriate Use and Interpretation. *Anesthesia & Analgesia, 126*(5), 1763–1768. <https://doi.org/10.1213/ANE.0000000000002864>
- Shelley, J., Rice, K., Cosh, S. M., Schutte, N., & Rock, A. J. (2024). Feasibility and practicality of a simulated placement: An exploratory pilot of a novel training method for postgraduate psychology students in the wake of COVID-19. *Australian Psychologist, 59*(4), 315–328. <https://doi.org/10.1080/00050067.2024.2330960>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (6th ed.). Allyn and Bacon.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Watt, H. M. G., Ehrich, J., Stewart, S. E., Snell, T., Bucich, M., Jacobs, N., Furlonger, B., & English, D. (2019). Development of the Psychologist and counsellor self-efficacy scale. *Higher Education, Skills & Work-Based Learning, 9*(3), 485–509. <https://doi.org/10.1108/HESWBL-07-2018-0069>