



Research Report

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Title

**Psychologists in training's Assumption about Mind and Brain in Psychopathology and
Clinical Work**

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ABSTRACT

Research Purpose: The study's objective was to understand how psychologists in training endorsed models of illnesses for mental disorders. The results aimed to understand how they differed in their levels of training, and the results for the theoretical orientations endorsed analysed the mean significance for both the clinical and counselling training groups.

Methodology: The study was conducted using first-year master's clinical and counselling psychology students, and the total sample was $N = 28$. The study's population was drawn from six universities in South African and investigated using a quantitative research design. A survey was used to gather data from the participants, and the data was analysed using the IBM Statistical Package for the Social Sciences (SPSS) software version 27. An analysis of variance test (ANOVA) was used to analyse the data and four research questions compared how the level of endorsement differed across different models of mental disorders, determined any trends for the different levels of endorsement which differed depending on which training programs the participants received, it also determine whether the theoretical orientation of training receiving differed, and lastly determined whether the effects training received differed based on the individual psychotherapy the participants received. The research questions were used as the framework for the study, with four mental disorders used as items, eight models of illness used to analyse the theoretical orientations endorsed, and a Maudsley Attitude Questionnaire (MAQ) used as a measure for the items.

Results: The results indicated a significant difference between the clinical and counselling groups. A line graph illustrated how the mental disorders were endorsed differently, and as a result, the level of endorsement for the social realist model of illness ($M=15.28$, $SD=2.05$) was highly endorsed, and the Nihilist model of illness ($M=8.21$, $SD=2.69$) was the least endorsed.

Discussion: Participants from diverse institutions had an impact on how well they understood the different mental disorders and endorsed the models of illnesses. Considering that there was not enough data entry, there were a few deviations with the data collection and the results could not comply with a larger population of trainee psychologist.

Conclusion: The outcome of this study aims contribute to research in academia in terms of understanding the factors that influence the choice of treating mental disorders and may help enhance psychologists' choice of choosing the correct models of illnesses as a part of intervention in their clinical work.

Keywords: *Models of illnesses, mental disorders, ANOVA, trainee psychologists, theoretical orientation, assumptions*

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CHAPTER 1

INTRODUCTION

1.1 Background

Models of illness influence the type of mental disorder trainee psychologists choose to endorse in their first year of internship. The models of illnesses that were investigated to understand the distinct approaches used by the participants to classify and explain their choice of treatments were behavioural theory, cognitive behavioural theory, and psychodynamic theory. Each theoretical orientation served a distinct purpose as it provided the framework for how the mental disorders were analysed (Grant & Osanloo, 2016). Moreover, the three theoretical orientations examined four different mental disorders, which were *major depressive disorder*, *schizophrenia*, *generalized anxiety disorder*, and *antisocial personality disorder*. There has been research focused on understanding how psychiatrists endorse their models of illnesses, which served as the primary study of this research. Therefore, in order to illustrate and comprehend how the models of illnesses were endorsed for trainee psychologists, the research study investigated the mean comparison of how two psychology groups endorsed mental disorders for models of illnesses.

One might assume that clinical and Counsellor psychologists respond similarly in comparable situations, interpret information about clients similarly, and agree on the desired results in particular circumstances. Previous research found that therapists who applied the behavioural theory assumed that conditioning caused the patient's behaviour and they responded to every given situation or stimulus in a predictable way depending on what they learned (Ivey et al., 1993). The current practice, psychology educational programs diversify theoretical orientation training (Liao et al., 2022). The comparison between the two studies above illustrated that trainee psychologists are more directed by the approach they could choose in their internship year. The data obtained illustrated whether South African trainee psychologists leaned more towards the conventional approach and were more influenced by their educational programs.

Therefore, using a quantitative research design to assess the pattern and selection of mental disorder endorsements was straightforward and gave a clear effect of the independent variables (IV) and dependent variables (DV). The primary study used for this research found that models of illnesses were not endorsed by participants (Harland, et al., 2009). Understanding the background of this study and using pre-existing items for the survey strengthened the discussion about the similarity of the results with other research studies.

1.2 Primary article and previous research findings

The primary article for this study was drawn from a study that investigated the perceptions of trainee psychiatrists toward mental disorders. The primary study's findings were drawn from an article titled '*A study of psychiatrists' notions of mental disorder illness*,' which aimed to assess trainee psychiatrists' understanding of mental illnesses using various models. Despite the lack of formal

investigation into their attitudes towards mental illness, the study illustrated that multiple models of disorders were supported by psychiatrists (Harland et al., 2009). Even so, the perspectives of psychologists and psychiatrists continue to be at opposite ends of a biological-psychosocial continuum, based on earlier studies conducted on the same topic (Read, 2017). The results for comparing the level of endorsement differed across different models of mental disorders, illustrating a pairwise comparison of $p < .03$ and indicating a weak significance for the biological model and for the generalized anxiety disorder. As a result, there was a significant difference in the way that trainee psychologists endorsed mental disorders, which illustrated a similarity with the findings of previous studies. Moreover, Jansen et al., (1988) stated that there was a correlation between therapists' values and variances in their personality traits based on their values as professionals. Their values were linked to personality traits, and differences existed among health professional groups. Furthermore, they showed a greater belief in psychotherapy and cognitive behaviour therapy for depression and anxiety and antipsychotics for schizophrenia, and findings on prognosis showed mostly small differences in beliefs.

The impact of having similar results for the first research question and that of previous study indicates that understanding how models of illness were endorsed was based on comparing the mean average for the different categories of trainee psychologists in comparison to the previous study results. According to Pitman (2002), psychiatrists prescribed treatment, while psychologists followed prescriptions and treated their patients. As distinct as the psychiatrists and psychologists (clinical and counselling) were, their results were similar due to the similarity of the scope of mental disorders. Comparing the mean results of previous studies, there was a probability of having similar findings if the sample size was large.

1.3 Aim

The aim of this study was to better understand how trainee psychologists in different registration categories interpreted mental disorders and supported various models of illnesses in their therapeutic work. An analysis of variance was used to compare the means of the two groups and explore the factors influencing their decision of endorsing the models of illness.

1.4 Objective

The study focused on two psychology groups: Clinical psychology and Counselling psychology. A post hoc test was not used, reason being the study had less than three groups. The primary goals of this research study included understanding how they endorse various mental disorders, examining whether the effects differ based on the training program, whether these effects differ based on the theoretical orientation of the training, and investigating whether the effects were influenced by their individual training.

CHAPTER 2

LITERATURE REVIEW

Secondary research was used for this study, which investigated psychologist's attitudes toward models of illnesses and their philosophical viewpoints and further drew on secondary literature focusing on comparison beliefs, health attitudes and stigma, mental health opinions, the existing gaps, and how effective the analysis of variance was for data analysis. There were common variables such as the demographics; however, the focus of variables investigated were the trainee psychologists, who were the IV, while the four mental disorders were the DV.

2.1 Distinction of Clinical and Counselling psychology

There is no surety as to whether the general population understands the difference between the clinical and counselling professions. Young & Saville Young (2019) in their paper '*Comparing Clinical and Counselling Psychologists' Practitioner Demographics, Key Activities, Theoretical Orientations, Values, and Career Satisfaction: A Contribution to the Scopes of Practice Debate.*' was a study conducted in South Africa. The study provided insight about understanding psychology professions and how their scope was similar and could further help the general population understand the difference (Young & Saville Young, 2019). The study was relevant because it presented aggregated survey results from studies about clinical and counselling psychologists in South Africa, making it useful to clarify the differences between the two professions prior to conducting any research studies to also differentiate how the two professions differ from one another in terms of their specializations.

Given that the Clinical and Counselling scopes the program are similar, their implementation of practices differs, and the difference in the scope of the program has become a major concern in how the trainee psychologists endorse their models of illnesses. In contrast to counselling psychologists, who work collaboratively with researchers or practitioners, clinical psychologists closely work with counselling psychologists. According to Zouch (2021), both professions have a focus on mental health, even though they can both work in places such as hospitals, mental institutions, or private practices. What sets them apart is their clear grasp of their patient's identities and how they apply their profession to endorse the correct models of illnesses. Also, understanding their scope of practice helps identify their field of work. The term 'clinician' is used to refer to psychologists who are licensed and can provide mental health care (Zouch, 2021). In South Africa, this is acceptable once the participants have undergone the process of completing their undergraduate degree, clinical or counselling honours in psychology, mastering their specialized coursework in either of the two fields, 1 year of training as a clinical or counselling psychology intern, and then writing their board exams with the Health Professions Council of South Africa, allowing them to practice under South Africa's health practice scope.

The Scope of Practice (SoP) establishes what practitioners can and cannot do and is often used to highlight the similarities and differences between the two professions in South Africa. Investigating trainee psychologists gave insight about their knowledge of their course work, and how they would

endorse it in their internship year, and profession. Young and Saville Young (2019) stated that both clinicians believe that biological and psychological reasons play a role in mental health. Even though the clinical and counselling internships were different based on the practical implications they used, they received the same SoP demonstrating the commonality between the two professions.

2.2 Comparison of beliefs

To distinguish between the clinical and Counselling professions, one must look at the trainee's theoretical orientation. The three main psychotherapy frameworks used in this study were cognitive behavioural therapy, psychodynamic therapy, and behavioural therapy. Ciorbea and Nedelcea (2012) asserted that practitioners from various theoretical frameworks regularly reject alternative conceptualizations of theoretical orientations without giving them any scientific or philosophical evaluation. This implies that the acceptance of various models of illnesses caused trainee psychologists to differ from one another.

Providing appropriate therapies would raise awareness of mental health issues, reducing their prevalence, and bridge the perception gap between patients and professionals. Young adults were less likely to contact physicians and use mental health facilities, according to Anthony et al., (2009). This indicated that there was a gap that needed to be filled, which may have been filled if patients were made aware of the value of seeking mental health treatment from licensed professionals. The recognition of mental disorders like physical illnesses, requires clinical and counselling psychologist's assistance to close the gap between patients seeking appropriate treatments. According to Anthony et al. (2009), young adults were also more likely to support informal social supports, general counselling, and stress-reduction techniques in general. Lack of awareness of proper protocol while receiving professional assistance results can allow trainee psychologists to have in-depth knowledge about the models of illnesses and help patients understand the value of receiving professional treatment based on seeing the prevalence of mental health decline.

Yet, acquiring a comprehensive understanding of how trainee psychologists support illness models will lessen the prejudice against mental disorders. Girod et al. (2022) stated that inadequate knowledge of models of illnesses could make treating patients less effective. Even so, investigating whether the trainee psychologist's perception of models of illness varied depending on a variety of variables, such as the trainee's level of endorsement, whether receiving individual therapy affected their choice of endorsement, investigating the theoretical orientations of training institutions, and separating the two groups, was important. Counselling students may be open to receiving therapeutically applicable information about mental disease (Girod, 2022). As a result, this supports the notion of de-stigmatizing mental conditions and also helps with interventions that can be used to encourage similar models of illness endorsement for trainee psychologists.

2.3 Mental disorder misconceptions

Mental disorder is a subject that is often perceived and understood differently by individuals and has

a stigma attached to it. One of the numerous descriptions of mental disorder health is subjective well-being, perceived self-efficacy, and awareness of one's own competence (World Health Organization, 2003). The study found that trainee psychologists' theoretical orientations significantly support the mental disorder of major depressive disorder, with a pairwise comparison ($p < .03$), as indicated in (Chapter 5, Figure 1). This demonstrated that trainee psychologists who leaned more towards theoretical orientations were similar. The notion that individual therapy has an impact on how mental disorder are understood does have an impact on how it is further endorsed.

How mental disorders affect individuals and impact their emotions, thoughts, or behaviours is to be considered. According to Corrigan et al. (2014), the discipline of healthcare professionals is expected to moderate stigma effects on treatment responses. This explains how individuals with severe mental disorder issues are treated. The misconception about mental disorders could hinder trainee psychologists from providing effective treatment to patients based on the patient's ability to adapt to the treatment plan. According to Corrigan et al. (2014), providers may be less likely to provide certain healthcare options to individuals with severe mental illness. Furthermore, the stigma associated with mental disorder illness does affect how trainees and patients perceive it in primary healthcare. Individuals frequently view mental disorder health as negative; therefore, stigma against it also includes unfavourable or discriminatory views (Corrigan et al., 2014). Furthermore, healthcare professionals are better able to provide constructive criticism on mental health issues since they have a better grasp of them. The findings of this study also looked at institutional stigma and the ways in which diverse trainee perspectives from different universities in South Africa supported it. This made it easier to understand how various disease models were supported.

The study emphasized trainees' perceptions of mental disorder health, focusing on prevalent diseases like major depressive disorder, schizophrenia, generalized anxiety disorder, and antisocial personality disorder. Due to illnesses in primary care or other healthcare providers, individuals with mental disorders have high rates of mortality and morbidity. Sometimes, this is because of the healthcare standards (Corrigan et al., 2014). Therefore, the endorsement of mental disorder by professionals can change how it affects an individual's perceptions and positions. However, trainees also learn about mental disorder health and need to have a better understanding of it, which can change their perception and how they endorse it due to personal experience.

Even so, based on health outcomes and the understanding of the severity of mental disorders, certain healthcare professional's perspectives on mental disorders may change. Health professional's endorsements of mental disorders may be influenced by the stigma associated with endorsing models of illnesses (Corrigan et al., 2014). Consequently, it is conceivable for attitudes about treatment adherence to reflect the pattern between trainee's stigma of mental disorders (Corrigan et al., 2014). There are many different stigmas that can affect an individual's perceptions of mental disorder illness, such as physical stigma that can result from simply looking at a patient and assuming they are ill or

identification stigma that can result from prior knowledge about an individual that affects the type of mental disorder illness (Corrigan et al., 2014). Further understanding of the trainee's religious background was included in the demographic section, as this could have affected their perceptions of mental disorders. Many facets of mental disorders, such as how individuals perceive health and disorders, how individuals seek therapy, and how individuals cope, can be greatly influenced by culture.

2.4 Mental disorder health misconception

The perspectives of psychologists varied depending on their understanding of mental disorders. The results indicated that trainee psychologist's endorsement of mental disorders was significant; moreover, the philosophical interpretations of mental disorder illnesses were equivalent to psychologists' linguistic evaluations in this regard (Ralston, 2013). Psychologists who have a greater understanding of theoretical orientations are better able to recognize mental disorder problems. However, Harland et al. (2009) made the point that other healthcare practitioners would consider both biological and physiological factors while determining the best course of action. The idea that trainee psychologists endorse various models of illnesses may be supported by understanding the misconception of what mental disorders are.

Understanding mental disorder health misconceptions is crucial to prevent individuals from misinterpreting mental disorder illnesses by looking at the significance of how its stigma is conveyed, which results from how individuals perceive mental disorders. The misconceptions may also result from incorrectly perceiving or misreading mental disorders. According to Zouch (2021), the differences between clinical and counselling psychology derive from the history of each field, which has formed the emphasis and concentration of each profession's educational programs.

Counselling psychologists assess a wide range of psychological issues, including schizophrenia, anxiety, and depression, but they also assist in patient advocacy, which requires a greater understanding of mental disorder. Clinical psychologists, however, also deal with a wide spectrum of severe issues related to both mental disorders and physical health. Additionally, clinical psychologists started to offer psychotherapy, which was only done by psychiatrists, whereas counselling psychologist's work was wide and focused on a variety of contexts, such as college and university counselling centres, university research and teaching roles, private practices, health care settings, hospitals, and organizational consulting groups, among others (Zouch, 2021). This distinguished the scope of work clinical and counselling psychologists did.

2.5 Opinions of mental disorders and exploring the gap in the training programs

Interventions for psychology students could potentially enhance their understanding of psychotherapy by providing in-depth literature throughout their course year, and this will help them with their academic performance and their internship performance, as both of these might enhance the medical care they advocate. According to Villani and Kovess-Masfety (2017), attitudes regarding mental

disease can be changed over time by changes in social views. This can be accomplished by offering more courses that can assist in destigmatizing the negative notion of mental disorders. The study's small sample size highlighted the trend of supporting mental illnesses and suggested the need for more research with a larger sample size. Observing licensed clinicians with extensive experience and a profound understanding of psychotherapy provided valuable insights into their work and interventions.

Studies indicate a significant scarcity of psychiatrists, psychologists, social workers, educational psychologists, and other health professionals (Kepley & Streeter, 2018). Yet, the severity of healthcare professional scarcity is not the only issue related to access to behavioural health care. The availability of behavioural health practitioners in some regions of the nation is limited or non-existent, which raises the issue of maldistribution, which is especially important in areas where poverty is a decisive factor (Kepley & Streeter, 2018). The suggestion to increase the number of clinical and counselling psychologists available could also be explored. If this option had been available, there would have been more entries and volunteers for this study; therefore, this shows the requirement for more healthcare psychologists, or clinical and counselling psychologists in South Africa.

It is imperative to consider the demand for more healthcare professionals given that health work gaps are prevalent not only in South Africa but on other continents as well, according to a report by Kepley and Streeter (2018). For community health workers, there are a variety of programs available, from pre-professional clinical psychology internships to Masters-level social work practice. Given this, it is essential to take into account how many trainees are anticipated to enrol in clinical and counselling programs, since this can increase the possibility that there will be more practitioners available to assist people with mental disorder challenges. Kepley and Streeter (2018) state that trainees spend a lot of time at clinical training sites providing service-supervised services to clients and patients at little to no cost. As a result, clinical and counselling trainees will still undergo supervised internships that will enable them to recognize the appropriate mental illness disorders based on the patient's diagnosis, despite the survey replies from those trainees. According to the Health Professions Council of South Africa (2019), in order to be eligible for their programs, candidates must have a bachelor's degree in psychology, an Honours degree or an accredited Bachelor's of Psychology degree, and have completed courses in psychological assessment, psychopathology, and research methodology. Moreover, the Bachelor's of Psychology Honours equivalent program requires six months of full-time or 12 months of part-time practicum training, with a maximum three-month extension recommended for failure (Health professions Council of South Africa, 2022).

We might therefore argue that the type of service delivery encountered at internship locations can affect how accurately trainees endorse models of illness. Although we must consider the differences between the two professions above in order to train the professionals to provide good service, clinical psychologists and counselling psychologists use the same range of mental disorders. According to Kepley and Streeter (2018), the Behavioural Health Workforce Education and Training (BHWET)

program, and the Health Resources and Services Administration's (HRSA) aim to improve healthcare for marginalized populations. The program's goal is to assist healthcare professionals in receiving ethical training in interprofessional environments that have the benefit of delivering high-quality access to both primary and behavioural healthcare in a single location with less stigma. According to Streeter and Kepley (2018), with the use of such programs or other treatments, trainees may be better prepared to provide the best care and have a deeper understanding of mental disorders throughout their internship years. Moreover, clinical trainees may misdiagnose patients, which may result in inaccurate interventions from counselling trainees, all of which may be caused by wrong interpretations and understandings of mental disorders. As a result, Harland et al., (2009) study strived to deeply examine the trainees' understanding of mental disorder problems because it is obvious that this information plays a crucial role in how they support various models of illnesses.

2.6 Mind and brain dualism

The misconception of mind-brain dualism has contributed to the stigma of mental disorder, as concepts like mind-body dualism show (Raese, 2015). Trainee psychologist's training varied depending on the universities they attended; however, this serves to support the use of various models of illness at different levels of training and answers research question 1.2. According to a study done at the University of Liege, the brain and mind are two separate things (Raese, 2015). Dualism is crucial for trainee psychologists to endorse their mental disorder problems in their clinical work, as it prevents them from misunderstanding their condition. The theoretical perspectives employed in psychotherapy also set the trainees apart.

2.7 Measures used by other studies

The same MAQ-R was used as an instrument in additional investigations. '*Concepts of Mental Disorders in Trainee Clinical Psychologists*' study investigated trainee psychologist's perspectives (Read et al., 2017). Participants in the research study were mental health professionals from the United Kingdom. The interaction of the professionals' responses to the MAQ-R was investigated using a t-test and a two-way repeated measure analysis of variance. The study's findings showed a substantial interaction between the diagnostic category and the model. Another study investigating "Concepts of Mental Disorders in the United Kingdom: Similarities and Differences between the Lay Public and Psychiatrists" looked into which mental disorders were endorsed by the public and psychiatrists as well as how they were perceived by both groups (Butlin et al., 2019). Both local citizens and psychiatrists from the United Kingdom participated in the study. Nevertheless, a repeated measure analysis of variance was performed to investigate the different models of illnesses, and a multivariate analysis of variance was used to compare the findings to a study conducted by (Harland et al., 2009). The findings showed that the general population understood mental disorders better and was more likely to support models of illnesses.

However, the main investigation for this research study concentrated on "A study of psychiatrists'

notions of mental illness," which examined how trainee psychiatry students comprehended mental disorders in a way that supported models of illness (Harland et al., 2009). The article used South London-based psychiatry trainee participants, and a principal component analysis was used to determine the variance information. The findings showed that not all disorders received the same level of endorsement and the endorsement varied by mental problem. The observation that an analysis of repeated measures was frequently employed in both the research study and the studies that used the MAQ-R is noteworthy. Nonetheless, comparing the participant mean differences was the main goal of the analysis of variance. The same MAQ-R was used as an instrument in additional investigations. 'Concepts of Mental Disorders in Trainee Clinical Psychologists' study investigated trainee psychologist's perspectives (Read et al., 2017). Participants in the research study were mental health professionals from the United Kingdom. The interaction of the professionals' responses to the MAQ-R was investigated using a t-test and a two-way repeated measure analysis of variance. The study's findings showed a substantial interaction between the diagnostic category and the model. Even so, how mental illnesses were understood by trainee psychologists indicated strong validity; however, the results cannot be deemed reliable due to the limited sample size. This research may be further carried out within the same group of healthcare professionals and not be limited to South Africa.

CHAPTER 3

RESEARCH QUESTIONS

3.1 Research questions

The aim of the survey was to answer the following research questions.

1. Do trainee psychologists differ in the extent to which they endorse different models of mental disorder?
2. Do these effects differ on the basis of the training program (Clinical and Counselling)?
3. Do these effects differ on the basis of the theoretical orientation of their training?
4. Do these effects differ on the basis of the theoretical orientation of their individual psychotherapy?

CHAPTER 4

METHODOLOGY

4.1 Research Design

In order to learn more about the study and to collect the data in numerical form, a method of quantitative research was used. Using a quantitative approach is that it avoids the notion of bias and ensures the accuracy of research findings. A positivist strategy, which was appropriate for a quantitative research design, was adopted for this study. Selecting a positivist approach was that it placed a stronger emphasis on factual data and has the potential to influence people's behaviour. Also, the social perspective of the trainee psychologists could be applied to explain the findings from the data obtained. The overall focus of the positivist approach was that using trustworthy and representative data may help with regulatory interventions that can be used to implement teaching methods, which can improve participant's understanding of models of illnesses and mental disorders. The study's data was given numerically and an interpretation of the findings were illustrated in (Figure 1) and the tables allowed for the drawing of mean comparison and conclusions.

4.2 Sampling

Demographics criteria

Only the provinces where university students were enrolled in clinical and counselling psychology studies in South Africa met the selection criteria for this study. The approach that was used was appropriate considering the study's small size and its goal of comparing the means of several groups (Stiger, et al., 1998). To organize the data collected and separate clinical psychologists who work with the same scope, a limited group of psychologists was selected. Not all psychologists enrolled as clinicians, for the exclusion criteria a bigger sample and survey consisting of other psychologists in training from different fields such as industrial psychology, research psychology, education psychology, and neuropsychology would have strayed the goal of this study. This would have resulted to data, which is not accurate, as psychology has different fields which contain different learning content.

Sampling procedures

The study had anticipated a total of $n=130$ to $n=150$ participants, or at least $n=20$ to $n=25$ from each university, hence there were fewer participants than anticipated. The survey received 45 entries in total, of which 28 completed the survey after the missing data was removed. Removing missing data helped with the inferences as it could have been greatly skew the results, (Harrell et al., 2015). As mentioned above, this led to a completion rate of $n=28$; nonetheless, the number of entries was insufficient for a quantitative research design. A larger sample would have given more accurate results, but the benefit of using a non-probability sample is that the findings were representative of the overall population.

The criteria for admission to the clinical and counselling M1 program served as the basis for the non-probability selection technique that was used to choose the participants. The non-probability sampling criteria were met by choosing participants who were most likely to be aware of the study's background (Vehoar et al., 2016). It was less expensive to select the participants based on a set of criteria, which prevented having to go to great lengths to find individuals. Even so, it was anticipated that those who were able to complete the online survey would be a greater representation of the M1 trainees studying clinical and counselling psychology. In essence, given the study's participant pool, it was easier to illustrate the findings in the form of descriptive tables in the results section.

Summary of Demographics

Out of the N=28 consenting participants who completed the survey N=18 females and N=10 males. Only N=3 of the participants could speak Afrikaans, N=19 could speak English, N=1 IsiZulu, N=2 Northern Sesotho and N=1 Southern Sesotho, N=1 Setswana, and N=1 other languages. They had received a minimum of 17 years of education in all. A total of 15 University of the Witwatersrand students, 3 University of KwaZulu Natal, 9 University of Johannesburg, and 1 from Nelson Mandela University completed the survey. In the counselling program, there were N = 20 participants, whereas N = 7 participated in the clinical program. All of the participants had undergone individual therapy, N=9 received it for one year, n=5 had done so for two years; N=1, N=7 had received it for more than three years, and N=5 had received it for less than a year. Of all the participants N=28 received individual psychotherapy The survey found that N=27 responded, 'yes' to receiving individual psychotherapy, while 1 responded 'no'

4.3 Measurement tools/research instruments

Although gender variables explained the trends among various gender categories, it was the demographic characteristic that had a greater impact and gave insight on how which trainee group answered online surveys. Nonetheless, participants were given the option not to select a gender that was stated in the survey because the objective was not to limit the research study or make participants feel undervalued. Also, given that the sample size was small, inquiring about the respondents' gender helped dispute occupational prejudices, such as the notion that some professions tend to employ more women than men (He et al., 2019). Although the outcomes suggest that more males participated, the small sample size means that occupational prejudices can be discounted.

The religion variable was adapted for the South African demographics because this research investigation was undertaken there. To help distinguish between the trainee's religion and their guardian's religion, two categories were developed. To see if their religious beliefs varied from those of their guardians, their guardians' religion was requested; nevertheless, the answers had no bearing on the research investigation. Understanding the world requires a critical grasp of religion (Johnson & Grim 2013). Individuals can be taught about religion or given the option to believe in it because religion plays such an important role. Later, this might have an impact on how they perceive the

world.

The initial participants were chosen from six South African universities: Nelson Mandela University, University of Johannesburg, University of KwaZulu Natal, University of Northwest, University of Pretoria, and University of the Witwatersrand. The total years of education variable was used to determine how many years each participant had attended each university. Due to ethical mishaps, the process of obtaining authorization to perform the study at the University of Pretoria did not go as planned. In essence, data was collected from a total of five universities. The survey was conducted with N=93 participants. N=28 respondents completed the survey, N=45 did not complete the survey, and N=17 participants were excluded as they would cause a potential statistical power and hypothesis impact. Even so, it might have contributed bias into the analysis, which would have required the acceptance of an assumption.

4.4 Measuring Instruments

The objective of creating the demographic section was to strongly get an idea of the educational history of the trainee psychologists, in addition to trying to comprehend their traits and educational background. Inquiring about the trainees' ages made it easier to analyse the trends in their survey responses based on their level of schooling. The responses of various age groups in questionnaires vary (Gigliotti, 2014). There was no maximum age for the survey, but because they would be in higher education, a majority of trainee psychologists older than N = 18 years were ensured. The number of years that the trainees were enrolled in their tertiary level was also greatly influenced by their years of study.

Maudsley Attitudes Questionnaire

An updated Maudsley Attitudes Questionnaire (MAQ-R) (Harland et al., 2009) served as the study's primary psychometric tool. The survey was divided into three categories: demographics (See Appendix C), educational background (Section B), and the items from the MAQ-R is in (Section C). Psychiatrists in the United Kingdom were the target audience when the MAQ-R was first developed (Harland et al., 2009). The instrument was altered to fit the South African demography. The MAQ-R was consequently slightly modified to accommodate the trainee psychologists. It also included 32 items for the mental disorders (major depressive disorder, schizophrenia, generalized anxiety disorder, and antisocial personality disorder) as well as eight subscales which were the cognitive, behavioural, social realist, social constructivist, nihilist, spiritualist, and psychodynamic models. They rated the items from a level of strongly agree to strongly disagree, in relation to each of the four disorders on a Likert scale of 1–5, which ranged between (1 = strongly agree) and (5 = strongly disagree).

4.5 Measures and Covariates

The trainee psychologists were the independent variables for the study, while endorsement of the four

mental disorders major depressive disorder (MDD) schizophrenia (s), generalized anxiety disorder (GAD), and antisocial personality disorder were the dependent variables (APD). The theoretical orientations of cognitive behavioural theory (CBT), behavioural theory (BT), and psychodynamic theory (PT) were the basis for understanding the additional research questions.

Quality of measures

Every research topic had a different measure of analysis. The level of endorsement was the independent variable for question 1.1. In order to run an analysis for question 1.1, each model of illness ran four analyses for each mental disorder. The Clinical and Counselling groups, along with the mental disorders were the dependent variable, and eight models of illnesses were the independent variable for question 1.2. With the small number of entries for the survey, the clinical and counselling group had to be computed to 'psychodynamic' and 'other' variables, therefore the psychodynamic and other variables were the dependent variables for questions 1.3 and 1.4, whilst the eight models of illnesses were the independent variables.; given that there were fewer clinical participants than counselling participants, the dependability for question 1.2 was not accurate.

4.6 Data Collection procedure

The survey was developed mid-year in 2021, and participant recruitment took 14 months due to seeking ethical clearance from six universities. A survey instrument tool was utilized as one of the data collection techniques as it helped gather a broad range of data and was created using a REDCap (See Appendix C). The survey was sent out by email, as we chose not to have access to the participant's email to keep the participants anonymous. With the assistance of the course coordinators and lecturers, we contacted the course coordinator and requested that they email the prospective participants. The participants received the survey link from their course coordinators and were able to access the survey.

The study's primary focus was on the participant's clinical practice rather than their educational background. There was no purpose in separating the psychology trainees based on their demographic background or by excluding all of them. The main focus of the research study was determined by the instrument's items. It was necessary to define variables that captured diversity more broadly in order to understand the various ways in which trainee psychologists engaged with and understood their coursework. This further prevented the demographic information from being concentrated on a particular demography while providing a comprehensive picture of how various trainee psychologists supported various theories of mental disorders and diseases.

The study used eight variables, including four independent and four dependent ones. The independent variables included mental disorder models, training categories, orientation training, and individual psychotherapy. The dependent variables were the level of endorsement for different mental disorder models. Another benefit of using an online survey was that it was easier to analyse, easier to use for the researcher, and easier for the participants to use. The importance of designing an online survey is

that it can be managed from a distance, and it is simple to keep track of the responses throughout the data collection procedures (Evans, 2005). The survey included requesting participants to give their informed consent and explaining to them the goal of the research study. Even though it was crucial for the participants to understand what they were agreeing to, there were 6 universities that were contacted to assist in the recruitment of respondents for the online survey. Out of the 6 universities which were contacted, the data was only collected from four universities. Therefore, using ANOVA was useful in assisting examine the multiple variables, producing fewer type I errors and dispersing variation among sources and groups by comparing means.

4.7 Data Analysis

A Two-Way Repeated Analysis of Variance (two-way ANOVA), One-Way Analysis of Variance (one-way ANOVA repeated measure), and multivariant mixed repeated measure (MMRM) were used for the research questions analysis. Accurate statistical reporting makes it easy to find and fix mistakes prior to publishing a report (Weissgerber, et al., 2018). Using ANOVA enhanced the quality of the method section and study, as the means of two groups were compared simultaneously independent variables. In contrast, maintaining homogeneity was challenging and ignoring missing values could not be ignored for accurate results, although there was no outlier with the data. Question 1.1 'Do trainee psychologists differ in the extent to which they endorse different models of mental disorder?' was analysed using a one-way ANOVA repeated measure. Questions 1.3 'Do these effects differ on the basis of the theoretical orientation of their training?' and question 1.4 'Do these effects differ on the basis of the theoretical orientation of their individual psychotherapy?' were analysed using a two-way mixed model ANOVA. Question 1.2 'Do these effects differ on the basis of their training program (Clinical and Counselling)? did not have enough entries for analysis. The inferential statistics were run using the Multivariant Mixed Repeated Measure.

4.8 Analysis of variance impact trainee psychologists

The analysis of variance utilized to perform the research was crucial since it had to adhere to the variables' underlying assumptions. A two-way ANOVA was employed as the analysis technique since it was crucial that the variables used could analyse the data. A two-way ANOVA can be used to calculate earlier related work, claim Iskandar et al. (2016). The Maudsley Attitude Questionnaire was employed in this research study to understand psychiatrist attitudes, and the questionnaire was repeated for trainee psychologists. The two clinical groups were appropriate for the analysis of variance, but the feasibility of this research study required a sufficient number of participants (e.g., figure 1). In this instance, it shows an interaction of the endorsements. The descriptive results for the average sum model for mental disorders and level of endorsement for models of illness indicated that the overall pairwise was $p < .64$, meaning that there was no significance for the major depressive disorder clinical group, and the overall pairwise was $p < .64$ for major depressive disorder endorsed by the counselling group. Since there was no interaction for both major depressive disorders, unbalanced data may lead to uncertainty regarding the dependability of outcomes, according to

Fujikoshi (1993). A follow-up study can strengthen the findings by examining a larger sample to obtain a better understanding of how the trainees interacted in this research study.

4.9 Ethical procedure

Ethical clearance for this study was obtained from the University of the Witwatersrand's Human Research Ethics Committee (Non-medical) (HREC Non-medical; Certificate number: MASPR/21/03). It was a challenge to get further access permission and/or ethical approval from the additional universities targeted for inclusion in the study. The research data collection method had a slight challenge as the University of Pretoria shared that the study had to conform to their Institutional Survey Committee's ethical standards, and state how this study would protect the students' data. The committee requested that that data collection process be adjusted in the research proposal prior to their committee granting this study permission to collect data. The changes were not made, as other universities had already granted this study ethical clearance to collect data. It was too late because permission from other institutions to perform the research had already been granted. We would have needed to resubmit the amended proposal to the other universities if it had changed it. Obtaining ethical clearance from the University of Johannesburg was not a challenge. The registrar requested that we complete their Ethics form, and we were redirected to the lecturers who then shared the survey. Obtaining ethical clearance from the Nelson Mandela University was a not as difficult the registrar requested that we contact the Head of Psychology Department, who then requested that we obtain ethics, we then received our approval letter from the Research Ethics Committee- Human (REC-H). After receiving feedback and clearance to conduct research, the first attempt to collect data was unsuccessful, we then received additional assistance from the lecturers who sent out the survey to their students. At the University of North-West the registrar redirected us to the Research Ethics Support Officer who then requested that we submit our application to the Health Research Ethics Committee (HREC Non-medical), so the application could be reviewed by the Research Data Gatekeeper Committee (RFGC). Obtaining Ethical clearance from the University of Kwa-Zulu Natal quick, as we the register requested that we fill in the Ethical Clearance Form, and an approval letter from the Graduations Office of the registrar.

In research, following the correct ethical principles is crucial. In order to conduct a research report, it was important to follow ethical procedures. The introduction letter sent to the universities included an information sheet (See APPENDIX A), which aimed to inform the respective universities and clinical and counselling psychology masters' trainees about the research study. Participants had the right to know the background of the study (Bless et al., 2013). It was also crucial to emphasize the importance of the participant's anonymity and confidentiality.

The research study required an application form from the Human Research Ethics Committee (HREC) Non-Medical for its execution. The purpose of this was to ensure that the research was conducted in a responsible and ethical way, as mentioned in the participant information sheet. The aim was to assure the participants of what would happen with their data and which population would

benefit from the study, although no incentives were given, participants were able to choose whether they wanted to participate in the research and commence the survey. Furthermore, the participation was voluntary, and the survey was estimated to take a maximum of 30 minutes to complete. Moreover, the participants' responses were saved in a neutral and secure database which was password-protected and their participation in the survey remained anonymous. For anonymity, participants were given a thorough participatory information sheet, which included a consent form and information sheet (IS). The study's objectives were outlined in the information sheet, which also noted that the study's title would be conducted using their data entries.

CHAPTER 5

RESULTS

5.1 Inferential statistics

According to Kinderman (2005), psychological theories are becoming commonly used to explain the aetiology of mental disorders. Based on the level of endorsement for each model of illness, the first four models which are biological, behavioural, cognitive, and psychodynamic are common in psychology academic scopes to help provide a framework that can be used for interventions, compared to the social realist, social constructionist, nihilist, and spirituality. As a result, the inferential statistics section focused on interpreting the first four models as more aetiologic methods are understood. will focus on interpreting the first four models as they are more of etiological models and better understood by psychology students. In contrast, the last four models are not commonly used as theoretical orientations however they were still included as part of the theoretical orientations assessed, taking into account that the items in the instrument were more of ideological commentary questions for mental disorder seeking to understand how psychology used models of illness to treat mental disorders.

5.2 Table 1

Summary of demographics and academic background of the participants.

Demographic/academic background variable	Frequency No. of respondents (%)	Percentage (%)
Gender	28	(100%)
Female	18	(64.3%)
Male	10	(35.7%)
Age in years	28	(100%)
21 to 23	1	(3.6%)
24 to 26	11	(39.3%)
27 to 29	5	(17.9%)
30 to 35	3	(10.7%)
33 to 35	3	(10.7%)
36 to 38	2	(7.1%)
39 to 41	1	(3.6%)
42 to 44	1	(3.6%)
45 or older	1	(3.6%)

Home language	28	(100%)
Afrikaans	3	(10.7%)
English	19	(67.9%)
IsiZulu	1	(3.6%)
Northern Sotho	2	(7.1%)
Southern Sotho	1	3.6%)
Setswana	1	(3.6%)
Other	1	(3.6%)
Religious belief	28	(100%)
Agnostic self	3	(10.7%)
Agnostic parent/guardian 1	-	-
Agnostic parent/guardian 2	1	(3.6%)
Atheist self	3	(10.7%)
Atheist parent/guardian 1	-	-
Atheist parent/guardian 2	-	-
Buddhist self	-	-
Buddhist parent/guardian 1	-	-
Buddhist parent/guardian 2	-	-
Christianity self	10	(35.7%)
Christianity parent/guardian 1	20	(71.4%)
Christianity parent/guardian 2	18	(64.3%)
Hindu self	3	(10.7%)
Hindu parent/guardian 1	3	(10.7%
Hindu parent/guardian 2	3	(10.7%)
Islam self	-	-
Islam parent/guardian 1	-	-
Islam parent/guardian 2	-	-
Jewish self	2	(7.1%)

Jewish parent/guardian 1	3	(10.7%)
Jewish parent/guardian 2	3	(10.7%)
Other - self	5	(17.9%)
Other - parent/guardian 1	1	(3.6%)
Other - parent/guardian 2	1	(3.6%)
Category of psychological training	28	(100%)
Clinical	7	(25.0%)
Counselling	20	(71.4%)
No response	1	(3.6%)
Individual psychotherapy	28	(100%)
Yes	27	(96.4%)
No	1	(3.6%)
Individual psychotherapy	28	(100%)
One year	9	(32.1%)
Two years	5	(17.1%)
Three years	1	(3.6%)
More than three years	7	(25%)
Less than a year	5	(17.9%)

5.3 Table 2

Descriptive statistics of the average sum model for mental disorders and level of endorsement for models of illness (range 4-20).

Model	MDD m(sd)[range]	GAD m(sd)[range]	S m(sd)[range]	APD m(sd)[range]
Biological	11.89(2.67) [6-16]	11.86 (2.69) [6-16]	15.07 (2.10) [11-19]	12.35 (3.09) [5-19]
Behavioural	13.39(2.65) [8-19]	13.96 (2,71) [8-20]	12.46 (1.66) [9-15]	13.46 (2.2) [9-18]
Cognitive	13(2.84) [7-18]	13.46 (2.86) [7-18]	9.89 (2.34) [6-15]	10.53 (2.80) [6-16]
Psychodynamic	13.39 (2.49) [8-19]	13.46 (2.08) [7-16]	12 (2.27) [6-16]	13.53 (2.24) [9-17]
Social Realist	15.25 (2.33) [11-19]	15.07 (2.52) [11-20]	12.96 (2.96) [6-18]	13.78 (3.44) [7-20]
Social Constructionist	12.25 (2.74) [7-19]	11.82 (2.80) [5-18]	11.56 (3.08) [5-17]	10.92 (2.78) [5-17]
Nihilist	8.21 (2.69) [4-14]	8.36 (2.57) [4-14]	7.42 (2.78) [4-12]	7.67 (3.00) [4-14]
Spiritual	9.64 (2.12) [5-13]	9.60 (1.98) [5-13]	9.21 (2.46) [4-14]	9.28 (2.29) [4-13]

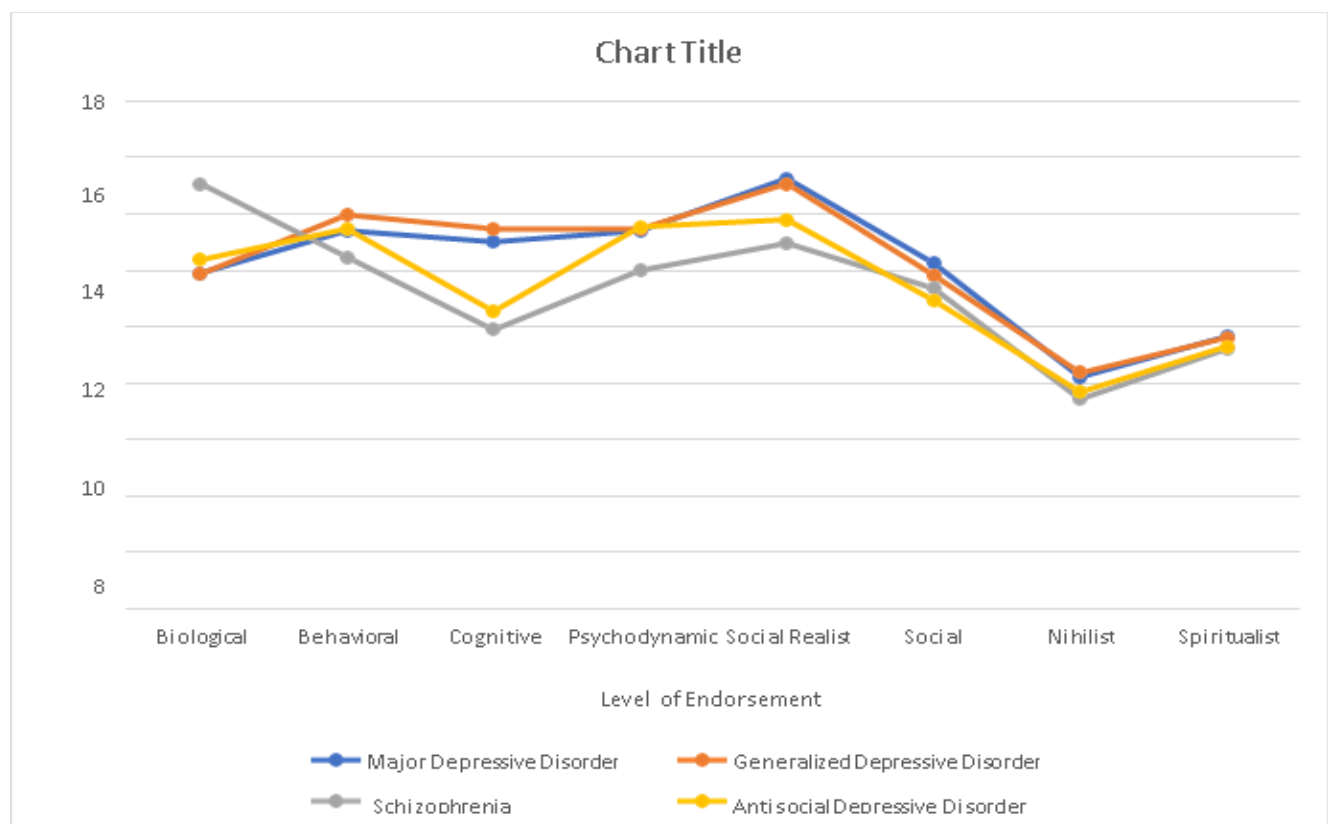
Note: Values are given as; m=(mean), sd=(standard deviation), range=[Range]. Mental disorders are represented as; major depressive disorder (*mdd*), generalized anxiety disorder (*gad*), schizophrenia (*s*), and antisocial personality disorder (*apd*).

A one-way ANOVA repeated measure analysis of variance was used to get the results for the level of endorsement of models of illnesses and mental disorders in question 1.1. The purpose of the one-way ANOVA repeated measure analysis of variance was to determine the mean difference of the models of illnesses endorsement of mental disorders. As a result, a mixed model repeated measure was further used to analyse the mean difference of the group, and also look at the interaction of the models of illness of mental disorders (e.g., figure 1).

5.4 Figure 1

Line graph of the average sum model for mental disorders and level of endorsement for models of illnesses.

Figure 1. Line graph comparing the highest to least endorsed mental disorder.



The social realist model of illness received the highest level of endorsement among the models for major depressive disorder. ($M=15.25$, $SD=2.33$), and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.21$, $SD=2.69$). As a result, based on the first four models of illnesses the psychodynamic model received the highest level of endorsement ($M=13.39$, $SD=2.49$). The test for the within-subject effect was $p<.001$, and $\eta^2 = .47$ which indicates a medium effect size $F(7,18) = 24.32$, and the mean square error $MSE= 5.7$, therefore the pairwise comparison $p<.001$ indicating a significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.89$, $SD=2.67$). The test for within-subject effect $p<.001$, and $\eta^2 = .47$ which indicated a medium effect size. The $F(7,18) = 24.32$, and the mean

square error MSE= 5.7, as well as the pairwise comparison $p < .03$ were weak and indicated significance for the biological model for major depressive disorder.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.07$, $SD=2.52$), and the least level of endorsement received by any of the models was for the Nihilist model of illness ($M=8.35$, $SD=2.57$). The social realist model was mostly agreed with based on the average mean being high, while the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model received the highest level of endorsement ($M=13.96$, $SD=2.71$). The test for the within-subject effect was $p < .001$, and $\eta^2 = .47$ which indicated a medium effect size. $F(7,18) = 24.68$, and the mean square error MSE= 5.8, therefore the pairwise comparison $p < .001$ indicated a significance for the behavioural model for generalized anxiety disorder. The least endorsed model of illness was the biological model ($M=11.85$, $SD=2.69$). The test for the within-subject effect $p < .001$, and $\eta^2 = .48$ which indicated a medium effect size. The $F(7,18) = 24.32$, and the mean square error MSE= 5.8, as well as the pairwise comparison $p < .03$ indicated a weak significance for the biological model for the generalized anxiety disorder.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15.07$, $SD=2.10$), and the least level of endorsement received by any of the models was for the Nihilist model of illness ($M=7.42$, $SD=2.78$). The biological model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model received the highest level of endorsement ($M=15.07$, $SD=2.10$). The test for within-subject effect $p < .001$, and $\eta^2 = .52$ which indicates a medium effect size. The $F(7,18) = 29.53$, and the mean square error MSE=5.4, as well as the pairwise comparison $p < .001$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=9.89$, $SD=2.34$). The test for within-subject effect $p < .001$, and $\eta^2 = .47$ which indicated a medium effect size. The $F(7,18) = 29.53$, and the mean square error MSE= 5.4, as well as the pairwise comparison $p < .001$ indicated a significance for the cognitive model for major depressive disorder.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for psychodynamic ($M=13.53$, $SD=2.23$), and the least level of endorsement received by any of the models was nihilist ($M=7.67$, $SD=3.00$). The psychodynamic model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.54$, $SD=2.23$). The test for within-subject effect $p < .001$, and $\eta^2 = .43$ which indicated a medium effect size. The $F(7,18) = 21.14$, and the mean square error MSE= 6.5, as well as the pairwise

comparison $p < .001$ indicated a significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10.53$, $SD=2.80$). The test for within-subject effect $p < .001$, and $\eta^2 = .43$ which indicates a medium effect size. The $F(7,18) = 21.14$, and the mean square error $MSE=6.5$, as well as the pairwise comparison $p < .03$ indicated a significance for the cognitive model for major antisocial personality disorder.

The line graph illustrated the level of endorsement with the four disorders by mode (e.g., Figure 1). The mean and the standard deviations of the average sum of model scores by level of endorsement model are represented (See Table 3). The X axis illustrated the eight models of illnesses which were of biological, behavioural, cognitive, psychodynamic, social realist, social constructionist, nihilist, and spiritualist. The X-arises illustrated the average sum of the mental disorders which were major depressive disorder, generalized anxiety disorder, schizophrenia, and antisocial personality disorder. These Models of illnesses answer therefore, the research questions which aimed to understand how behavioural therapy, psychodynamic therapy, and cognitive therapy were better understood by the trainees. Based on the descriptive table means, the highest level of endorsement for all the models of illnesses was the social realist model ($M=15.25$, $SD=2.33$), whilst nihilist ($M=15.25$, $SD=2.33$) was the least endorsed model. Every model was answered on the Likert scale of strongly agree to strongly disagree, in essence, based on the line graph the trainee psychologist strongly agreed with the endorsing social realist model and disagreed on highly endorsing the nihilist model (e.g., Figure 1).

5.5 Table 3

Descriptive statistics of the average sum model for mental disorders and level of endorsement for models of illness (range 4-20).

Model	MDD m(sd)[[range]		GAD m(sd)[[range]		S m(sd)[[range]		APD m(sd)[[range]	
	Clinical	Counselling	Clinical	Counselling	Clinical	Counselling	Clinical	Counselling
Biological	11.71(2.36)[9-16]	12(2.88)[6-16]	12(2.23)[9-16]	11.71(2.9)[6-16]	15.14(2.04)[12-18]	15.2(2.12)[11-19]	13.57(3.1)[10-19]	12(3.13)[5-19]
Behavioural	14.85(1.67)[12-16]	13(2.80)[8-19]	15.71(1.38)[13-17]	13.4(2.89)[8-20]	12.43(1.4)[11-15]	12.6(1.73)[9-15]	14.29(1.6)[13-17]	13.3(2.34)[9-18]
Cognitive	11.28(2.75)[9-17]	13.70(2.69)[7-18]	12.57(3.21)[9-18]	13.85(2.8)[7-18]	9.29(2.69)[7-15]	10(2.27)[6-15]	9.57(2.94)[7-16]	10.95(2.8)[6-15]
Psychodynamic	14.28(3.30)[10-19]	13.35(1.89)[8-16]	13.71(2.63)[10-16]	13.45(1.96)[7-16]	11.29(2.98)[6-14]	12.25(2.07)[8-16]	13.14(2.73)[10-16]	13.8(2.07)[9-17]
Social Realist	15.28(2.05)[13-19]	15.30(2.51)[11-19]	15.14(2.27)[12-19]	15.25(2.55)[11-20]	13.43(2.79)[9-16]	12.75(3.14)[6-18]	14.14(3.08)[10-19]	13.75(3.7)[7-20]
Social Constructionist	12.71(4.53)[7-19]	12.05(2.01)[9-16]	12.29(3.95)[7-18]	11.75(2.45)[5-16]	10.86(4.14)[5-17]	11.6(2.8)[7-16]	10.43(4.04)[5-17]	11.15(2.39)[5-16]
Nihilist	6.71(2.13)[4-10]	8.60(2.74)[4-14]	6.68(2.19)[4-10]	8.75(2.55)[5-14]	6.14(2.48)[4-11]	7(2.77)[4-12]	6.57(3.31)[4-13]	7.9(2.88)[4-14]
Spiritual	8,85(2,79)[6-13]	9,85(1,89)[5-13]	8,71(2,63)[6-13]	9,85(1,73)[5-13]	8,57(2,51)[6-13]	9,4(2,54)[4-14]	8,71(2,36)[6-13]	9,4(2,33)[4-13]

Note: Values are given as; m=(mean), sd=(standard deviation), range=[Range]. The clinical and counselling trainee groups are represented as, Clinical (n=7), Counselling (n=20). Mental disorders are represented as; major depressive disorder (mdd), generalized anxiety disorder (gad), schizophrenia (s), and antisocial personality disorder (apd).

The purpose for table 3 was to continue with the trend in for question 1.1 (see Table 2). and determine whether the level of endorsement for the different models of mental disorders differed according to the training category, for the clinical or counselling psychology students. In accordance with question 1.3, each mental disorder was compared to the eight model of illness in relation to the two training categories (see table 3).

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.28$, $SD=2.05$) by the clinical group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=6.71$, $SD=2.13$) by the clinical group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model was highly endorsed with a ($M=14.85$, $SD=1.67$). The test for within-subject effect $p<.06$, and $\eta^2 =.0.7$ which indicated a large effect size. $F(7,17) =1.9$, and the mean square error $MSE= 5.5$, therefore the pairwise comparison $p<.06$ indicated no significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=11.28$, $SD=2.75$). The test for within-subject effect $p<.06$, and $\eta^2 =.07$ which indicated a large effect size. $F(7,17) =1.9$, and the mean square error $MSE= 5.5$ therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.47$ indicating a significance, and $\eta^2 =.009$ which indicated a large effect size. $F(1,25) =.22$, the mean square error $MSE= 13.37$, and the overall pairwise is $p<.64$ also indicating that there was no significance for the major depressive disorder clinical group.

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.30$, $SD=2.51$) by the counselling group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.60$, $SD=2.74$) by the counselling group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.35$, $SD=1.89$). The test for within-subject effect $p<.06$, and $\eta^2 =.5.5$ which indicated a medium effect size. $F(7,17) =1.9$, and the mean square error $MSE= 5.5$, therefore the pairwise comparison $p<.06$ indicated no significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=12$, $SD=2.88$). The test for within-subject effect $p<.001$, and $\eta^2 =.52$ which indicated a medium effect size. $F(7,17) =1.9$, and the mean square error $MSE= 5.5$, and the test of between-subjects effect $p<.64$, and $\eta^2 =.009$ which indicates a large effect size. $F(1,2) =.22$, and the mean square error $MSE= 13.37$, therefore the pairwise comparison $p<.001$ was indicated no significant difference, and the overall pairwise is $p<.64$ for the biological model for major depressive disorder endorsed by the counselling group, so there was no significant difference.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the behavioural model of illness ($M=15.71$, $SD=1.38$) by the clinical group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=6.68$, $SD=2.19$) by the clinical group. The behavioural model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model was mostly endorsed with ($M=15.71$, $SD=1.38$). The test for within-subject effect $p<.027$, and $\eta^2 = .05$ which indicated a medium effect size. $F(7,13) = 1.03$, and the mean square error $MSE= 5.98$, therefore the pairwise comparison $p<.06$ indicated no significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the biological model ($M=12$, $SD=2.23$). The test for within-subject effect $p<.27$, and $\eta^2 = .05$ which indicated a large effect size. $F(7,13) = 1.03$, and the mean square error $MSE= 5.98$, therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.43$, therefore, there was a significant difference and $\eta^2 = .033$ which indicated a large effect size. $F(1) = .19$, the mean square error $MSE= 7.6$, and the overall pairwise is $p<.71$ indicating that there was no significant difference for the generalized anxiety disorder clinical group.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.25$, $SD=2.55$) by the counselling group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.75$, $SD=2.55$) by the counselling group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the cognitive model was mostly endorsed with ($M=13.45$, $SD=1.96$). The test for within-subject effect $p<.001$, and $\eta^2 = .05$ which indicated a large effect size. $F(7,13) = 1.03$, and the mean square error $MSE= 5.98$, therefore the pairwise comparison $p<.001$ indicated a significance for the cognitive model for major depressive disorder. The least endorsed model of illness was the biological model ($M=12$, $SD=2.9$). The test for within-subject effect $p<.02$, and $\eta^2 = .05$ which indicated a large effect size. $F(7,13) = 1.03$, and the mean square error $MSE= 5.98$, therefore the pairwise comparison $p<.001$ was and indicated a significance for the biological model for generalized anxiety disorder endorsed by the counselling group. The test of between- subjects effect $p<.43$ therefore, there was a significant difference, and $\eta^2 = .033$ which indicates a large effect size. $F(1) = 19$, the mean square error $MSE= 7.63$, and the overall pairwise is $p<.71$ there therefore there is no significant difference for the generalized anxiety disorder counselling group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15.14$, $SD=2.04$) by the clinical group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=6.14$, $SD=2.48$) by the clinical group. The biological model was mostly agreed with based on the average mean being high,

whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=15.14$, $SD=2.04$). The test for within- subject effect $p < .02$, and $\eta^2 = .02$ which indicated a large effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$, therefore the pairwise comparison $p < .02$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=9.29$, $SD=2.69$). The test for within-subject effect $p < .06$, and $\eta^2 = .02$ which indicated a large effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .45$ therefore, there was a significant difference, and $\eta^2 = .03$ which indicated a medium effect size. $F(1,19) = .58$, the mean square error $MSE = 7.29$, and the overall pairwise is $p < .29$ therefore, there was a significant difference for the schizophrenia disorder, clinical group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15.2$, $SD=2.12$) by the counselling group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7$, $SD=2.77$ by the counselling group. The biological model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=15.2$, $SD=1.12$). The test for within- subject effect $p < .06$, and $\eta^2 = .07$ which indicated a large effect size. $F(7,17) = 1.9$, and the mean square error $MSE = 5.5$, therefore the pairwise comparison $p < .06$ indicated no significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10$, $SD=2.27$). The test for within-subject effect $p < .06$, and $\eta^2 = .07$ which indicated a large effect size. $F(7,17) = 1.9$, and the mean square error $MSE = 5.5$ therefore the pairwise comparison $p < .06$ indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .45$ therefore, there was significant difference, and $\eta^2 = .03$ which indicated a medium effect size. $F(1,19) = .58$, the mean square error $MSE = 7.29$, and the overall pairwise is $p < .29$ therefore, there was significant difference for the schizophrenia disorder, counselling group.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=14.14$, $SD=3.08$) by the clinical group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=6.57$, $SD=3.31$ by the clinical group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=13.57$, $SD=3.1$). The test for within-subject effect $p < .04$, and $\eta^2_p = .41$ which indicated a medium effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$, therefore the pairwise comparison $p < .06$ indicated no significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=9.57$, $SD=2.94$). The test for within-subject effect $p < .02$, and $\eta^2_p = .41$ which

indicated a medium effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$ therefore the pairwise comparison $p < .06$ indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .51$ therefore, there was significant difference, and $\eta^2 = .009$ which indicated a large effect size. $F(1,25) = .22$, the mean square error $MSE = 13.37$, and the overall pairwise is $p < .47$ therefore, there was significant difference for the antisocial personality disorder, clinical group.

Based on the antisocial personality disorder the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=13.8$, $SD=2.07$) by the counselling group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.9$, $SD=2.88$) by the counselling group. The psychodynamic model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.8$, $SD=2.07$). The test for within-subject effect $p < .06$, and $\eta^2 = .41$ which indicates a large effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$, therefore the pairwise comparison $p < .06$ indicated no significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10.95$, $SD=2.8$). The test for within-subject effect $p < .01$, and $\eta^2 = .41$ which indicated a large effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$ therefore the pairwise comparison $p < .01$ indicated a significance for the for major depressive disorder. The test of between-subjects effect $p < .51$ therefore, there was significant difference, and $\eta^2 = .02$ which indicated a large effect size. $F(1,19) = .44$, and the mean square error $MSE = 13.37$ for the antisocial personality disorder, counselling group.

5.6 Table 4

Descriptive statistics for the aggregate theoretical orientation scores and by model (range4-20).

Model	MDD		GAD		S		APD	
	m(sd)[range]		m(sd)[range]		m(sd)[range]		m(sd)[range]	
	Psycho	Other	Psycho	Other	Psycho	Other	Psycho	Other
Biological	11.71(2.36)[9-16]	11.62(3.12)[6-16]	12.47(2.23)[9-16]	11.15(3.08)[6-16]	15.13(2.2)[12-18]	15(2.08)[11-19]	12.53(2.95)[7-19]	12.51(3.39)[5-19]
Behavioural	13.8(3)[8-19]	12.92(2.22)[9-16]	14.53(2.97)[8-20]	13.31(2.320)[9-17]	12.27(1.49)[10-15]	12.69(1.89)[9-15]	13.47(2.42)[9-18]	13.46(2.03)[5-16]
Cognitive	12.6(2.77)[9-18]	13.46(2.96)[7-17]	13.33(2.96)[9-18]	13.62(3.04)[7-17]	9.47(2.18)[7-15]	10.38(2.47)[7-15]	10(2.73)[6-16]	11.15(2.88)[7-15]
Psychodynamic	13.87(2.88)[8-19]	12.58(1.95)[8-15]	13.73(2.05)[10-16]	13.15(2.15)[7-16]	11.73(2.91)[6-16]	12.31(1.25)[10-15]	13.4(2.64)[9-17]	13.69(1.75)[9-16]
Social Realist	15.33(2,.6)[11-19]	15.15(2.51)[11-19]	15.13(2.56)[11-19]	15(2.58)[11-20]	13(2.07)[9-16]	12.92(3.84)[6-18]	13.93(3.49)[8-20]	13.62(3.52)[7-19]
Social Constructionist	11.93(3.22)[7-19]	12.62(2.14)[9-16]	11.2(3.26)[5-18]	12.54(2.07)[9-16]	10.6(3.4)[5-17]	12.23(2.52)[8-16]	10.13(3.14)[5-17]	11.85(2.08)[8-16]
Nihilist	7.67(2.26)[4-11]	8.85(3.11)[4-14]	7.93(2.31)[4-11]	8.85(2.85)[5-14]	6.87(2.53)[4-11]	8.08(3.01)[4-12]	7.13(2.83)[4-13]	8.31(3.2)[5-14]
Spiritual	9.6(2.2)[6-13]	9.69(2.14)[5-12]	9.53(2.13)[6-13]	9.69(1.89)[5-12]	9.2(2.62)[6-14]	9.23(2.39)[4-12]	9.12(2.23)[6-13]	9.46(2.44)[4-13]

Note: Values are given as; m=(mean), sd=(standard deviation), range=[Range]. The clinical and counselling trainee groups are represented as, Psychodynamic (n=15), Other (n=13). Mental disorders are represented as; major depressive disorder (mdd), generalized anxiety disorder (gad), schizophrenia (s), and antisocial personality disorder (apd).

The aim for Table 4. was to continue with the trend in for question 1.1 (see Table 3). and determine whether the level of endorsement for the different models of mental disorders differed based on the training program the clinician and counselling students received. In accordance with question 1.3 each mental disorder was compared to the eight model of illness in relation to the two training categories the psychodynamic and other group the (see table 4). Nevertheless, due to the unequal number of entries received in the instrument, the clinical and counselling psychology groups were not enough because there were fewer participants. As a result, the two groups were categorized into the 'psychodynamic' and 'other'.

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.33$, $SD=2.26$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.67$, $SD=2.26$ by the psychodynamic group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.87$, $SD=2.88$). The test for within-subject effect $p<.58$, and $\eta^2 = .42$ which indicates a medium effect size. The f-value for the psychodynamic model was high, being $F(7,18) = 80$ meaning that group means were high and no significance, and the mean square error $MSE= 4.68$, therefore the pairwise comparison $p<.06$ indicated no significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.71$ $SD=2.36$). The test for within-subject effect $p<.58$, and $\eta^2 = .42$ which indicates a medium effect size. $F(7,18) = .80$, and the mean square error $MSE= 4.68$ therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.75$, and $\eta^2 = .00$ which indicated a large effect size. $F(1,26) = .13.21$, the mean square error $MSE= 13$, and the overall pairwise is $p<.82$, therefore, there is no significant difference for the major depressive disorder psychodynamic group.

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.15$, $SD=2.51$) by the 'other' group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=78.85$, $SD=3.11$) by the 'other' group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the cognitive model was mostly endorsed with ($M=13.45$, $SD=11.62$) The test for within-subject effect $p<.58$, and $\eta^2 = .42$ which indicates a medium effect size. $F(7,18) = .80$, and the mean square error $MSE= 4.68$, therefore the pairwise comparison $p<.06$ indicated no significance for the cognitive model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.62$ $SD=3.12$). The test for within-subject effect $p<.58$, and $\eta^2 = .42$ which indicated a medium effect size. $F(7,18) = .80$, and the mean square error $MSE= 4.68$ therefore the

pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .75$, and $\eta^2 = .009$ which indicated a large effect size. $F(1,26) = .13.21$, the mean square error $MSE = 13$, and the overall pairwise is $p < .82$ therefore, there is no significant difference for the major depressive disorder ‘other’ group.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M = 15.13$, $SD = 2.56$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M = 7.93$, $SD = 2.31$) by the psychodynamic group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model was mostly endorsed with ($M = 14.53$, $SD = 2.97$). The test for within-subject effect $p < .61$, and $\eta^2 = .03$ which indicates a small effect size. $F(7,13) = .76$ and the mean square error $MSE = 4.4$, therefore the pairwise comparison $p < .06$ indicated no significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the biological model ($M = 12.47$, $SD = 2.23$). The test for within-subject effect $p < .61$, and $\eta^2 = .03$ which small a large effect size. $F(7,13) = .76$, and the mean square error $MSE = 4.4$, therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .2.90$ therefore, there was a significant difference, and $\eta^2 = .05$ which indicated a large effect size. $F(1,19) = .11$, the mean square error $MSE = 13$, and the overall pairwise is $p < .45$ therefore, there was a significant difference for the generalized anxiety disorder psychodynamic group.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M = 15$, $SD = 2.58$) by the ‘other’ group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M = 8.85$, $SD = 2.85$) by the ‘other’ group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the cognitive model was mostly endorsed with ($M = 13.62$, $SD = 3.04$). The test for within-subject effect $p < .027$, and $\eta^2 = .05$ which indicates a medium effect size. $F(7,13) = 1.03$, and the mean square error $MSE = 5.98$, therefore the pairwise comparison $p < .06$ indicated no significance for the cognitive model for major depressive disorder. The least endorsed model of illness was the biological model ($M = 11.15$, $SD = 3.08$). The test for within-subject effect $p < .27$, and $\eta^2 = .05$ which indicates a medium effect size. $F(7,13) = 1.03$, and the mean square error $MSE = 5.98$, therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .29$ therefore, there was a significant difference, and $\eta^2 = .033$ which indicated a large effect size. $F(1) = .19$, the mean square error $MSE = 7.6$, and the overall pairwise is $p < .45$ therefore, there was a significant difference for the generalized anxiety disorder ‘other’ group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15.13$, $SD=2.2$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=6.87$, $SD=2.53$) by the psychodynamic group. The biological model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=15.13$, $SD=2.2$). The test for within-subject effect $p < .02$, and $\eta^2 = .02$ which indicated a large effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$, therefore the pairwise comparison $p < .02$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=9.47$, $SD=2.18$). The test for within-subject effect $p < .06$, and $\eta^2 = .02$ which indicates a small effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .75$ therefore, there is no significant difference, and $\eta^2 = .03$ which indicated a small effect size. $F(1,19) = .58$, the mean square error $MSE = 7.29$, and the overall pairwise is $p < .38$ therefore, there was a significant difference for the schizophrenia disorder, psychodynamic group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15$, $SD=2.08$) by the 'other' group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.08$, $SD=3.01$) by the 'other' group. The model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=15$, $SD=2.08$). The test for within-subject effect $p < .02$, and $\eta^2 = .02$ which indicated a small effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$, therefore the pairwise comparison $p < .02$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10.38$, $SD=2.47$). The test for within-subject effect $p < .06$, and $\eta^2 = .02$ which indicates a small effect size. $F(7,13) = .03$, and the mean square error $MSE = 2.28$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the major depressive disorder. The test of between-subjects effect $p < .75$ therefore, there is no significant difference, and $\eta^2 = .03$ which indicated a large effect size. $F(1,19) = .58$, the mean square error $MSE = 7.29$, and the overall pairwise is $p < .38$ therefore, there was a significant difference for the schizophrenia disorder, 'other' group.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=13.93$, $SD=3.49$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.13$, $SD=2.83$) by the psychodynamic group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result,

based on the first four models of illnesses the behavioural model was mostly endorsed with ($M=13.47$, $SD=2.42$). The test for within-subject effect $p < .04$, and $\eta^2_p = .41$ which indicated a medium effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$, therefore the pairwise comparison $p < .06$ indicated no significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10$, $SD=2.73$). The test for within-subject effect $p < .02$, and $\eta^2_p = .41$ which indicated a large effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .92$ therefore, there is no significant difference, and $\eta^2 = .009$ which indicated a medium effect size. $F(1,25) = .22$, the mean square error $MSE = 13.37$, and the overall pairwise is $p < .75$ therefore, there is no significant difference for the antisocial personality disorder psychodynamic group.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=13.47$, $SD=2.36$) by the 'other' group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.27$, $SD=2.53$) by the 'other' group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.47$, $SD=2.36$). The test for within-subject effect $p < .04$, and $\eta^2_p = .41$ which indicated a medium effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$, therefore the pairwise comparison $p < .06$ indicated a significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.67$, $SD=3.03$). The test for within-subject effect $p < .02$, and $\eta^2_p = .41$ which indicates a large effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .92$ therefore, there is no significant difference, and $\eta^2_p = .009$ which indicated a small effect size. $F(1,25) = .22$, the mean square error $MSE = 13.37$, and the overall pairwise is $p < .75$ therefore, there is no significant difference for the antisocial personality disorder 'other' group.

5.7 Table 5

Descriptive statistics for the aggregate theoretical orientation for individual psychotherapy scores and by model (range 4-20).

Model	MDD m(sd)[range]		GAD m(sd)[range]		S m(sd)[range]		APD m(sd)[range]	
	Psycho	Other	Psycho	Other	Psycho	Other	Psycho	Other
Biological	11.73(2.28)[8-15]	11.64(2.29)[8-15]	11.67(3.02)[6-16]	11.67(3.03)[6-16]	15.18(2.36)[11-18]	15(2.1)[12-19]	12.73(2.97)[8-19]	11.93(3.37)[5-19]
behavioural	13.64(2.77)[9-19]	13.6(2.61)[8-17]	14.55(3.14)[9-20]	13.73(2.55)[8-17]	12.55(1.63)[9-15]	12.61(1.76)[10-15]	13.45(2.58)[9-18]	13.87(1.68)[11-16]
Cognitive	12.45(3.5)[8-18]	13.33(2.53)[7-17]	13.09(3.51)[8-18]	13.8(2.6)[8-18]	9.64(2.62)[7-15]	10.27(2.09)[7-15]	10.55(3.14)[7-16]	10.8(2.57)[7-15]
Psychodynamic	14.18(2.52)[10-19]	12.87(2.59)[8-16]	13.55(1.97)[10-16]	13.47(2.36)[7-16]	11.73(3.07)[6-16]	12.27(1.75)[8-15]	13.27(2.8)[9-17]	14(1.51)[11-16]
Social Realist	16(2.19)[13-19]	15.73(2.33)[12-19]	15.13(2.39)[11-20]	13.18(2.32)[9-16]	13.18(2.32)[9-16]	13.13(3.64)[10-20]	14.64(3.5)[10-20]	13.73(3.26)[7-19]
Social Constructionist	11.93(2.05)[8-15]	12.45(3.15)[7-18]	11.67(1.99)[8-15]	11.73(3.44)[5-17]	11.73(3.44)[5-17]	11.27(2.87)[8-16]	11.73(3.23)[5-17]	10.67(2.09)[8-15]
Nihilist	8.73(3.2)[4-14]	8.07(2.4)[4-11]	8.82(2.75)[4-14]	8.27(2.52)[5-13]	7.82(2.93)[4-12]	7.4(2.8)[4-12]	8.36(3.47)[4-14]	7.47(2.72)[4-13]
Spiritual	9.93(1.98)[5-13]	9.93(1.98)[5-13]	9(2.28)[6-13]	10(1.81)[5-13]	9.45(2.7)[4-13]	9.2(2.4)[4-13]	9.27(2.37)[6-13]	9.33(2.35)[4-13]

Note: Values are given as; m=(mean), sd=(standard deviation), range=[Range]. The clinical and counselling trainee groups are represented as, Psychodynamic (n=11), Other (n=15). Mental disorders are represented as; major depressive disorder (mdd), generalized anxiety disorder (gad), schizophrenia (s), and antisocial personality disorder (apd).

The aim of Table 5. was to continue with the trend (see Tables 2, 3, and 4). and determine whether the level of endorsement for the different models of mental disorders differed based on the individual theoretical orientation the clinician and counselling students received. Table 4 demonstrates each mental disorder was compared to the eight models of illness about the two training categories the psychodynamic and other group.

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=16$, $SD=2.19$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.73$, $SD=3.2$) by the psychodynamic group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=14.18$, $SD=2.52$). The test for within-subject effect $p<.70$, and $\eta^2 = .02$ which indicates a large effect size. $F(7,68) = 6.6$, and the mean square error $MSE= 3.4$, therefore the pairwise comparison $p<.06$ indicated a significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.73$, $SD=2.28$). The test for within-subject effect $p<.70$, and $\eta^2 = .02$ which indicates a small effect size $F(7,68) = 6.6$, and the mean square error $MSE= 3.4$, therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.89$, and $\eta^2 = .01$ which indicated a small effect size. $F(1,24) = .25$, the mean square error $MSE= 13.38$, and the overall pairwise is $p<.70$ for the major depressive disorder psychodynamic group.

Based on the major depressive disorder, the highest level of endorsement received by any of the models was for the social realist model of illness ($M=15.73$, $SD=2.33$) by the 'other' group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.07$, $SD=2.4$) by the 'other' group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the cognitive model was mostly endorsed with ($M=13.33$, $SD=2.53$). The test for within-subject effect $p<.06$, and $\eta^2 = .07$ which indicates a large effect size. $F(7,17) = 1.9$, and the mean square error $MSE= 5.5$, therefore the pairwise comparison $p<.06$ indicated a significance for the cognitive model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.64$ $SD=2.29$). The test for within-subject effect $p<.06$, and $\eta^2 = .07$ which indicates a large effect size. $F(7,17) = 1.9$, and the mean square error $MSE= 5.5$ therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.89$, and $\eta^2 = .01$ which indicated a large effect size. $F(1,24) = .25$, the mean square error $MSE= 13.37$, and the overall pairwise is $p<.70$ therefore, there is no significant difference for the major depressive disorder 'other' group.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=15.13$, $SD=2.39$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.82$, $SD=2.75$) by the psychodynamic group. The psychodynamic model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model was mostly endorsed with ($M=14.55$, $SD=3.14$). The test for within-subject effect $p<.027$, and $\eta^2 = .05$ which indicates a medium effect size. $F(7,13) = .76$, and the mean square error $MSE= 4.8$, therefore the pairwise comparison $p<.06$ indicated a significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.67$, $SD=3.02$). The test for within-subject effect $p<.55$, and $\eta^2 = .04$ which indicates a large effect size. $F(7,13) = .76$, and the mean square error $MSE= 4.8$, therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.93$, therefore, there is no significant difference, and $\eta^2 = .04$ which indicated a medium effect size. $F(1) = 1.0$, the mean square error $MSE= 12.73$, and the overall pairwise is $p<.78$ therefore, there is no significant difference for the generalized anxiety disorder psychodynamic group.

Based on the generalized anxiety disorder, the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=13.47$, $SD=2.36$) by the ‘other’ group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.27$, $SD=2.52$) by the ‘other’ group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=13.47$, $SD=2.36$). The test for within-subject effect $p<.55$, and $\eta^2 = .04$ which indicates a medium effect size. $F(7,13) = .76$, and the mean square error $MSE= 4.8$, therefore the pairwise comparison $p<.06$ indicated a significance for the psychodynamic model for major depressive disorder. The least endorsed model of illness was the biological model ($M=11.67$, $SD=3.03$). The test for within-subject effect $p<.55$, and $\eta^2 = .04$ which indicates a medium effect size. $F(7,13) = .76$, and the mean square error $MSE= 4.8$, therefore the pairwise comparison $p<.06$ was and indicated no significance for the major depressive disorder. The test of between-subjects effect $p<.93$ therefore, there is no significant difference, and $\eta^2 = .05$ which indicated a large effect size. $F(1) = 1.0$, the mean square error $MSE= 12.73$, and the overall pairwise is $p<.78$ therefore, there is no significant difference for the generalized anxiety disorder ‘other’ group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15.18$, $SD=2.36$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.82$, $SD=2.93$) by the psychodynamic group. The biological model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models

of illnesses the biological model was mostly endorsed with ($M=15.18$, $SD=2.36$). The test for within-subject effect $p<.02$, and $\eta^2 = .02$ which indicates a medium effect size. $F(7,13) = .03$, and the mean square error $MSE= 2.28$, therefore the pairwise comparison $p<.02$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=9.64$, $SD=2.62$). The test for within-subject effect $p<.06$, and $\eta^2 = .02$ which indicates a medium effect size. $F(7,13) = .03$, and the mean square error $MSE= 2.28$ therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.75$ therefore, there is no significant difference, and $\eta^2 = .03$ which indicated a large effect size. $F(1,19) = .58$, the mean square error $MSE= 7.29$, and the overall pairwise is $p<.62$ therefore, there is no significant difference for the schizophrenia disorder psychodynamic group.

Based on the schizophrenia disorder, the highest level of endorsement received by any of the models was for the biological model of illness ($M=15$, $SD=2.1$) by the ‘other’ group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.4$, $SD=2.8$) by the ‘other’ group. The model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the biological model was mostly endorsed with ($M=15$, $SD=2.1$). The test for within-subject effect $p<.02$, and $\eta^2 = .02$ which indicates a small effect size. $F(7,13) = .03$, and the mean square error $MSE= 2.28$, therefore the pairwise comparison $p<.02$ indicated a significance for the biological model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10.27$, $SD=1.75$). The test for within-subject effect $p<.06$, and $\eta^2 = .02$ which indicates a small effect size. $F(7,13) = .03$, and the mean square error $MSE= 2.28$ therefore the pairwise comparison $p<.06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p<.75$ therefore, there is no significant difference, and $\eta^2 = .03$ which indicated a large effect size. $F(1,19) = .58$, the mean square error $MSE= 7.29$, and the overall pairwise is $p<.62$ for the schizophrenia disorder ‘other’ group.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=14.64$, $SD=3.5$) by the psychodynamic group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=8.36$, $SD=3.47$) by the psychodynamic group. The psychodynamic model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the behavioural model was mostly endorsed with ($M=13.45$, $SD=2.58$). The test for within-subject effect $p<.04$, and $\eta^2 = .41$ which indicates a medium effect size. $F(7,13) = .81$, and the mean square error $MSE= 5.70$, therefore the pairwise comparison $p<.06$ indicated a significance for the behavioural model for major depressive disorder. The least endorsed model of illness was the cognitive model ($M=10.55$, $SD=3.14$). The test for within-subject effect $p<.02$, and $\eta^2 = .41$ which indicates a large effect size. $F(7,13) = .81$, and the mean square error $MSE= 5.70$

therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .59$, and $\eta^2 = .009$ which indicated a small effect size. $F(1,25) = .22$, the mean square error $MSE = 13.37$, and the overall pairwise is $p < .36$ therefore, there was a significant difference for the antisocial personality disorder psychodynamic group.

Based on the antisocial personality disorder, the highest level of endorsement received by any of the models was for the psychodynamic model of illness ($M=14$, $SD=1.51$) by the 'other' group, and the least level of endorsement received by any of the models was the Nihilist model of illness ($M=7.47$, $SD=2.72$) by the 'other' group. The social realist model was mostly agreed with based on the average mean being high, whilst the nihilist model was least agreed with. As a result, based on the first four models of illnesses the psychodynamic model was mostly endorsed with ($M=14$, $SD=1.51$). The test for within-subject effect $p < .04$, and $\eta^2 = .41$ which indicates a large effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$, therefore the pairwise comparison $p < .06$ indicated a significance for the psychodynamic model for major depressive disorder^p. The least endorsed model of illness was the cognitive model ($M=10.8$, $SD=2.57$). The test for within-subject effect $p < .02$, and $\eta^2 = .41$ which indicates a medium effect size. $F(7,13) = .81$, and the mean square error $MSE = 5.70$ therefore the pairwise comparison $p < .06$ was and indicated no significance for the for major depressive disorder. The test of between-subjects effect $p < .59$, and $\eta^2 = .009$ which indicated a small effect size. $F(1,25) = .22$, the mean square error $MSE = 13.37$, and the overall pairwise is $p < .36$ therefore, there was a significant difference for the antisocial personality disorder 'other' group.

CHAPTER 6

DISCUSSION

6.1 Research Question 1

Item 18 in the survey sought to ascertain if the participants belonged to the clinical or counselling group. Most participants were from the clinical group as a result there was an unequal number of entries, and it was difficult to conclude whether the trainee psychologist's backgrounds affected how they scored the items. Additionally, the both the trainee psychologist's adherence to mental disorder illnesses affected their perceptions of mental disorders. According to the first response for question 1.1, trainee psychologists did not differ in their support of the 8 models of illnesses as represented by the 4 mental disorders. This was based on the scope of practice they received for theoretical orientations within their clinical and counselling programs. A one-way ANOVA repeated measure was used to analyse the data, and the findings were interpreted using variables from the model of illnesses and mental disorder variables to get the mean difference between the two variables. The overall pairwise $<.001$ results indicated a significance in the level of endorsement for models of illness and mental disorders. As a result, the trainee's psychologists' level of endorsement had a normal distribution. As they endorsed the models of illnesses by mental problems in the same manner the analysed results; therefore, rejected the hypothesis for Question 1.1 due to the little correspondence of endorsing the mental disorders the same.

The hypothesis for question 2.2 presumed that trainee psychologists would differ based on their training program. This was based on the idea that they received the same scope of the model of illnesses and mental disorders but practiced it differently. The concept of mental disorders would also differ based on the difference in how interventions are implemented. As it was discussed in the literature (see Chapter 2, 2.5), clinical and counselling psychologists differed in terms of the service they provide based on the difference of their roles. The training category variable examined whether trainee psychologists were registered for the clinical or counselling program. It further investigated, utilizing variables from the model of illnesses and those related to mental disorders. Due to there being two independent variables and one dependent variable, a two-way repeated measure ANOVA was used to evaluate the data. The outcomes showed that the overall pairwise for major depressive disorder was ($p<.64$) and generalized anxiety disorder was ($p<.71$); this indicated no significance due to the difference oh how trainee psychologists endorsed each mental disorder. Whilst the overall pairwise for schizophrenia was ($p<.29$), and for antisocial personality disorder it was ($p<.05$) indicating that there was a difference with the means. Moreover, the results indicated that major depressive disorder was not significant; therefore, the hypothesis was not supported, based on there being enough similarity with the mean results. Schizophrenia and antisocial personality disorder were significant, so the hypothesis was supported in these cases. This was based on the four mental disorders being endorsed, instead of having three mental disorders highly endorsed and one least endorsed. In accordance with their various psychotherapy programs, the trainee psychologist endorsed the models of illness caused by mental disorder.

The purpose of the third research question was to determine whether the effects of endorsing different models of illnesses would differ based on their theoretical orientation. It emphasised that theoretical orientations would be endorsed differently. The question was analysed using a two-way repeated measure ANOVA. Considering the small sample size used to compare the variables between the two training programs, there was a classification of models of illnesses as "other" and "psychodynamic". Together with the mental disorders, the clinical and counselling groups were also analysed. Individual therapy was another variable that was used to examine question 1.3. The outcomes showed that the overall pairwise the major depressive disorder was ($p < .52$), generalized anxiety disorder was ($p < .45$), and ($p < .38$) for schizophrenia this indicated a significant endorsement. In contrast, the antisocial personality disorder was ($p < .75$) which indicated no significance. The hypothesis for Question 1.3 was not supported, as a majority of the mental disorders were significantly endorsed based on training theoretical orientation. The notion that the participants endorsed the illness models in a comparable manner based on their individual training suggested that the hypothesis was incorrect in its predictions.

The final research question 1.4 examined whether individual therapy may impact the trainee's perception of theoretical orientations. This resulted in having a deeper understanding of what the theoretical orientations were and inversely having lived experience of the frameworks being used oneself. So, this further probed into a more understanding mindset regarding the approach of implementing theoretical orientations into practice. The computed psychodynamic variable, the "other" variable, and the models of illnesses by mental disorder variables were the variables used for this question. No significant differences emerged.

6.2 Similarity of results

Based on the results obtained, there was a variation in how each research question yielded different inferential statistical outcomes when compared to earlier research. The values of the results were similar to those of the Harland et al. (2009) study, as not all respondents supported the same model. The participants were from various universities and may have been exposed to different methods of learning using various teaching styles. As a result, they presented different significances in terms of how they endorsed mental disorders, this also supports the idea for the research to be further studied. Young and Saville-Young (2019) state that because half of the participants in their research study worked in private practices, practitioners were more likely to practice in ways that were comparable to one another regardless of their level of training. This could also have a great influence on the different levels of endorsements. Moreover, it might have contributed to how they perceived various mental disorders based on their knowledge of the models of illnesses and their comprehension of theoretical approaches. The findings, according to Harland et al., (2009) indicated that no model of illness was endorsed, this meant, depending on how participants understood the models of illnesses by mental condition, multiple models of illnesses were supported. It is noteworthy to notice that while this research study concentrated on masters in first-year psychology, the Harland study concentrated on psychiatrists.

Each of the eight models of illness were endorsed based on the four mental disorders. (e.g., Figure 1), displayed a probability of each model being applied differently. According to Harland et al. (2009), the study's findings demonstrated that different endorsement models were used depending on the disorder. As a result, it can be said that the findings in (e.g., Figure 1) are comparable to those of the Harland research study. Similar results from different individuals ensure the study and data were not repeated, even if the same Maudsley Attitude Questionnaire was used with the same participants or healthcare professionals.

Similar findings from a study investigated '*Clinical psychologist trainees' perceptions of mental disorders are also found in the survey's demographic section*'. The purpose of the study was to investigate how psychology students perceived mental disorders. The study's conclusions indicated that physiological variables were not as essential in psychologist's conceptualizations of mental disorders as the immediate social conditions of the individual and the larger social context (Read et al., 2017). The research study; therefore, needed the comparison of results to determine whether the participants had received psychotherapy training in their institutions; therefore, collecting information on the individual's educational background, education history, and graphic section was crucial. Although it was assumed that the participants had prior knowledge of psychotherapy, it was nevertheless important to identify the number of students who had training in it because they were clinical students, and their viewpoints for endorsing mental disorders as a result of their treatment received were similar, and this is in line with the result that they endorsed models of illnesses the in more-or-less the same way. This further supported question 1.4 which aimed to understand whether the effects of *mental disorders effects differed based on the theoretical orientation of the trainee psychologist's psychotherapy*. Harland et al. (2009), emphasized clinicians use various models of illnesses and mental disorders.

A variable that was crucial to the research study, that inversely focused on the study's question was also investigated in the demographic section. The aim was to determine whether each participant obtained an individual theoretical orientation. It was useful in comparing the findings with those of a study conducted by Young and Young-Saville, (2019), whose findings showed that clinical and counselling psychologists were, for the most part, engaged in similar activities. Analysing the participants' programs enrolled gave insight into how the training groups endorsed the mental disorder model. Based on the research study's findings, the $p < .001$ indicated that there was a significant difference between the two groups. According to Young and Young-Saville (2019), most specializations share comparable theoretical orientations, with the exception that clinical psychologists are substantially more likely than counselling psychologists to favour a psychodynamic approach. (See Chapter 5, Table 1). This refutes the notion that clinical psychologists lean more towards psychodynamics than counselling psychologists and further illustrates that there were more counselling psychologists in the study than there were clinical psychologists. Taking into consideration that the variables were categorized into "psychodynamic" and "other" categories rather than the other models. The small sample size for this

research study, however, raises the possibility that this should be further investigated with a larger sample.

The Maudelys Attitude Questionnaire was useful for this research as it looked at trainee psychologists' assumptions about psychotherapy. Earlier research looked into psychiatrist attitudes, which also aimed at understanding the perceptions of how mental disorders were supported. According to Lewis et al. (2010), a composite instrument measuring belief in the medical model of mental disorders functioned well along with the items used to gauge one's level of belief in medical models. This demonstrated that the instruments used for this research study were accurate and suitable based on the components of the theoretical framework.

6.3 Results interpretation

Descriptive statistics were used to demonstrate the mean, standard deviation, and range for the trainee psychologist's level of endorsement (see Chapter 5, Table 2, to 5). The mean, frequency, and percentage of the demographic results were also demonstrated using descriptive statistics (See Chapter 5, Table 1). In addition, after analysing the results for schizophrenia, it was highly endorsed (e.g., Figure 1). There is a variation in the amount of endorsement when the results were analysed. The trainee psychologists experienced diverse effects based on their theoretical expertise in their separate domains, which are clinical psychology and counselling psychology.

Based on the results for the model of social realists (e.g., Figure 1) it was the model of illness that was generally endorsed. With a mean of $M = 6.14$, the nihilist model of illness under schizophrenia disorder received the least amount of support. Also, the results were able to identify which of the two training groups—clinical and counselling—were highly and least endorsed for each mental disorder by comparing them. Social realist model was highly endorsed by the clinical group, and the nihilist model was the least endorsed by the counselling group. The social realist was highly endorsed for the training program and the nihilist was the least endorsed mental disorder.

For individual psychotherapy, the between-subjects effect ($p < .89$) this indicated that there was no significance for models of illnesses endorsed based on having received individual psychotherapy. Therefore, there was no support for the prediction that a psychology student would support models of illnesses differently depending on whether they had received individual psychotherapy.

6.4 Participants flow

The survey comprised a small sample as a result, there was an uneven distribution of participants from both groups, mainly from the clinical group (see Chapter 5, Table 1). According to Evans and Mathur (2005), participation flow focuses on documenting the flow of the participant's information captured throughout a research study. The participation flow was supported by the sampling procedure this research study contained, looked at clinical trainees and counselling trainees. Evans and Mathur (2005) further state that, where there is interrelatedness and association positive functioning leads to positive

endpoints or results. As a result, the sample was from the same population of psychologists in four South African universities; hence, results were meaningful, as there was an understanding of the model of illnesses and mental disorders.

What is important about participation flow is that it helps researchers understand the perceptions of the trainees based on the research study at hand. In this case, having a variety of participants from the different institutions in South Africa helped gain a perspective on how the different trainees endorse the different mental illnesses in this order based on models of illnesses. The participation flow also helped in understanding the research study. When the results were analysed, it became clear that they were models of illnesses that were least endorsed and those that were highly endorsed. With a larger sample, there would have been a more meaningful interpretation of the level of endorsement for the mental disorders. There was no contest about the basis flow of the instrument; however, it ought to be created in a way that was understandable, and the participants were able to complete the survey.

The aim of using a survey was to have items that were empirical and could align with the trainee psychologist scope of practice. According to Magyaródi et al. (2015), interview methods have been used in several studies to comprehensively understand the nature of flow experiences. It was therefore important for the survey to flow in conjunction with the population being researched; this simply implied that understanding the trainee's educational background and further asking questions in the survey that aimed at finding out their perceptions of models of illnesses was helpful.

CHAPTER 7

LIMITATIONS AND FUTURE RECOMMENDATIONS

The limitation of this research study was primarily focused on the sample size. The sample size was the main area of focus this research study's limitation. Given the lack of participants that completed the survey, the notion that the findings were a representation of a small sample did impact this research study. It is important to acknowledge the efforts of the survey respondents, whose information was used to understand the findings. Taking into consideration that a non-probability sample was chosen, however, also contributes to skewed parameter estimations because the sample's data did not apply to other healthcare providers who offer mental health services. The sample selection was flawed due to the deletion of missing data, making it difficult to determine its appropriate representativeness. Nonetheless, it made it necessary to see the need to do this research study but with a larger sample or a new group of clinical and counselling psychologists in different categories. This could apply to licensed professionals as well as clinicians who are currently doing their internship year, as they each have a unique perspective on the models of disorders by mental condition. It was, therefore, important to get a sample size that would give a general result for the population; however, that did not take place. The participants were divided into two categories, 'psychodynamic' and 'other', due to an unforeseeable circumstance, which was a shortage of survey responses. As a result, the goal of researching both training groups was not achieved in detail, but merging their preferred theoretical orientations allowed for feasible data analysis.

Also, the instrument was greatly affected by the use of the Maudsley Attitude Questionnaire. Due to their enrolment in the coursework only, the participants may have not been fully able to comprehend the items well enough, as it is important to take into consideration that licensed psychiatrists who have been practicing for a longer period and had a greater knowledge of the items administered in the questionnaire would have had higher levels of endorsements. Even though the psychometrics of the questionnaire may have not been fully understood, it was able to give a general idea of trainee psychologist's insights into mental illness work. In essence, the sample size of the results was significantly impacted by the missing data collected. The results were less generalizable for the population since, as indicated above, the instrument contained $n = 48$ entries, but only $n = 28$ people completed the survey, which was just 25% of the initial estimated sample size.

The analysis was not as feasible due to the sample size; however, this research study can be further investigated by expanding the target sample as it was unexpectedly low. The data collected can also be used to further build on this study and collect data by using a different sample. This can include psychologists who have obtained their licenses. In doing so, an exploration of how both clinical and counselling psychologists endorse models of mental disorders can give a different perspective to this study. Since the intended sample was surprisingly small, this research topic can still be investigated further, and the information gathered can be used to expand on this research topic and run an analysis with a different sample. An alternative would have been to get a sample from licensed psychologists.

This can help provide a different viewpoint on the subject by examining how both clinical and counselling psychologists endorse theories of mental disorders.

7.1 Conflict of interest

There was no conflict of interest.

CHAPTER 8

CONCLUSION

Analysing trainee psychologists' perceptions was used to investigate how they perceived models of illnesses and mental disorders. Secondary research was used as the primary study for this research report, including the instrument used. This research study focused on assessing the perceptions of clinical and counselling psychologists in their first year of master's training, and previous studies focused on understanding how Psychiatrists endorse models of illness and their results were similar to those found in this study. The methodology was presented using a quantitative research design, as it could use a larger sample size and collect numerical data, and a positivist approach was used to further understand the wider range of the data in comparison to existing data from the primary study. The population was from South Africa, and the sample was from four universities, out of six that were initially approached. Moreover, the analysis of variance, was a one-way repeated measure and a two-way repeated measure and multivariant mixed repeated measure. It was used to analyse the data, as the means were compared amongst the two trainee-psychology groups. A survey was used to gather data from the clinical and counselling participants. Moreover, the items used in the primary research were omitted to cater for the population. The population was from South Africa, and the sample was from four universities, out of six that were initially approached. The findings were not reliable enough to draw a conclusion about the trainee psychologist sampled, due to the small sample size and data entry. Although the data was sufficient to complete this research study and the validity of the results were justifiable, due to using the correct analysis method using the analysis of variance fulfilled the purpose of investigating the mean difference between the two training groups. The analysis of the data illustrated that both trainee groups significantly endorsed the models of illnesses caused by mental disorders. In essence, the findings from this research cannot be applied to the trainee population; however, this research topic can further be conducted using a larger South African sample of trainee psychologists to get more comparable data, primarily because the findings from a larger sample can; support academic research, and further strengthen the necessity for trainee psychologists to support mental disorders similarly because they work in the same field and focus of study.

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APPENDIX A

Information Sheet

Research title: Psychologists in training's assumption about mind and brain in Psychopathology and clinical work.

My name is Patricia L Mavundla, a Masters student at the University of Witwatersrand in the department of Psychology. I am conducting a research study based on Psychologists in training's assumption about mind and brain in psychopathology. The university which you are registered in for your training in clinical and counselling psychology has provided permission to approach you regarding my study. I would like to invite you to participate in this research study.

Participation in this study will involve completing an online survey. The survey will contain demographic information such as your age, gender, language, and religious beliefs. It will also include your education background information such as theoretical orientation/s of your training program. The survey will be a maximum of 30 minutes. Participation is entirely voluntary, and you will in no way be advantaged or disadvantaged for choosing to participate or not. There are no direct benefits, costs or risks to participants anticipated from taking part in the study.

At no point will your responses to the survey be linked to your name or any other identifying information about you. The survey does not request any details such as your name, and the personal information that is requested (e.g., age category) will be insufficient to uniquely identify you. There is no way to link any responses to the email invitation you originally received, and the online survey system (REDCap) will not record the IP address of the computer or device used to complete the survey. As such, your participation and your responses will be entirely anonymous.

Data from your completed survey will not be seen by anyone other than myself (and any research supervisor working on the project), and your responses will be saved in a neutral and secure database which is password protected. Thus, your confidentiality is guaranteed. Your responses will only be looked at in relation to all other responses, which means that feedback and publications resulting from this project will be in the form of group trends and not individual responses.

Below, you will be asked to indicate your consent to participate in this study before proceeding to the survey. You may withdraw from the survey at any point (by closing the survey) before pressing the "Done" button at the end of the survey – all incomplete survey responses will be excluded from the study. It will not be possible to withdraw from the study after the survey has been completed, as there will be no way to uniquely associate such a request with a submission in the database. Thank you for considering this invitation. Your participation in this study would be greatly appreciated. This research will contribute to our continued exploration and understanding of the beliefs, assumptions and models of mind, brain, and mental disorder of your training.

Please feel free to contact me should you have any queries relating to this research.

Kind regards.

Contact details:

Researcher: Patricia Mavundla Masters in Psychology-Wits

Email: 1432771@students.wits.ac.za

Supervisor: Dr Michael Pitman- Researcher & Senior Lecturer, Psychology-Wits

Email: michael.pitman@wits.ac.za

Tel: 011 717 4505.

APPENDIX B

Welcome, Participant Information, and Consent

Welcome, Invitation, and Participant Information

Good day

My name is Patricia Mavundla, a Masters student at the University of Witwatersrand, in the Department of Psychology. I am conducting a research study based on Psychologists-in-training's Assumptions about Mind and Brain in Psychopathology. The university in which you are registered for your training in clinical and counselling psychology has provided me permission to approach you regarding my study. I would like to invite you to participate in this research study.

Participation in this study will involve completing an online survey. The survey will contain demographic information such as your age, gender, language, and religious beliefs. It will also include your educational background information such as the theoretical orientation/s of your training programme. The survey will be a maximum of 30 minutes. Participation is entirely voluntary, and you will in no way be advantaged or disadvantaged for choosing to participate or not. There are no direct benefits, costs, or risks to participants anticipated from taking part in the study.

At no point will your responses to the survey be linked to your name or any other identifying information about you. The survey does not request any details such as your name, and the personal information that is requested (eg. age category) will be insufficient to uniquely identify you. There is no way to link any responses to the invitation/ link you responded to, and the online survey system (REDCap) will not record the IP address of the computer/device used to complete the survey. As such, your participation and your responses will be entirely anonymous.

Data from your completed survey will not be seen by anyone other than myself (and any research supervisor working on the project), and your responses will be saved in a neutral and secure database that is password protected. Thus, your confidentiality is guaranteed. Your responses will only be looked at in relation to all other responses, which means that feedback and publications resulting from this project will be in the form of group trends and not individual responses.

Below, you will be asked to indicate your consent to participate in this study before proceeding to the survey. You may withdraw from the survey at any point (by closing the survey) before pressing the "Done" button at the end of the survey - all incomplete survey responses will be excluded from the study. It will not be possible to withdraw from the study after the survey has been completed, as there will be no way to uniquely associate such a request with a submission in the database.

Thank you for considering this invitation. Your participation in this study would be greatly appreciated. This research will contribute to our exploration and understanding of the beliefs, assumptions, and models of mind, brain, and mental disorders of your training.

Please feel free to contact me should you have any queries relating to this research.

Kind regards,

Patricia Mavundla

Contact details

Researcher: Patricia Mavundla

(Masters in Social and Psychological Research candidate, University of the Witwatersrand, Johannesburg)

Email: 1432771@students.wits.ac.za

Supervisor: Dr Michael Pitman

(Researcher & Senior Lecturer, Psychology, University of the Witwatersrand, Johannesburg)

Email: Michael.pitman@wits.ac.za

1) Are you 18 years or older?

- ☐ Yes
☐ No

2) Please confirm if you have read the Participant Information Sheet (above), and if you consent to participating in this survey. Please respond "Yes" if you consent to proceed with the survey, and "No" if you wish to decline the invitation to participate at this point in time.

- ☐ Yes
☐ No

Psychologists-in-training's Assumptions about Mind and Brain in Psychopathology and Clinical Work

Please complete Sections A, B, and C of the following questionnaire. The information you give will be treated in strict confidence and used only for the purpose of the current research.

SECTION A

Demographic Questionnaire

What is your gender?

Self-identification: _____

What is your age?

- ☐ 18 to 20
- ☐ 21 to 23
- ☐ 24 to 26
- ☐ 27 to 29
- ☐ 30 to 32
- ☐ 33 to 35
- ☐ 36 to 38
- ☐ 39 to 41
- ☐ 42 to 44
- ☐ 45 or older

What is your home language? (Please choose only one)

Home Language - Other _____

Please indicate your level of proficiency in the South African official languages:				
	None	Beginner	Intermediate	Fluent
Afrikaans	☐	☐	☐	☐
English	☐	☐	☐	☐
isiXhosa	☐	☐	☐	☐
isiZulu	☐	☐	☐	☐
Northern Sotho	☐	☐	☐	☐
Southern Sotho	☐	☐	☐	☐
Siswati	☐	☐	☐	☐
TshiVenda	☐	☐	☐	☐
Xitsonga	☐	☐	☐	☐

Your religious beliefs and those of your parents/guardians:

	Self	Parent/Guardian 1	Parent/Guardian 2
Agnostic	☐	☐	☐
Atheist	☐	☐	☐
Buddhist	☐	☐	☐
Christianity	☐	☐	☐
Hindu	☐	☐	☐
Islam	☐	☐	☐
Jewish	☐	☐	☐
Other	☐	☐	☐

SECTION B**Education and Professional Training**

Total years of education?

Which university are you completing your professional masters training at?

- ☐ Nelson Mandela University
☐ North-West University
☐ University of Johannesburg
☐ University of KwaZulu-Natal
☐ University of Pretoria
☐ University of the Witwatersrand

Which category of psychological training are you currently enrolled in?

- ☐ Clinical
☐ Counselling

Which year of your professional training are you currently enrolled in?

- ☐ Year 1
☐ Year 2 (if applicable)
☐ Internship

Which of the following best characterises the primary theoretical orientation/s of the university at which you are registered for your training?

Other: _____

Are you, or have you been in individual psychotherapy yourself?

- ☐ Yes
☐ No

How long have you been in individual psychotherapy?

- ☐ Less than a year
☐ One year
☐ Two years
☐ Three years
☐ More than three years

If more than three years, how many years? _____

Which of the following best characterises the primary theoretical orientation/s of the individual psychotherapy you have received?

Other: _____

SECTION C

Please consider the following statements regarding a variety of approaches to mental illnesses and evaluate their relevance to four disorders: Major Depression Disorder, Generalized Anxiety Disorder, Schizophrenia, and Antisocial Personality Disorder as currently constructed. The statements are not meant to be mutually exclusive and there are no correct answers.

All the questions are to be answered on a 5-point scale from strongly agree to strongly disagree (1 - 5), where: 1= strongly disagree, 2= disagree, 3=neutral, 4=agree, 5=strongly agree.

Please select the appropriate number.

The disorder results from brain dysfunction.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder arises as a consequence of social circumstances or conditions.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder is best approached through the study of abnormal behaviour.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The management of the disorder is best left to the resources of the individual.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The research into the disorder should focus on the identification of causative social factors.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The ideal classification of the disorder would be a pathophysiological one.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder should be treated by challenging and restructuring maladaptive thoughts and beliefs.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Neglecting the spiritual or moral dimension of life leads to the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The appropriate study of the disorder involves discovery of biological markers and the effects of biological interventions.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Treatment of the disorder should be based on whatever folk treatments and models are accepted as appropriate by the patient and their local community.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Studying the associations between antecedents and consequents in the patients' behaviour is the best basis for modification of the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Mental health professionals have no 'expertise' of the disorder over and above anyone else.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder can only be understood in the context of local meanings and these meanings cannot be extrapolated to universal classifications.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Social factors such as prejudice, poor housing, and unemployment are the main causes of the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Maladaptive thoughts and beliefs are normally distributed in the population and it is the extreme ends of this distribution that accounts for the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

There is no universal classification of disorder, only culturally relative classifications.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorders	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Treatment of the disorder should be directed at underlying biological abnormalities.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder is due to unconscious factors (as defined psychodynamically).

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The behavioural problems in the disorder are best modified by associating new responses to a given stimulus.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The study of the disorder should concentrate on understanding cognitive distortions and reasoning errors.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Adherence to religious or spiritual practice is the most effective way of treating the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The structure of the disordered psyche and its unconscious mechanisms is best understood by a study of individual cases.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Attempts to scientifically explain the disorder have resulted in no significant knowledge.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder is nothing other than the sum of maladaptive thoughts, beliefs, and behaviours.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Consulting a spiritual authority can give a better understanding of the disorder than psychiatry.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder results from the failure to successfully complete developmental psychic stages.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

All classifications and 'treatments' of the disorder are myths.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Treatment of the disorders requires resolution of disturbed early object relationships.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

Government policies to reduce prejudice, poor housing, and unemployment are the way to eradicate the disorder.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder is better understood through religious or spiritual insights.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder results from maladapted associative learning.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

The disorder is a culturally determined construction that reflects the interests and ideology of socially dominant groups.

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Major Depressive Disorder	☐	☐	☐	☐	☐
Generalized Anxiety Disorder	☐	☐	☐	☐	☐
Schizophrenia	☐	☐	☐	☐	☐
Antisocial Personality Disorder	☐	☐	☐	☐	☐

APPENDIX C

Permission letter to conduct research



SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT
PSYCHOLOGY

[Insert addressee details]

[Contact person]

[University name]

[University address]

[Date]

Dear Sir/Madam

Re: Permission to conduct research at [insert university name].

My name is Patricia Lungile Mavundla, a Masters student in the Department of Psychology. I have enrolled as a Social and Psychological Research by Coursework and Research Report student, at the University of the Witwatersrand, South Africa. I am conducting a research study focusing on psychologists-in-training's assumptions about mind, brain, and models of mental disorder in psychopathology.

The primary objectives of this research are to (i) investigate conceptions and models of mental disorder amongst South African clinical and counselling psychologists-in-training, (ii) investigate possible associations between these conceptions and the backgrounds of these psychologists-in-training (for example, the theoretical orientation of their training and their own psychotherapy), and (iii) make appropriate comparisons to results obtained from professional and student samples (e.g. in the UK – Harland et al., 2009; and in New Zealand – Read, 2012). The research will use a quantitative research design which will consist of an online survey.

I am interested in inviting your master's in clinical and counselling Psychology students who are currently completing the coursework part of their degree to participate in my study. All requisite ethical principles and protocols will be followed in the process of conducting the study. An application for ethical clearance is currently being processed by the University of the

Witwatersrand, and I undertake to send you confirmation of this ethics clearance once my study has been assigned a clearance certificate. I have included a copy of the participant information sheet which will be sent to the students, should I be granted permission to carry out this research study at your university. Participation will be entirely voluntary and anonymous, and there will be no direct benefits, costs or risks to participants anticipated from taking part in the study. Completing the survey should take no longer than 30 minutes. No personal details or information sufficient to identify participants will be requested or recorded. Data will be treated confidentially, and only analysed and reported on at the level of group trends. Volunteers will be explicitly asked to indicate their consent to participate in the study (via a consent question), and they will have the right to withdraw at any time up to the point of completing and submitting the online survey.

The research will involve human participants and will be of minimal risk. Ethical clearance has been obtained from the Human Research Ethics Committee HREC Non-medical. The clearance certificate number is.

Your approval to conduct this study will be appreciated. If you agree, I would be most grateful if you could notify me of your decision by sending me a signed letter of permission, acknowledging your consent for me to conduct this research at your institution to this email: (1432771@students.wits.ac.za), and if you could further assist by putting me in contact with the MA course coordinators and respective students.

Please feel free to contact me or my supervisor should you have any queries relating to this research and I hope to hear from you soon.

Kind regards,

Researcher: Patricia Lungile Mavundla (Ma in Social and Psychological Research, Department of Psychology.)

Email: 1432771@students.wits.ac.za

Supervisor: Dr Michael Pitman (Researcher and Senior Lecturer, Psychology department-Wits)

Tel: 011 717 4505

Email: Michael.Pitman@wits.ac.za

APPENDIX D



SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT ETHICS COMMITTEE **CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)**

CLEARANCE CERTIFICATE:

PROTOCOL NUMBER: MASPR/21/03

PROJECT TITLE:

Psychologists in training's Assumptions about Mind and Brain in Psychopathology and Clinical Work.

INVESTIGATOR

Mavundla Lungile (1432771)

SCHOOL/DEPARTMENT OF INVESTIGATOR

SHCD/Psychology

DATE CONSIDERED

10 June 2021

DECISION OF THE COMMITTEE

Approved unconditionally

RISK LEVEL

Minimal Risk

EXPIRY DATE

31 December 2023

ISSUE DATE OF CERTIFICATE

21 June 2021

CHAIRPERSON



(Dr Sahba Besharati)

cc: Dr Michael Pitman (Supervisor)

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.



Signature

Date

22 / July / 2021

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES