

# BEHIND THE SCENES – RIGOUR OF A MASTER’S CLINICAL AND COUNSELLING PSYCHOLOGY DEGREE SELECTION PROCESS

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## ABSTRACT

This article reports on the rigour of a selection process for master’s degree programmes in clinical and counselling psychology at an undisclosed university in South Africa over a six-year period ( $n=81$ ). This was achieved by completing correlation and regression analyses between the six selection activities, the six course modules, and the course average in the student’s M1 year. Results showed significant positive regressions between the metaphors activity, child psychopathology, and theory of psychological interventions modules, between the research task and neuropsychology, between the psychopharmacology and psychopathology modules, and between the problem-solving activity and the course average. The case study activity negatively predicted the ethics and practical work and applied and community psychology modules. The conclusion was that the selection process can be considered valid, as the skills assessed for most of the selection activities positively correlated and predicted the skills required to succeed both academically in the M1 year and as a practising psychologist. However, the case study activity required further investigation, as the skills that are purportedly assessed should correlate and positively predict the ethics and practical work module, which was not the case. Future studies should also investigate the usefulness of interviews during this process.

**Keywords:** clinical psychology, counselling psychology, masters, selection, good psychologist

## INTRODUCTION AND LITERATURE REVIEW

What defines a “good psychologist”? Is it specific attributes or skills? The ability to create a good working alliance? Or possibly the ability to induce therapeutic change for a client? The definition of a “good psychologist” varies widely due to the subjective nature of the therapeutic

experience. Therefore, selecting candidates for a master's degree in clinical or counselling psychology who have the potential to become "good psychologists" has often been subjective by nature, with each university in South Africa offering these programmes having slightly different selection processes.

For the purpose of this study, a "good psychologist" is defined as an individual with the ability to create a strong working alliance with clients which helps to induce therapeutic change (Ackerman and Hilsenroth 2003, 2). Attributes that assist a psychologist in doing so include self-awareness and regulation, analytical reasoning, critical thinking, creativity, problem-solving, good interpersonal skills, flexibility, research skills, maturity, honesty, openness, respectfulness, and a friendly nature (Ackerman and Hilsenroth 2003, 28; Horvath et al. 2011, 15; Jennings and Skovholt 1999, 9; Jennings et al. 2003, 62; Lambert and Barley 2001, 357). Additional characteristics which have been used to define a "good psychologist" include psychological mindedness, effective stress management, and continuous learning (Jennings and Skovholt 1999, 9; Mayekiso et al. 2004, 658).

Jennings and Skovholt (1999) separated these skills and attributes into three domains, namely emotional, relational, and cognitive domains. A "good psychologist" can therefore be seen to have attributes, skills, and characteristics from each of these three domains.

### **Master's degree selection process**

These domains are assessed and sought after during the selection of candidates for clinical and counselling psychology master's degree programmes at various universities in South Africa. This study focused on the selection process for these programmes at one unnamed university in South Africa – hereafter referred to as the "participating university" – to ensure anonymity. During selection at the participating university, skills and attributes from these domains are assessed through six selection activities – two interviews (initial and final), a metaphors task, a problem-solving task, a case study, and a research task (Participating University 2018). Together, these tasks aim to evaluate a candidate's overall potential for success in the relevant programme and becoming a "good psychologist", with each task assessing different attributes and skills. Although each university's selection process differs, there is substantial degree of overlap and similarity between processes.

The initial interview assesses the candidate's stress management, strengths and weaknesses, self-awareness, and interpersonal relationships and influences (Participating University 2018). The final interview provides the panel with a space to ask any final questions required to help determine whether the candidate is suitable for the respective programme (Participating University 2018).

The case study is included to evaluate the candidate's critical thinking, analytical reasoning, and thinking style (Participating University 2018). The problem-solving task evaluates problem-solving skills, decision-making, and the ability to manage novel situations and group interactions (Participating University 2018).

Both critical thinking and problem-solving are essential skills for a psychologist and are developed throughout undergraduate and graduate studies (O'Hare and McGuinness 2005, 40; Barrie 2006, 218). These skills assist in applying theory to clinical work (Boud and Falchikov 2006, 400) and enhance one's capacity to handle novel and ambiguous problems (Thomas 2011, 26). Critical thinking and problem-solving are often enhanced in graduate degrees through the use of problem-based learning (PBL) (Searight and Searight 2009, 69; Karantzas et al. 2013, 42). PBL requires students to link theory to clinical cases which often constitute complex problems and may have a multitude of solutions (Searight and Searight 2009, 69; Karantzas et al. 2013, 39).

Furthermore, problem-solving is required when identifying contributing factors to a client's clinical presentation (Rotter 1978, 3) and when formulating individual treatment plans (Rotter 1978, 3; Karantzas et al. 2013, 43). Lastly, clinicians require good problem-solving capabilities as they are often tasked with enhancing a client's own problem-solving (Rotter 1978, 3; Heppner et al. 2001, 330).

In contrast, the metaphors task evaluates the candidate's ability to creatively project themselves and their experiences onto an object while managing group interactions (Participating University 2018). In this activity, metaphors are used for numerous purposes in psychotherapy, such as creating and changing personal meanings and narratives, inducing intrapsychic insight, altering behaviour and emotions, and reducing a client's resistance to psychotherapy and their personal defences (Bowman 1995, 206; Pernicano 2014, 19). However, as Legowski and Brownlee (2001) state, the importance of using metaphors in psychotherapy lies in the "transfer of meaning" (Legowski and Brownlee 2001, 20), as it allows clients and therapists to relate ideas and experiences with each other and creates "a bridge to the client's inner world" (Kruger and Swanepoel 2017, 93) that opens up a client's imagination and allows them to perceive new possibilities and perspectives.

The research task evaluates the candidate's basic research skills, which involves identifying research problems and effectively aligning them with an appropriate research methodology (Participating University 2018). Further research skills include recognising research problems, investigating relevant literature, devising research questions, collecting, analysing and interpreting data, and the ability to disseminate results effectively (Alm 2010, 62; Strnadová et al. 2013, 14; Clark and Sousa 2017, 2).

Although each of these activities is set to assess skills that literature has identified to be crucial for a “good psychologist” to possess, the extent to which these activities accurately predict candidates who will be considered “good” and successful psychologists is unknown. This study was therefore aimed at assessing the validity in this process of selecting candidates who will not only be considered good students but also “good psychologists”.

### **Course content outcomes**

To achieve the above aim, seven outcome measures were chosen which reflect the three domains (i.e., the emotional, relational, and cognitive domains) of a psychologist identified by Jennings and Skovholt (1999). These outcome measures include the course modules in the student's M1 year of their respective degree. Five theoretical modules (child psychopathology, theory of psychological interventions, applied and community psychology, neuropsychology, psychopharmacology and psychopathology, and a research module), an ethics and practical work module, and lastly, a coursework average, which consists of 50 per cent research and 50 per cent combined average of the remaining five modules, are included in the programme. These courses reflect the minimum standards for the training of clinical and counselling psychology put forth by the Health Professionals Council of South Africa (HPCSA 2019a, 3; HPCSA 2019b, 3).

The cognitive domain of a psychologist is reflected in the five theoretical modules and coursework average, as these evaluate the student's ability to succeed academically and acquire the theoretical understandings needed to carry out successful psychotherapy. The relational and emotional domains are reflected in the ethics and practical module of the student, as skills such as maturity, emotional receptivity, openness, empathy, interpersonal skills, and flexibility form part of these domains and are attributes required to create a good and strong working alliance with a client in psychotherapy (Ackerman and Hilsenroth 2003, 28), which is considered essential in conducting successful psychotherapy (Castonguay, Constantino, and Holtforth 2006, 271).

### **RATIONALE**

Evaluating the validity of this process is important because it is the first step in choosing psychologists who deliver mental health care and resources to South African communities (Fisher et al. 2003, as cited in Mayekiso et al. 2004, 661). A substantial number of these communities do not have access to mental health resources – Stats SA (2019) cites approximately one psychologist for every 6 568 people in South Africa. There has hence been a call for the transformation of psychology in South Africa to promote community-based

interventions in order to make mental health resources more accessible, especially to disadvantaged communities (Pillay, Ahmed, and Bawa 2013, 50). This requires that universities select master's degree candidates who possess the relevant skills and aptitudes to carry out community-based interventions which are able to address the desperate need for mental health resources in South Africa and issues surrounding social inequality and racial oppression (Pillay et al. 2013, 48). Additionally, it is imperative that training universities carefully select candidates who will be able to complete their degrees, register as psychologists with the HPCSA and thereafter serve the South African population. If this is not the case, training universities may contribute to a growing statistic of psychologists per person in South Africa, further disadvantaging our communities.

Furthermore, the number of applications for these degrees far outweigh the number of spaces available (Pillay et al. 2013, 47), and so most applicants are declined, which alters their career paths and employment possibilities. Lastly, these selection processes are costly to universities in terms of time and resources spent to conduct them and the mental, financial, and emotional resource costs for each candidate (Nel 2016).

## **GOALS OF THE STUDY**

With this study, I intend to answer the following research questions: 1) What are the relationships between each of the selection activities and each of the performance measures? 2) Which selection activities accurately predict the performance measures? and 3) What is the relationship between the set of selection activities and the set of performance measures?

From these research questions, the following hypotheses were formulated: 1) The research, problem-solving and case-study selection activities will have a positive correlation with the coursework average of the participant. 2) The problem-solving and metaphors selection activities and the interviews (initial and final) will have a positive correlation with both practical module marks of the participant. 3) The research, problem-solving and case-study selection activities will predict the coursework average of the participant. 4) The problem-solving and metaphors selection activities and the interviews (initial and final) will predict both practical module marks of the participant.

## **METHOD**

### **Participants**

In this study, the archival data from 81 participants, namely students enrolled for a master's degree in clinical or counselling psychology at an undisclosed university in South Africa over

a six-year period was used. Given that the data for the study has been anonymised, no demographic information is available for the participants. Students who were accepted into the programmes but did not successfully complete their relative degrees were excluded from the study, as they were not able to meet the necessary outcome measures required for the study.

## **Study design**

This study followed a quantitative, non-experimental, cross-sectional, single case-study design (Rosnow and Rosenthal 2005, 47). This single-case study design is deemed appropriate for the aims of this study as it allowed the researchers to carefully investigate the selection process involved in the specific university. A case-study design also allows the researchers to work with the limited samples and data available to investigate the selection of M clinical and counselling psychology students (Zainal 2007, 2).

## **Procedure**

### ***Data collection***

This data fell within two broad categories, namely selection activities and module marks. The selection activities were considered for the input variables, with the module marks and course average being the output variables. There was a total of six selection activities, namely the initial interview, the metaphors activity, the research task, the problem-solving task, the case study, and the final interview. Although all these activities are used to assess the overall potential of the candidate, the rationale for their inclusion in selection differs slightly (see Table 1).

The outcome variables include marks from six different course modules and the course average. The six modules include child psychotherapy (CP); ethics and practical work (EP); applied and community psychology (ACP); theory of psychological interventions (ToPI); neuropsychology, psychopharmacology and psychopathology (NPP), and a research module. The course average is calculated by using 50 per cent coursework and 50 per cent research module. The Health Professions Council of South Africa's minimum standards for the training of counselling and clinical psychology (HPCSA 2019a, 3; HPCSA 2019b, 3), are reflected through the courses in both Masters programmes.

To ensure confidentiality and anonymity of the participants and full anonymity of the researcher, an independent person, who by the nature of her position at the university has access to the information, anonymised all the data. The data coding and anonymisation were thoroughly checked by the independent individual, who went through the data twice after

completion to ensure its accuracy. The list of codes that correspond with the participants was deleted in order to assure that no links can be made between the data and individuals, thus ensuring true anonymisation of the data.

**Table 1:** Rationale for each selection activity – skills assessed

<b>Selection activity</b>	<b>Initial interview</b>	<b>Case study</b>	<b>Metaphor</b>	<b>Research task</b>	<b>Problem solving</b>	<b>Final interview</b>
Skills and attributes assessed	Strengths; Weaknesses; Managing anxiety, pressure, crises; Interaction style; Self-insight; Self-regulation; Personal influences; Life experiences	Analytical thinking and reasoning; Thinking preferences and style	Creative Projection; Managing group dynamics	Research skills	Ability to handle new and unfamiliar situations; Decision making; Problem-solving; Group interaction	Suitability for the programme

### Data analysis

Pearson's correlation coefficient and Spearman's rank-order correlation analyses were performed to investigate the relationship between the selection activities and performance variables. Additionally, inter-correlations between the selection activities and the performance measures were conducted to determine whether any of the activities correlated with each other.

In order to investigate the predictive nature of the master's degree selection process, regression analyses were conducted between each selection activity and performance measure, which showed significant correlations. Since there was only one statistically significant predictor for each performance measure that showed a significant correlation and prediction, a multiple regression could not be performed (Durrheim and Tredoux 2019, 338).

Lastly, a canonical correlation was performed, which allowed the researcher to assess the nature of the relationship between the two multidimensional variables (Hardoon, Szedmak, and Shawe-Taylor 2004, 2641), namely the set of selection activities and set of performance measures (Andrew et al. 2013, 1247). This analysis helped in determining which linear combinations of input measures and outcome variables had the most significant relationships (Andrew et al. 2013, 1247).

### Ethical considerations

Ethical clearance was obtained from the participating university's Human Research Ethics Committee and the Research Data Gatekeepers Committee (RDGC). The name of the participating university has been omitted to ensure participant privacy and confidentiality. This is done because the number of students admitted into these degrees is limited to a small number each year (approximately between six and eight students) and thus may be identifiable if the

name of the university is given.

Informed consent was obtained from the RDGC rather than from the participants themselves, since for informed consent to be gained from each participant, the researcher would have to have had access to confidential biographical information, which would have been in direct conflict with the confidentiality and privacy of the participants.

## RESULTS

### Normality of data

Q-plots, skewness co-efficient, and the central limit theorem were used to assess normality of the data (Durrheim and Tredoux 2019, 90). No significant deviation from normality was found for the analysed data.

### Descriptive and reliability statistics

See Table 2 for descriptive statistics of all variables.

**Table 2:** Description statistics

	N	Mean	Variance	SD	Minimum	Maximum	Skewness Coefficient	
<b>Average</b>	60	71.5	12.932	3.596	63	77	-0.355	0.309
<b>CP</b>	81	70.10	47.14	6.866	50	83	-0.748	0.267
<b>ToPI</b>	81	69.89	40.944	6.399	57	83	-0.199	0.267
<b>EP</b>	81	68.84	30.436	5.517	56	81	-0.316	0.267
<b>ACP</b>	81	72.73	30.85	5.554	58	84	-0.369	0.267
<b>NPP</b>	81	70.52	61.503	7.842	53	84	-0.389	0.267
<b>Research</b>	60	71.2	17.519	4.186	59	81	-0.034	0.309
<b>SI</b>	81	8.904	8.768	2.961	4	17	0.238	0.267
<b>RT</b>	81	13.472	27.772	5.23	4	20	-0.084	0.267
<b>M</b>	81	9.742	6.086	2.47	4.6	14.7	-0.153	0.267
<b>CS</b>	81	9.399	6.637	2.576	4	15	0.080	0.267
<b>PS</b>	81	11.014	12.938	3.597	4	20	0.805	0.267
<b>FI</b>	75	5.43	13.815	3.717	1	17	1.071	0.277

**Note:** N= Number of participants; CP= Child psychotherapy; ToPI= Theory of psychological interventions; EP= Ethics and practical work; ACP= Applied and community psychology; NPP= Neuropsychology, psychopharmacology and psychopathology; SI = Small interview; RT = Research task; M= Metaphors; CS= Case study; PS= Problem-solving; FI = Final interview

Internal consistency reliability was measured with the Cronbach alpha and inter-item correlations. The Cronbach alpha value for the course modules revealed good internal consistency ( $\alpha = 0.81$ ). Furthermore, this internal consistency was reiterated by the inter-item correlations, for the majority of the course modules (see Table 3).

**Table 3:** Please insert heading for this table

	<b>Corrected item – total correlation</b>	<b>Cronbach alpha if item deleted</b>
CP	0.698	0.764
ToPI	0.665	0.772
EP	0.764	0.756
ACP	0.608	0.786
NPP	0.611	0.791
Research	0.182	0.853

Table 4 indicates that the case study and ethics and practical work module, and case study and applied and community psychology module, had small negative correlations such that as scores increased for the case study activity, marks decreased for both these modules. Additionally, if a selection candidate performs well in the metaphors activity, they will likely perform well in the child psychotherapy and theory of psychological interventions modules. Similarly, performance in the research task correlated with performance in the neuropsychology, psychopharmacology and psychopathology module. Lastly, the problem-solving activity revealed a significant relationship higher marks in their coursework average.

### ***Regression analyses between selection activities and outcome measures***

With child psychotherapy as the dependent variable and metaphors as the independent variable,  $R^2 = 0.07$ ,  $F(1, 79) = 5.45$ ,  $p < 0.05$ , the metaphors activity explains approximately 7 per cent of the variance in child psychotherapy. The metaphors activity had a statistically significant regression relationship with child psychotherapy ( $\beta = 0.71$ ,  $r = 0.02$ ,  $t = 2.34$ ). Similarly, with TOPI as the dependent variable and metaphors as the independent variable,  $R^2 = 0.04$ ,  $F(1, 79) = 4.49$ ,  $p < 0.05$ , the metaphors activity accounts for approximately 4 per cent of the variance in theory of psychological interventions. The metaphors activity had a statistically significant regression relationship with TOPI ( $\beta = 0.60$ ,  $r = 0.04$ ,  $t = 2.12$ ). The metaphors activity thus positively predicts both the child psychotherapy and theory of psychological interventions modules such that if an individual performs well in metaphors during selection, they will likely perform well in both these course modules.

With ethics and practical work as the dependent variable and CS as the independent variable,  $R^2 = 0.08$ ,  $F(1, 79) = 6.82$ ,  $p < 0.05$ , the CS activity accounts for approximately 8 per cent of the variance in ethics and practical work. The CS activity had a statistically significant regression relationship with ethics and practical work ( $\beta = -0.60$ ,  $r = 0.01$ ,  $t = -2.28$ ). Likewise, with applied and community psychology as the dependent variable and CS as the independent variable,  $R^2 = 0.05$ ,  $F(1, 79) = 3.99$ ,  $p < 0.05$ , the CS activity accounts for approximately 5 per

**Table 4:** Correlations between Selection Activities and Outcome Measures

	Average	CP	ToPI	EP	ACP	NPP	Research	SI	RT	M	CS	PS	FI
Average	1												
CP	.585**	1	.602**	.647**	.585**	.614**	.081	.048	-.196	.254*	-.084	.165	-.160
ToPI	.600**	.602**	1	.699**	.538**	.572**	.123	-.015	-.132	.232*	-.143	-.070	-.090
EP	.738**	.647**	.699**	1	.581**	.593**	.253	-.042	-.039	.171	-.282*	.066	-.209
ACP	.687**	.585**	.538**	.581**	1	.546**	.180	.085	-.006	.079	-.219*	.162	-.035
NPP	.609**	.614**	.572**	.593**	.546**	1	.114	.072	-.300**	.184	-.074	.027	-.180
Research	.709**	.081	.123	.253	.180	.114	1	-.211	-.006	-.161	.051	.197	-.041
SI	-.058	.048	-.015	-.042	.085	.072	-.211	1	.017	.105	.151	-.007	.086
RT	-.017	-.196	-.132	-.039	-.006	-.300**	-.006	.017	1	.002	-.103	.161	-.032
M	.05	.254*	.232*	.171	.179	.184	-.161	.105	.002	1	-.008	.211	.314**
CS	-.128	-.084	-.143	-.282*	-.219*	-.074	.051	.151	-.103	-.008	1	-.211	.195
PS	.285*	.165	-.070	.066	.162	.027	.197	-.007	.161	.211	-.211	1	-.055
FI	-.102	-.160	-.090	-.209	-.035	-.180	-.041	.086	-.032	.314**	.195	-.055	1

**Note:** SI = Small Interview; RT = Research Task; M= Metaphors; CS= Case Study; PS= Problem-Solving; FI = Final Interview

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

cent of the variance in applied and community psychology. The CS activity had a statistically significant regression relationship with applied and community psychology ( $\beta = -0.47$ ,  $r = 0.049$ ,  $t = -2.00$ ).

These results indicate that the CS selection activity negatively predicts both the ethics and practical work and applied and community psychology modules. Therefore, if a selection candidate were to obtain high scores for the CS activity, they would perform poorly on both the ethics and practical work and applied and community psychology modules.

With neuropsychology, psychopharmacology and psychopathology as the dependent variable and RT as the independent variable,  $R^2 = 0.09$ ,  $F(1, 79) = 7.80$ ,  $p < 0.01$ , RT accounts for approximately 9 per cent of the variance in neuropsychology, psychopharmacology and psychopathology. RT had a statistically significant regression relationship with neuropsychology, psychopharmacology and psychopathology ( $\beta = -0.45$ ,  $r = 0.007$ ,  $t = -2.79$ ). This result shows that the higher a candidate performs in RT, the higher their marks will be for the neuropsychology, psychopharmacology and psychopathology module during their M1 year.

Lastly, with the average as the dependent variable and PS as the independent variable,  $R^2 = 0.08$ ,  $F(1, 79) = 5.12$ ,  $p < 0.05$ , the PS activity accounts for approximately 8 per cent of the variance in the average. The PS activity had a statistically significant regression relationship with the average ( $\beta = 0.41$ ,  $r = 0.03$ ,  $t = 2.26$ ). Overall, this regression result shows that the PS activity positively predicts the coursework average of the student during their M1 year. Therefore, the better the candidate performs in the PS activity, the higher their coursework average will be.

## DISCUSSION

This was the first study of its kind to assess the validity of a selection process that has been used for decades to select a small group of (8–12) students from a pool of hundreds of applicants to continue their journey from honours degree to a master's degree in clinical or counselling psychology. For generations of potential candidates, it could only be assumed that six selection activities, held at a university during a one-week period, could predict performance outcomes. This study finally added scientific merit to the selection process by weighing up the predictive strength of these selection activities with seven outcome variables (six course modules and the coursework average). Four of the six activities that showed predictive validity will be discussed in line with their significance to the profession of psychology.

### Metaphors activity

The metaphors activity positively predicted the child psychotherapy and theory of

psychological interventions modules. These modules reflect the cognitive domain of a psychologist, as they assess the student's ability to learn, understand, and apply new theoretical orientations and psychological treatments both for children and adults.

When considering child psychotherapy, various forms of play therapy are often used with a number of different theoretical underpinnings (Pernicano 2015, 1; Gabriel 2022, 291). During play, children regularly communicate and express experiences with the aid of metaphors (Bowman 1995, 207; Snow et al. 2005, 63; Gordon 2018, 135; Rossi, Maercker, and Heim 2023, 52) projecting themselves, their emotions, and their experiences onto different toys and objects (Snow et al. 2005, 63; Pernicano 2015, 1; Gordon 2018, 137; Rossi et al. 2023, 52). The psychologist then interprets these projections and integrates them to help the child to obtain a better understanding of and overcome their experiences and emotions (Drucker 1994, 62; Snow et al. 2005, 63, Gabriel 2022, 295). This use and interpretation of metaphorical expressions helps the child to make changes in their behaviour and enhance their resilience and coping skills (Snow et al. 2005, 63; Rossi et al. 2023, 52).

Using a metaphor as a technique in play therapy requires various skills from a psychologist, such as "flexibility, spontaneity, and creativity" (Pernicano 2015, 6) – skills that are assessed in the metaphors activity. Making effective use of and translating metaphors into a play therapy practice requires thorough theoretical knowledge and underpinning of child psychology and psychotherapy that include the fundamental concepts of child development (Pernicano 2015, 6; Rossi et al. 2023, 52). Furthermore, a psychologist must be able to assess a child's play capabilities, cognitive capacity, language skills, capacity for attention and concentration, and emotional maturity and understandings (Gabriel 2022, 295). This is required because, as with any intervention, the use of metaphors must align with the child's overall development and abilities (Gabriel 2022, 295).

Therefore, the result of the metaphors selection activity positively predicting the child psychotherapy module could be explained as follows: The skills which are evaluated in the metaphors activity form part of the skills that are required to effectively implement intervention plans for children and adolescents, given that psychotherapy for this population has a large emphasis on play therapy and the use of various types of metaphors, such as storytelling and projection of the self and experiences onto objects, art, and toys (Snow et al. 2005, 63; Pernicano 2015, 1; Gordon 2018, 137). For a psychologist to effectively use and implement these interventions, a thorough foundation of child and adolescent psychotherapy, psychopathology, and development is required. This information is presented to students in the child psychotherapy module. This module therefore not only teaches the required theoretical knowledge but also fosters and develops the skills that are required to effectively work with

and treat children and adolescents.

Similarly, the metaphors activity positively predicted the theory of psychological interventions module. This may suggest that if a selection candidate is able to creatively project themselves onto an object and create metaphors, they may be better at interpreting and understanding the metaphors which underpin various psychological theories (Witztum, Van der Hart, and Friedman 1988, 273; Bowman 1995, 210; Kopp and Craw 1998, 306; Wickman et al. 1999, 389; Raskin 1999, 333; Wahlström 2006, 16) and therefore perform well in this module. Additionally, a candidate who performs well in metaphors may show good flexibility – a skill which is used in the theory of psychological interventions module, as the student needs to be flexible when selecting the appropriate theoretical orientation and theory to formulate and conceptualise different patients and case studies.

Additionally, metaphors can be seen to help foster therapeutic change (Kruger and Swanepoel 2017, 102), as they can aid in emotional understanding. Through the collaborative analysis of client-generated metaphors, a client is able to discover emotions, thoughts, experiences, and memories related to the metaphorical image (Kruger and Swanepoel 2017, 102). Furthermore, metaphors can be seen to tap into a client's intrapsychic functioning and can thus serve as "a bridge to the client's inner world" (Kruger and Swanepoel 2017, 93) for the therapist and the client as it enables connection between a client's lived experiences and their emotional experiences (Rabinowitz and Cochran 2002, 33). Literature indicates that metaphors provide individuals with a novel way of expressing both their emotional and relational experiences and increases facilitate comfort when explaining vulnerable feelings and experiences (Genuchi, Hopper, and Morrison 2017, 136).

## **Research task**

The basic skills a researcher requires to conduct effective and efficient research (Alm 2010, 62; Clark and Sousa 2017, 2; Strnadová et al. 2013, 14) can be seen in the neuropsychology, psychopharmacology and psychopathology module. A researcher needs extensive knowledge of and must review relevant literature (Creswell 2017, 61) – the neuropsychology, psychopharmacology and psychopathology module requires that students possess extensive knowledge on neurophysiology, neuroanatomy, psychopharmacology, and psychopathology. This information is then used to assess a client's neuropsychological functioning and psychopathology, evaluating the brain-behaviour link. Students are then required to integrate this information and assessment to form and test hypotheses regarding the possible reasons for the client's current functioning and behaviour and make clinical diagnoses. Therefore, the research task positively predicts the neuropsychology, psychopharmacology and

psychopathology module, as they share the same essential skills required to succeed in both research and clinical diagnosis.

### **Problem-solving task**

The skills assessed in the PS task during selections are the same skills that students use throughout the various course modules when engaging in PBL (Searight and Searight 2009, 70; Karantzas et al. 2013, 42). Therefore, candidates who perform well in the problem-solving task will achieve a better coursework average since they are using and enhancing skills that are already in place. Furthermore, examinations often make use of various clinical cases and complex problems wherein the student is required to use their problem-solving and critical analysis skills to link their theoretical knowledge with the cases, make hypotheses, and provide possible diagnoses, treatment plans, and solutions to questions posed.

Moreover, both the PS tasks and the coursework modules during M1 (excluding the ethics and practical work module) were considered to fall within the cognitive domain of a psychologist (Jennings and Skovholt 1999, 6). The results indicate that the PS task is able to accurately predict those candidates who would be considered “good students” but also “good psychologists”. This is the case because it not only predicted theoretical course modules but the average which included the practical module (ethics and practical work), thus reflecting the relational and emotional domains of a psychologist.

### **Case study**

The fact that the CS activity showed negative predictions with the ethics and practical work module is interesting, since they both look at similar concepts and presentations. It is hypothesised that this is due to this activity's focus being strictly on the candidate's ability to think critically and analytically about an unfamiliar case and their ability to remain calm under pressure, whereas the ethics and practical work module's focus is on assessing psychological knowledge and insight and the ability to ethically manage and conduct psychotherapy (Dombrowski et al. 2021, 776). However, it is still peculiar that this selection activity negatively predicts the ethics and practical work module, and so, more investigation is required concerning this relationship.

Similarly, this activity also negatively predicted the applied and community psychology module. This negative prediction may be rooted in the difference between individualist and collectivistic interventions and overall aims, as the case study activity's focus is largely on individuals, while the applied and community psychology module's focus is on community-based interventions.

## **CONCLUSION**

This study has shown that the selection process for the master's degrees in clinical and counselling psychology is valid and selects candidates who possess the relevant skills and attributes to become "good psychologists". This was shown through the statistically significant positive predictions between the three of the activities and related module outcomes. Additionally, skills identified in the selection activities and course modules reflect those required to build strong working alliances in psychotherapy, which is a crucial aspect in conducting effective psychotherapy (Ackerman and Hilsenhoth 2003, 2; Castonguay et al. 2006, 271; Horvath et al. 2011, 15; Lambert and Barley 2001, 357; Sullivan, Skovholt, and Jennings 2005, 49).

## **Recommendations, implications and limitations**

There were statistically significant negative predictions between the CS activity on the one hand and the ethics and practical work and applied and community psychology modules on the other hand. Further investigation into this selection activity is recommended, as the skills supposedly assessed should positively predict the ethics and practical work module, which was not observed. Given that community-based interventions are considered crucial in the transformation of traditional psychological interventions in South Africa (Pillay et al. 2013, 50), it is imperative to investigate selection activities that would better predict the applied and community psychology module. Moreover, an important aspect of the transformation of psychology in South Africa includes the selection of individuals from previously disadvantaged populations into masters programmes. As this study did not have access to the demographic information of the participants, it was unable to assess whether the participating university selected candidates that fit this criteria. As such, qualitative research on this subject matter may be better able to yield demographic information that may be able to provide more in depth information regarding the subject.

Lastly, the interviews did not correlate or predict any of the modules and can thus be seen as subjective activities that are used for the selection panel to become more acquainted with the candidate and do not evaluate skills that are required to succeed in the master's degree modules or those which are considered to be essential for a "good psychologist".

This study may benefit future applicants, as it may advise the development of a more informed, and accurate selection across universities. Additionally, the results of this study will benefit the university that was studied, since it provides valuable information regarding whether the current processes are adequate and effective.

Furthermore, this study did not differentiate between the selection validity for clinical and

counselling psychology Masters programmes and also only focused on the therapeutic aspects of a psychologist. Further investigations into the selection validity for each specific psychology programmes as well as into other aspects of a psychologist including policy making, psychometric assessment and academics, to name but a few, would be beneficial.

### Conflict of interest

The researcher was involved in a similar selection process to the one discussed and researched and may therefore have had preconceived ideas which were bracketed when interpreting results. Furthermore, interpretations of the results were checked by an objective statistician.

### REFERENCES

- Ackerman, Steven J. and Mark J. Hilsenroth. 2003. "A Review of Therapist Characteristics and Techniques Positively Impacting the Therapeutic Alliance." *Clinical Psychology Review* 23(1):1–33. [https://doi.org/10.1016/s0272-7358\(02\)00146-0](https://doi.org/10.1016/s0272-7358(02)00146-0).
- Alm, Norman. 2010. "Invited Commentary on Bigby & Frawley's Reflections on the Challenges of Doing Inclusive Research as Part of the 'Making Life Good in the Community' study." *Journal of Intellectual and Developmental Disability* 35(2): 62–63. <https://doi.org/10.3109/13668251003726846>.
- Andrew, Galen, Raman Arora, Jeff Bilmes, and Karen Livescu. 2013. "Deep Canonical Correlation Analysis." *Proceedings of the 30<sup>th</sup> International Conference on Machine Learning*. Atlanta, USA, (Accessed 16 June 2013). <http://proceedings.mlr.press/v28/andrew13.html>.
- Barrie, Simon C. 2006. "Understanding What We Mean by the Generic Attributes of Graduates." *Higher Education* 51(2): 215–241. <https://doi.org/10.1007/s10734-004-6384-7>.
- Boud, David and Nancy Falchikov. 2006. "Aligning Assessment with Long-Term learning." *Assessment & Evaluation in Higher Education* 31(4): 399–413. <https://doi.org/10.1080/02602930600679050>.
- Bowman, Robert P. 1995. "Using Metaphors as Tools for Counseling Children." *Elementary School Guidance & Counseling* 29(3): 206–216. <http://www.jstor.org/stable/42871167>.
- Castonguay, Louis G., Michael J. Constantino, and Martin Grosse Holtforth. 2006. "The Working Alliance: Where Are We and Where Should We Go?" *Psychotherapy: Theory, Research, Practice, Training* 43(3): 271–279. <https://doi.org/10.1037/0033-3204.43.3.271>.
- Clark, Alexander M. and Bailey J. Sousa. 2017. "The Five Neglected Skills All Qualitative Researchers Need." *International Journal of Qualitative Methods* 16(1): 1–13. <https://doi.org/10.1177/1609406917713418>.
- Creswell, John W. and J. David Creswell. 2017. *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage publications.
- Dombrowski, Stefan C., Ryan J. McGill, Ryan L. Farmer, John H. Kranzler, and Gary L. Canivez. 2021. "Beyond the Rhetoric of Evidence-Based Assessment: A Framework for Critical Thinking in Clinical Practice." *School Psychology Review* 51(6): 771–784. <https://doi.org/10.1080/2372966x.2021.1960126>.
- Drucker, Jan. 1994. "Constructing metaphors: The role of symbolization in the treatment of children." In *Children at play: Clinical and developmental approaches to meaning and representation*, 62–80. London: Oxford University Press.
- Durrheim, Kevin and Colin Tredoux. (Ed.). 2019. *Numbers, Hypotheses & Conclusions: A Course in Statistics for the Social Sciences*. Juta and Company Ltd.
- Gabriel, Rami. 2022. "The Pragmatic Use of Metaphor in Empirical Psychology." *History of the Human Sciences* 35(3–4): 291–316. <https://doi.org/10.1177/09526951211047395>.

- Genuchi, Matthew C., Brian Hopper, and Charles R. Morrison. 2017. "Using Metaphors to Facilitate Exploration of Emotional Content in Counseling with College Men." *The Journal of Men's Studies* 25(2): 133–149. <https://doi.org/10.1177/1060826516661187>.
- Gordon, Tricia J. 2018. "Utilizing Animal Metaphors in Child Psychotherapy: An Integrative Approach for Therapists." *The Graduate Review* 3(1): 135–148. [https://vc.bridgew.edu/cgi/viewcontent.cgi?article=1072&context=grad\\_rev](https://vc.bridgew.edu/cgi/viewcontent.cgi?article=1072&context=grad_rev).
- Hardoon, David R., Sandor Szedmak, and John Shawe-Taylor. 2004. "Canonical Correlation Analysis: An Overview with Application to Learning Methods." *Neural computation* 16(2): 2639–2364. <https://doi.org/10.1162/0899766042321814>.
- Health Professions Council of South Africa. 2019a. "The Board of Psychology. Minimum Standards for the Training of Clinical Psychology". <https://clinicalpsychologyforum.co.za/hpcsasop-cpf/>. (Accessed 21 February 2023).
- Health Professions Council of South Africa. 2019b. "The Board of Psychology. Minimum Standards for the Training of Counselling Psychology." <https://www.ufs.ac.za/docs/librariesprovider25/cpd-documents/cpd-psychology-frequent-asked-questions-1015-eng.pdf>. (Accessed 21 February 2023).
- Heppner, P. Paul, Caren Cooper, Amy Mulholland, and Meifen Wei. 2001. "A Brief, Multidimensional, Problem-Solving Psychotherapy Outcome Measure." *Journal of Counseling Psychology* 48(3): 303–345. <https://doi.org/10.1037/0022-0167.48.3.330>.
- Horvath, Adam O., A. C. Del Re, Christopher Flückiger, and Dianne Symonds. 2011. "Alliance in Individual Psychotherapy." *Psychotherapy* 48(1): 9–16. <https://doi.org/10.1037/a0022186>.
- HPCSA *see* Health Professions Council of South Africa.
- Jennings, Len and Thomas M. Skovholt. 1999. "The Cognitive, Emotional, and Relational Characteristics of Master Therapists." *Journal of Counseling Psychology* 46(1): 3–11. <https://doi.org/10.1037/0022-0167.46.1.3>.
- Jennings, Len, Michael Goh, Thomas M. Skovholt, Matthew Hanson, and Devjani Banerjee-Stevens. 2003. "Multiple Factors in the Development of the Expert Counselor and Therapist." *Journal of Career Development* 30(1): 59–72. <https://doi.org/10.1177/089484530303000104>.
- Karantzas, Gery C., Michelle R. Avery, Susie Macfarlane, Alexander Mussap, Gregory Tooley, Zoe Hazelwood, and Julie Fitness. 2013. "Enhancing Critical Analysis and Problem-Solving Skills in Undergraduate Psychology: An Evaluation of a Collaborative Learning and Problem-Based Learning Approach." *Australian Journal of Psychology* 65(1): 38–45. <https://doi.org/10.1111/ajpy.12009>.
- Kopp, Richard R. and Michael Jay Craw. 1998. "Metaphoric Language, Metaphoric Cognition, and Cognitive Therapy." *Psychotherapy: Theory, Research, Practice, Training* 35(3): 306–311. <https://doi.org/10.1037/h0087795>.
- Kruger, Deirdre and Marna Swanepoel. 2017. "Gluing the Pieces Together: Female Adolescents' Construction of Meaning Through Digital Metaphoric Imagery in Trauma Therapy." *The Arts in Psychotherapy* 54: 92–104. <https://doi.org/10.1016/j.aip.2017.04.011>.
- Lambert, Michael J. and Dean E. Barley. 2001. "Research Summary on the Therapeutic Relationship and Psychotherapy Outcome." *Psychotherapy: Theory, Research, Practice, Training* 38(4): 357–361. <https://psycnet.apa.org/doi/10.1037/0033-3204.38.4.357>.
- Legowski, Teresa and Keith Brownlee. 2001. "Working with Metaphor in Narrative Therapy." *Journal of Family Psychotherapy* 12(1): 19–28. [https://doi.org/10.1300/j085v12n01\\_02](https://doi.org/10.1300/j085v12n01_02).
- Mayekiso, Tokozile, Francois Strydom, Vinitha Jithoo, and Lesley-Anne Katz. 2004. "Creating New Capacity Through Postgraduate Selection." *South African Journal of Psychology* 34(4): 657–671. <https://doi.org/10.1177/008124630403400409>.
- Nel, Hennie. 2016. "Psychology Master's Selection and Employment ... prospects in the field of Psychology." PsyTalk. <http://psytalk.psyssa.com/psychology-masters-selection-employment-prospects-field-psychology/>. (Accessed 8 March 2020).

- O'Hare, Liam and Carol McGuinness. 2005. "Skills and Attributes Developed by Psychology Undergraduates: Ratings by Undergraduates, Postgraduates, Academic Psychologists and Professional Practitioners." *Psychology Learning & Teaching* 4(1): 35–42. <https://doi.org/10.2304/plat.2004.4.1.35>.
- Participating University. 2018. "*M Selection: Outlined Rationale and Criteria*."
- Pernicano, Pat. 2014. *Using Trauma-Focused Therapy Stories Interventions for Therapists, Children, and Their Caregivers*. Routledge.
- Pernicano, Pat. 2015. "Using Therapy Stories and Metaphor in Child and Family Treatment." *Liana Lowenstein Newsletter*, 2015. <http://www.lianalowenstein.com/ArticleProfTherapyStories.pdf>.
- Pillay, Anthony L., Rashid Ahmed, and Umesh Bawa. 2013. "Clinical Psychology Training in South Africa: A Call to Action." *South African Journal of Psychology* 43(1): 46–58. <https://doi.org/10.1177/0081246312474411>.
- Rabinowitz, Fredric Eldon and Sam Victor Cochran. 2002. *Deepening Psychotherapy with Men*. Washington, D.C.: American Psychological Association.
- Raskin, Jonathan D. 1999. "Metaphors and Meaning: Constructing the Creative Psychotherapist." *Journal of Constructivist Psychology* 12(4): 331–347. <https://doi.org/10.1080/107205399266046>.
- Rosnow, R. L. and R. Rosenthal. 2005. *Beginning Behavioral Research: A Conceptual Primer*. Upper Saddle River, N.J.: Pearson Prentice Hall.
- Rossi, Sandra, Andreas Maercker, and Eva Heim. 2023. "Metaphors and Related Expressions in Older Adults in the Field of Trauma and Stress-Related Disorders: A Scoping Review." *Metaphor and Symbol* 38(1): 50–69. <https://doi.org/10.1080/10926488.2022.2091446>.
- Rotter, Julian B. 1978. "Generalized Expectancies for Problem Solving and Psychotherapy." *Cognitive Therapy and Research* 2(1): 1–10. <https://doi.org/10.1007/bf01172508>.
- Searight, H. Russell and Barbara K. Searight. 2009. "Implementing Problem-Based Learning in an Undergraduate Psychology Course." *InSight: A Journal of Scholarly Teaching* 4: 69–76. <https://doi.org/10.46504/04200906se>.
- Snow, M. S., R. Ouzts, E. E. Martin, and H Helm. 2005. "Creative Metaphors of Life Experiences Seen in Play Therapy." In *VISTAS: Compelling Perspectives on Counseling*, 63–65. Alexandria, VA: American Counseling Association.
- Stats SA. 2019. Department: Statistics South Africa Republic of South Africa. <https://www.statssa.gov.za/?m=2019>. (Accessed 15 March 2024).
- Strnadová, Iva, Therese M. Cumming, Marie Knox, and Trevor Parmenter. 2013. "Building an Inclusive Research Team: The Importance of Team Building and Skills Training." *Journal of Applied Research in Intellectual Disabilities* 27(1): 13–22. <https://doi.org/10.1111/jar.12076>.
- Sullivan, Michael F., Thomas M. Skovholt, and Len Jennings. 2005. "Master Therapists' Construction of the Therapy Relationship." *Journal of Mental Health Counseling* 27(1): 48–70. <https://doi.org/10.17744/mehc.27.1.171ajdvw9muepht3>.
- Thomas, Theda Ann. 2011. "Developing First Year Students' Critical Thinking Skills." *Asian Social Science* 7(4). <https://doi.org/10.5539/ass.v7n4p26>.
- Wickman, Scott Allen, M. Harry Daniels, Lyle J. White, and Steven A. Fesmire. 1999. "A 'Primer' in Conceptual Metaphor for Counselors." *Journal of Counseling & Development* 77(4): 389–394. <https://doi.org/10.1002/j.1556-6676.1999.tb02464.x>.
- Witztum, Eliezer, Onno van der Hart, and Barbara Friedman. 1988. "The Use of Metaphors in Psychotherapy." *Journal of Contemporary Psychotherapy* 18(4): 270–290. <https://doi.org/10.1007/bf00946010>.
- Zainal, Zaidah. 2007. "Case Study as a Research Method." *Jurnal Kemanusiaan* 5(1). <https://jurnalkemanusiaan.utm.my/index.php/kemanusiaan/article/view/165>.