

UNIVERSITY OF EDUCATION, WINNEBA

**THE EFFECT OF SOLUTION-FOCUSED BRIEF THERAPY AND
COGNITIVE BEHAVIOUR THERAPY ON PSYCHOLOGICAL
FUNCTIONING OF TRAINEE-NURSES IN LEDZOKUKU GREATER-
ACCRA**

ALBRIGHT ASIWOME BANIBENSU

DOCTOR OF PHILOSOPHY

UNIVERSITY OF EDUCATION, WINNEBA

**THE EFFECT OF SOLUTION-FOCUSED BRIEF THERAPY AND
COGNITIVE BEHAVIOUR THERAPY ON PSYCHOLOGICAL
FUNCTIONING OF TRAINEE-NURSES IN LEDZOKUKU GREATER-
ACCRA**

**ALBRIGHT ASIWOME BANIBENSU
(201800921)**

**A thesis in the Department of Counselling Psychology,
Faculty of Applied Behavioural Sciences in Education, submitted to the School of
Graduate Studies in partial fulfilment
of the requirements for the award of the degree of
Doctor of Philosophy
(Guidance and Counselling)
in the University of Education, Winneba**

AUGUST, 2025

DECLARATION

STUDENT'S DECLARATION

I, ALBRIGHT ASIWOME BANIBENSU, declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE:

DATE:

SUPERVISORS' DECLARATION

We hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

Daniel K. Buku (PhD) (Supervisor)

Signature:.....

Date:.....

Prof. Hannah E. Acquaye (PhD) (Co-Supervisor)

Signature:.....

Date:.....

DEDICATION

I dedicate this work to my therapy clients, my family, humanity and future researchers who would build on this research work.

ACKNOWLEDGEMENT

May I precede my acknowledgement by saying that the list of those that deserve to be in this space can fill a whole new book so I will alternatively mention a few individually and do the rest collectively.

Foremost, I am grateful to El-Elyon for providing the motivation and strength for the work. He also provided all the funding for the entire programme and for that I am very thankful.

One needs a lot of peace and presence of mind to get a PhD thesis done. I received an overdose of this from my sweetheart. My wife ensured that I was at peace with myself and with everyone. For this, I love you more.

I acknowledge my supervisors for being patient with me and for encouraging me. Dr. Daniel K. Buku calls me his son. That shows how close the working relationship was. Dr. Hannah Emma Acquaye (who gained her Associate Professorship a year after returning to Ghana) was God sent. She came at a time when I was no longer making any sense out of the work because it was not being understood the way I was envisioning it. It took her just about 15 minutes of my presentation for her to grasp the idea and to propose how it should go, which was in synchrony with how I envisioned it. For this, I am eternally grateful.

I acknowledge all my mentors for having confidence in me and my protégés for giving me a reason not to give up on this colourful dream but an arduous path. Finally, I acknowledge all those who supported me in ways that were very important but immeasurable. I cherish prayers from my spiritual family and all people of faith. You have helped to consolidate the biopsychosocial and spiritual nature of mental health. The work has just begun!

TABLE OF CONTENTS

DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
ABSTRACT	xii
CHAPTER ONE: INTRODUCTION	1
1.0 Overview	1
1.1 Background to the study	1
1.2. Statement of the Problem	6
1.3 Theoretical Framework	8
1.4 Conceptual Framework for the Study	14
1.6 Objectives of the study	15
1.7 Research hypotheses	16
1.8 Significance of the Study	17
1.9 Delimitation of the Study	18
1.10 Operational Definition of Terms	19
1.11 Organization of the Study	20
CHAPTER TWO: LITERATURE REVIEW	21
2.0 Overview of the chapter	21
2.1 Empirical reviews	21
2.1.1 Psychological functioning of trainee-nurses worldwide, in Africa, and in Ghana	21

2.1.2 Rising mental health problems among college students worldwide, in Africa, and in Ghana	23
2.1.3. Symptoms Distress (SD) and intimacy	26
2.1.4 Interpersonal relations differences based on intimacy status	29
2.1.5 Social role differences based on intimacy status.	33
2.1.6 Symptom distress or psychological distress differences based on gender.	36
2.1.7 Differences in interpersonal relations challenges based on gender.	39
2.1.8 Social role challenges based on gender.	43
2.1.9 Psychological distress among young emerging adults in health professions	45
2.2 Summary: Literature gap warranting this research	47
CHAPTER THREE: RESEARCH METHODOLOGY	49
3.0 Introduction	49
3.1 Research Paradigm	49
3.1.1 Ontological assumptions of the researcher	49
3.1.2 Epistemological assumptions of the researcher	50
3.2 Research Approach	50
3.3 Research Design	51
3.4 Population of the Study	52
3.5 Study setting	52
3.6 Sample and Sampling Technique	53
3.7 Instrumentation	55
3.8 Pilot Test	57
3.9 Pre-administration training	59
3.10 Data Collection Procedure	61
3.11 Data Analysis	62

3.12 Ethical Considerations	64
CHAPTER FOUR: LIMITATIONS, RESULTS, AND FINDINGS	67
4.0 Introduction to the Chapter	67
4.1 Limitations of the Study	67
4.2 Results	68
4.2.2 Age of Participants	69
4.2.3 Stage in Educational Progression of Participants	69
4.2.4 Intimacy Description of Participants	70
4.3. Analysis of reliability indices	71
4.4 Analysis of Hypotheses	73
4.4.1 Hypothesis 1 – There is no statistically significant mean score Symptoms Distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	74
4.4.2 Hypothesis 2 – There is no statistically significant mean score Interpersonal Relations differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	76
4.4.3 Hypothesis 3 – There is no statistically significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	78
4.4.4 Hypothesis 4 – There is no statistically significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	79
4.4.5 Hypothesis 5: There is no statistically significant mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences based on intimacy status.	81
4.4.6 Hypothesis 6: There is no statistically significant mean score Symptoms	86

Distress differences, Interpersonal Relations differences and Social Role differences based on gender.	86
4.5 Discussion of results	88
4.6 Connection of results to theoretical framework	103
4.7 Summary of the chapter	105
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	106
5.0 Introduction	106
5.1 Summary of the study	106
5.2 Summary of findings	108
5.3 Implications for counselling	111
5.4 Conclusion	113
5.5 Recommendations	113
5.5.1 Recommendations for Counsellors in Nursing Training Colleges	114
5.5.2 Recommendations for Nursing training institutions	116
5.5.3 Recommendations for Practitioners in general	117
5.5.4 Recommendations for Policy Makers	118
5.5.5 Suggestions for future Research	119
REFERENCES	121
APPENDICES	140

LIST OF TABLES

Table	Page
1 Pretest-posttest randomized control group design	52
2 Experimental fidelity – Therapy content	61
3 Data Analysis/Analytic Test and Reporting Indices table	63
4 Description of Intimacy Status	72
5 Reliability indices for pretest and posttest of variables	72
6 Dependent T-test Results for Symptoms Distress	75
7 Post-Test of Symptoms Distress Based on Therapy	76
8 Dependent T-test Results for Interpersonal Relations	78
9 Post-Test of Interpersonal Relations Based on therapy	78
10 Dependent T-test Results for Social Role	80
11 Post-Test of Social Role Based on Therapy	75
12 Dependent T-test Results of Incidence of Risk	82
13 Post-test of Risk based on therapy	82
14 ANOVA Table of Symptoms Distress and Intimacy	84
15 ANOVA Table of Interpersonal Relations and Intimacy	85
16 ANOVA Table of Social Role and Intimacy	87
17 Gender differences in Symptoms Distress	89
18 Gender differences in Interpersonal Relations	90
19. Gender differences in Social Role	90

LIST OF FIGURES

Figure		Page
1a	Conceptual Framework: Group, stage and treatment flow.	9
1b	Conceptual Framework: Treatment and psychological functioning variables based on gender and intimacy status	10
2	G*Power A Priori Analysis of Pretest-Posttest Protocol	52
3	Random number generator output of participants assigned	52
4	Gender categorization of participants	66
5	Stage in Educational Progression	66
6	Simple Bar Mean of Intimacy and Symptoms Distress	70
7	Simple Bar Mean of Intimacy and Interpersonal Relations	72
8	Simple Bar Mean of Intimacy and Social Role	73
9	Simple Bar Mean of Therapy Types and Symptoms Distress	79
10	Simple Bar Mean of Therapy Types and Interpersonal Relations	81
11	Simple Bar Mean of Therapy Types and Social Role	83
12	Simple Bar Mean of Therapy Types and Risk	85

ABSTRACT

This study assessed psychological functioning in four domains among trainee-nurses, examining the effectiveness of the Solution-Focused Brief Therapy (SFBT) and Cognitive Behaviour Therapy (CBT) in enhancing students' psychological well-being. The research utilized a randomized experimental design with imperfect control group due to real-world constraints. With this pretest-posttest randomized control group design, sixty participants were purposively chosen based on their OQ45.2 scores and were randomly assigned to experimental and control groups. After eight sessions of therapy, the study found that nursing-trainees experienced Symptoms Distress, Interpersonal Relationship, Risk and Social Role challenges similarly no matter their intimacy status. Whether they are single and searching for a partner, single but not searching for a partner, in a relationship but not yet married or are married, did not make a difference in their psychological functioning. Similarly, gender made no difference in psychological functioning. Seventy-five percent (75%) of the trainee-nurses were females. The average age of the trainee-nurses was 19 years which means that most of them were emerging adults. More than half of the population (58%) were in relationship. The therapies were statistically and clinically significant in reducing poor psychological functioning, meaning that therapy improved overall well-being in the four domains. Solution-focused Brief Therapy more significantly reduced Interpersonal Relationship challenges, whilst Cognitive Behaviour Therapy had the greatest effect in reducing incidents of Symptom Distress, Risk and Social Role challenges. Regular psychological assessment and therapy is recommended as part of the nursing training curriculum with SFBT and CBT deemed suitable for improving trainee-nurses' psychological functioning.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter sets the stage for the whole research work. The chapter provides a foundation to allow readers a peak into the soul of the research study. To ensure that this is done adequately, a background to the study is provided where the work is grounded on extant literature. Thereafter, the study establishes a problem, through various research gaps, that warrant a study such as this. To firmly ground this study, theoretical and conceptual frameworks are provided to contextualize the problem under study. Objectives of the study are provided, hypotheses to be tested are stated here as well. Then stakeholders who will benefit from the results of this study are addressed in the significance of the study. Finally, the boundaries within which this study is conducted are addressed in the delimitation of the study.

1.1 Background to the study

Nurses play vital roles in the health delivery chain, and they need to be at their peak psychologically even while in training so as to learn effectively and also practice under supervision (Kang et al., 2020; Li, Yao, Zhang, & Chen, 2020; Tsai, Chen, Sun, Liu, & Lai, 2014). Regular assessment of their functioning and provision of prompt professional help regarding their social roles, interpersonal relations and other deep seated psychological issues will go a long way to help them. This is so because their psychological functioning is likely to have spillover effects on the patients they work with as well as their colleagues, friends, and family (Li et al., 2020). Moreover, due to the nature of their routines, brief therapies may be the best way to go in order to balance time and efficiency.

Solution-focused Brief Therapy (SFBT) has gained momentum as a powerful therapeutic approach since its inception in the 1980s (de Shazer et al., 2021). It is evidence-based and focuses on solutions instead of problems (Franklin, Trepper, McCollum, & Gingerich, 2011). Its unique techniques and brief nature make it suitable for clients with various psychosocial needs. In the wake of the emerging definition of health (Huber et al., 2011) and increasing psychosocial challenges especially among students (Storrie, Ahern, & Tuckett, 2010), this seems to be the therapy of the moment.

Cognitive Behavioural Therapy (CBT) views psychological problems as partly based on faulty or unhelpful ways of thinking and learned patterns of unhelpful behaviour. CBT combines cognitive and behavioural techniques to help individuals identify and challenge distorted cognitions and beliefs, thereby modifying their thought patterns and behaviours to improve emotional regulation and develop personal coping strategies (Geschwind, Bosgraaf, Bannink, & Peeters, 2020). The therapeutic process involves helping clients to have a better understanding of the thoughts and feelings that influence behaviours, making it effective for resolving a range of issues including depression, anxiety disorders, and other mental health conditions (Geschwind et al., 2020).

Unlike CBT, which involves a structured approach to changing thought patterns, SFBT relies on exploring and amplifying existing solutions and exceptions to the problem. This approach is typically shorter in duration and is goal-oriented, making it distinct from the more problem-focused and technique-intensive approach of CBT (Franklin et al., 2024). Solution-Focused Brief Therapy (SFBT), also emphasizes solutions rather than problems and focuses on the present and future circumstances and goals of the client rather than past experiences. SFBT is based on

the principle that clients have the resources and strengths to solve their problems and the role of the therapist is to facilitate and guide clients towards realizing and utilizing these strengths (Franklin et al., 2024).

More and more people are now living with chronic diseases which impact their psychological, emotional, and social well-being (Card, 2017). Health is now being looked at as the ability to adapt and self-manage in the face of social, physical, and emotional challenges (Huber et al., 2011). To adapt and self-manage, the client, first needs to know his/her health status. This is very easy to do these days, especially in terms of physical medical check-ups. However, when it comes to the psychosocial health status, many are unaware of where they stand. As a result, it is possible for people to live with health problems in the psychosocial area of their lives for many years without knowing. This calls for the need to assess therapy needs in order to intervene appropriately.

Looking at psychological functioning across occupations, one will find ambulance drivers having the worst psychological functioning scores (Gärtner et al., 2012). Research indicates that allied health professionals and nurses are top on the list when it comes to psychological dysfunction among health workers (Gärtner et al., 2012). This is corroborated by findings on burnout and stress among health workers in Ghana. It was found out that among the health worker groups, nurses had the highest percentage score values for all burnout variables in general and stress in particular (Odonkor & Adams, 2021; Odonkor & Frimpong, 2020).

The World Health Organization (WHO, 2023) confirmed by multiple researchers estimate that approximately 13 percent of Ghanaians suffer from a mental disorder. It further indicates that of the 13 percent, 3 percent suffer from a severe mental disorder and the other 10 percent suffer from a moderate to mild mental

disorder (Amu et al., 2021; Asante & Andoh-Arthur 2015; Thapa et al., 2015; WHO, 2007). In effect, using the current population of 30,800,000 Ghanaians, 4,004,000 persons in Ghana are estimated to suffer from a mental illness; 924,000 are estimated to suffer from a severe mental disorder and 3,080,000 are estimated to suffer from moderate to mild mental disorder. That is a substantial burden on the nation's health care system.

Globally, statistics of students with mental health conditions have been rising (Amu et al., 2021; Asante & Andoh-Arthur, 2015). Over the past 10 years, mental health conditions among students in countries such as the United Kingdom have also been rising significantly (Lister et al., 2023). Some studies indicate as much as fivefold increase in the number of students with mental health conditions (Hill et al., 2020; Priestly et al., 2022; WHO, 2021). Recent studies in Europe and North America highlight the prevalence of depression and anxiety among nursing students, with rates significantly higher than those observed in the general student population (Cheung et al., 2016). These findings suggest that the unique stressors of nursing education, including exposure to patient suffering, long clinical hours, and academic pressures, contribute to a distinctive risk profile. From the findings of Watson et al (2008) , the implications are profound: impaired psychological functioning among nursing students can lead to reduced academic performance, diminished clinical competence, and increased attrition rates from nursing programmes.

In Ghana, over the past years, psychological functioning of citizens has been under the spotlight. Many civil society organizations, including Alliance for Mental Health and Development, continue to put pressure on the Ghanaian parliament to focus on preventive mental health (Ansong, 2022). This shows that our society is taking mental health care more seriously. Studies generally show that students mental

health is getting worse (Hill et al., 2020; Priestly et al., 2022). Over the past 10 years, there has been a fivefold increase in the number of students who disclose a mental health condition to their institution. Can we say the same about Ghana? Do students, especially nurses, know their psychological functioning status? Do they easily seek help and are there adequate structures in place to address them?

The psychological functioning of nursing students has direct implications for health policy and workforce development in Ghana. The country faces persistent challenges in meeting the recommended nurse-to-patient ratios, and attrition from nursing programmes exacerbates this shortage (Opoku et al., 2022). Ensuring the psychological well-being of nursing trainees is therefore essential for sustaining the healthcare workforce.

In Ghana, institutional support for student mental health remains limited (Badu, O'Brien, & Mitchell, 2018). This gap underscores the need for evidence-based interventions such as SFBT and CBT, which can be implemented within educational institutions to enhance student resilience and reduce psychological distress. It is therefore important to explore trainee-nurses' psychological functioning to inform policy makers on the structures to put in place to safeguard the psychological functioning status of nursing-trainees and by and large, that of the larger society.

This study is timely and significant for several reasons. First, it addresses a critical gap in the literature by focusing on the psychological functioning of nursing-trainees in Ghana, a population that has received limited scholarly attention in this area under study especially from the perspective of assessing multiple variables of psychological functioning in one study. Second, it evaluates the effectiveness of two evidence-based therapies (SFBT and CBT) in improving psychological functioning among this group. Third, it provides empirical data that can inform counsellors, policy

makers, educators, and healthcare administrators in designing interventions to safeguard the mental health of nursing students. The findings have the potential to contribute not only to academic discourse but also to practical strategies for enhancing the resilience and competence of Ghana's future nurses.

1.2. Statement of the Problem

In Ghana, there is a growing recognition of the need for mental health support among healthcare professionals, including trainee-nurses (Chaabane et al., 2021; Opoku Agyemang, Ninnoni, & Enyan, 2022a). National surveys, such as the Mental Health System in Ghana full report (Roberts et al., 2014), reveal that policy emphasis has largely centred on the training of practitioners and the provision of mental healthcare services, while the mental health needs of the service providers themselves, nurses in particular, remain underexplored. This oversight is a matter of great concern, given the yawning treatment gap in Ghana: 98% of individuals with mental health conditions do not receive care, meaning only 2% access treatment (WHO, 2023).

Globally, the mental well-being of nurses and trainee-nurses has been in the spotlight with research findings suggesting an increase in risk factors like workplace bullying, demanding job schedules and violence (Hashish, 2024). A scoping review, capturing 171 researches mostly from the high-income countries has shown that nurses worldwide encountered significant mental health challenges. These included depression, cognitive impairment, anxiety, trauma/post-traumatic stress disorder, burnout, sleep disorder, and other negative mental health issues (Yang et al., 2024). Research has also found that found that nurses were 18% more likely to die by suicide compared with the general population. Also, it was disturbing to note that only 79

(15%) were receiving counselling or therapy for the identified conditions (Davidson, Accardi, Sanchez, Zisook, & Hoffman, 2020).

Meanwhile, the optimum psychological functioning of trainee-nurses is very crucial for their personal mental well-being and professional performance (Almeida, Figueiredo, & Lucas, 2024). However, the demanding nature of nursing education and clinical practice can lead to significant stress and mental health challenges (Chaabane et al., 2021). The spillover effect of this on their relationships, families and the patients they care for during clinicals cannot be overemphasized.

Various therapeutic approaches, such as Solution-Focused Brief Therapy (SFBT) and Cognitive Behaviour Therapy (CBT), have been explored to address these issues (Akbaş & Yiğitoğlu, 2022; Butler, Chapman, Forman, & Beck, 2006; Ehlers & Clark, 2000; Gingerich & Peterson, 2013; Rothwell, 2005; Spilsbury, 2012). Whereas SFBT focuses on exploring solutions rather than digging out problems, emphasizing clients' strengths and future goals (de Shazer et al., 2021); CBT, on the other hand, according to Judith S. Beck and Aaron T. Beck (2021) aims to change negative thought patterns and behaviours through cognitive restructuring and other behavioural interventions.

In Africa, research has shown promising results for both SFBT and CBT in improving psychological well-being. For instance, a study in South Africa demonstrated that SFBT helped to improve the feeling of hope and subjective well-being among trauma survivors (Joubert & Guse, 2022). Similarly, CBT has been recognized as an effective first-line treatment for PTSD and other mental health conditions (Fordham et al., 2021).

In Ghana, however, there is limited research specifically examining clusters of mental health conditions among trainee-nurses and the effectiveness of treatment modalities such as SFBT and CBT on the psychological functioning of the trainee-nurses. Also, there is limited research in Ghana where the researchers used the OQ45.2 as a measure of psychological functioning with a randomized experimental design as a research methodology in which real therapy is provided with a control group. This study purposes to fill this research gap by investigating the effectiveness of these therapeutic approaches in improving the psychological well-being of trainee-nurses in the Greater-Accra region of Ghana. To achieve this goal, this current research assesses a cluster of mental health factors among nursing-trainees. This provides a better insight into the psychological functioning of the nursing-trainees. These clusters are risk of suicide and substance abuse, symptom distress (SD), interpersonal relationships (IR) and social role (SR). These clusters are areas of psychological functioning that the researcher often finds his clients struggling with and thus this fit into his field of study, which is counselling psychology, and this lends relevance to the study.

1.3 Theoretical Framework

The research was undergirded by two major theories: Cognitive Behaviour Theory and Solution-Focused Theory. It utilised the OQ45.2 tool as a measure of the variables of psychological functioning.

Cognitive Behaviour Theory (CBT)

Cognitive Behaviour Theory integrates principles from behaviourism and cognitive psychology. Its development is attributed to B. F. Skinner, John B. Watson, and Aaron Beck, each contributing foundational principles that shaped the practice of Cognitive Behaviour Therapy (CBT).

Basic Assumptions

1. Dysfunctional thinking patterns are the root cause of emotional and behavioural disturbances as opined by Judith S. Beck (1991) and Aaron T. Beck (2011).
2. Behaviour is learned and maintained through reinforcement, punishment, and modelling (Bandura, 1977; Skinner, 1965).
3. Emotional responses can be conditioned through associations with stimuli as espoused by Watson and Rayner (1920).
4. Change occurs when maladaptive cognitions and behaviours are identified and replaced with adaptive alternatives.

Key Concepts

1. Cognitive distortions (e.g., catastrophising, overgeneralisation) stemming from over-reliance on defence mechanisms.
2. Operant conditioning (reinforcement and punishment).
3. Classical conditioning (associative learning).
4. Reciprocal relationship between thoughts, emotions, and behaviours.

Application and Techniques

1. Cognitive restructuring: Identifying and disputing irrational thoughts, replacing them with adaptive ones.
2. Behavioural activation: Encouraging engagement in rewarding activities to reduce avoidance behaviours.
3. Exposure therapy: Gradual exposure to feared stimuli to reduce anxiety responses.

4. Skill training: Enhancing problem-solving, social skills, and stress management.
5. CBT journaling/thought diaries: Structured tracking of thoughts, emotions, and behaviours (Team, 2023).

Roles of Counsellor and Client

Counsellor: Functions as a guide, educator, and facilitator, helping clients identify maladaptive cognitions and reinforcing adaptive behaviours.

Client: Actively participates in self-monitoring, restructuring thoughts, and practising new behaviours.

Relevance of the Theory

CBT is robust, evidence-based, and adaptable across diverse populations and conditions. Meta-analyses confirm its efficacy in treating anxiety, depression, and PTSD (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). It has enduring benefits, such as reducing relapse in depression (Kuyken et al., 2015), and has proven effective in both face-to-face and internet-based formats. Lin and colleagues (Franklin et al., 2024) used the predictive ability of heart rate variability (HRV), based on sensor data from consumer-grade wearable devices to detect Group Cognitive Behaviour Therapy's (GCBT) effectiveness in early intervention.

Why the researcher chose CBT

CBT was selected because it provides a structured, measurable framework for addressing both cognitive and behavioural dimensions of psychological functioning. Its evidence base and adaptability make it particularly suitable for trainee-nurses experiencing distress, interpersonal challenges, and social role difficulties.

Solution-Focused Theory (SFT) and Solution-Focused Brief Therapy (SFBT)

Solution-Focused Theory (SFT), developed by Steve de Shazer and Insoo Kim Berg in the 1980s (De Shazer, 1985; de Shazer et al., 2021), underpins Solution-Focused Brief Therapy (SFBT). Rooted in social constructionism, SFT emphasises that reality is constructed through language and interactions, and that clients already possess the resources to resolve their difficulties.

Basic Assumptions

1. Problems and solutions are socially constructed through discourse (De Shazer, Dolan, & Korman, 2007).
2. Clients have inherent strengths and resources to solve their problems.
3. Small, incremental changes can lead to significant improvements.
4. Therapy should be future-oriented, focusing on solutions rather than problems.

Key Concepts

1. Client is seen as an expert in their own life.
2. The focus is on solutions rather than problems.
3. Both the Counsellor and Client work on future orientation and goal setting.
4. Small changes leading to larger transformations.

Application and Techniques

1. Miracle question: Clients imagine how life would differ if a miracle solved their problems, helping them articulate goals and envision change (De Shazer et al., 2007). For example, a therapist might ask, "Suppose tonight, while you sleep, a miracle happens, and your problem is solved. How would you know? What would be different?"

2. Scaling questions: Clients rate progress or severity of issues on a scale from 0 to 10, providing measurable indicators of change (De Jong & Berg, 2013).
3. Exception questions: Identifying times when problems were less severe to highlight strengths and resources.
4. Compliments: Reinforcing clients' strengths and successes to build confidence and motivation.

Roles of Counsellor and Client

Counsellor: Facilitator of dialogue, guiding clients to recognise strengths and construct solutions through language.

Client: Active agent, articulating goals, identifying resources, and envisioning a preferred future.

Relevance of the Theory

SFBT is brief, adaptable, and effective across diverse settings. Meta-analyses confirm its efficacy in reducing psychological distress and improving well-being (Gingerich & Peterson, 2013). Kim and Franlin (2009) confirm that it has proven to be effective in education. Others have also attested to its effectiveness in organisational contexts (Ratner, George, & Iveson, 2012), demonstrating its versatility.

Why the Researcher Chose SFT/SFBT

SFT was chosen because although it is basically a behaviour therapy, it contrasts with CBT by focusing on future-oriented solutions rather than past problems. Its emphasis on client strengths and rapid resolution aligns with the study's aim of improving trainee nurses' psychological functioning in a practical manner.

How these theories underpin the study

The study sought to measure the effectiveness of SFBT and CBT in improving psychological functioning among trainee-nurses. The contrasting philosophies of the two therapies provide a strong theoretical foundation for this analysis:

CBT posits that maladaptive cognitions and behaviours must be identified and modified to improve mental well-being.

SFT/SFBT posits that focusing on solutions and client strengths fosters resilience and enhances well-being.

For the researcher who believes in eclecticism, these theories represent complementary approaches in practice: CBT addresses the roots of dysfunction, while SFBT empowers clients to construct positive futures. Their integration provides a comprehensive framework for examining interventions that enhance the psychological functioning of trainee-nurses, making them the most appropriate theoretical underpinnings for this study.

How the Outcome Questionnaire (OQ45.2) fits in as a measure of the variables of psychological functioning

The Outcome Questionnaire (OQ45.2) is a self-report questionnaire developed mainly for treatment impact assessment and monitoring of status change because it can measure the cross-sectional condition very accurately by being sensitive to small changes (Matavovszky, Nguyen Luu, & Karner, 2024). The present study aimed to psychometrically evaluate Symptom Distress, Interpersonal Relationship, Social Role and Risk challenges as variables of psychological functioning in nursing-trainees.

As the Solution-Focused Theory and Cognitive Behaviour Theory explain the Dependent variables, the OQ45.2 scale explains the dimensions of measure of psychological functioning.

Relevance of each theory used in meeting the objectives of the study

The objectives of the study are to assess the impact of SFBT and CBT on psychological functioning taking intimacy status and gender of the participants into consideration. The theories explain the therapies, establishing their philosophical assumptions that guide their unique treatment models. Whilst CBT focuses on behaviour modification based on distorted thinking patterns from the past, SFBT focuses on current experiences and future possibilities thus presenting a unique theoretical view of mitigating low psychological functioning.

1.4 Conceptual Framework for the Study

The researcher conceptualised the study as a flow from pre-test to treatment to post-test administration (Figure 1a). In this model, the solution-focused brief therapy, Cognitive behaviour therapy and the placebo treatment are independent variables, while the four psychological functioning factors of symptom distress, interpersonal relations, social role and risk are regarded as dependent variables (Figure 1b). This best describes the phenomenon under study (Varpio, Paradis, Uijtdehaage, & Young, 2020).

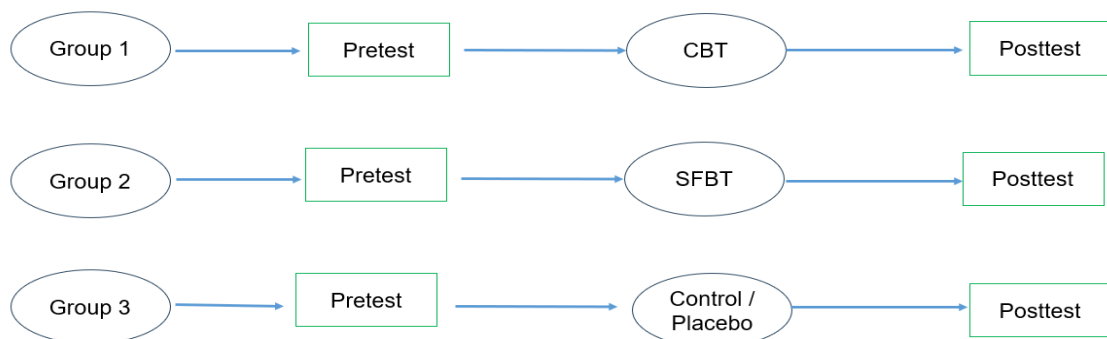


Figure 1a: Conceptual framework of the study: Group, stage and treatment flow.

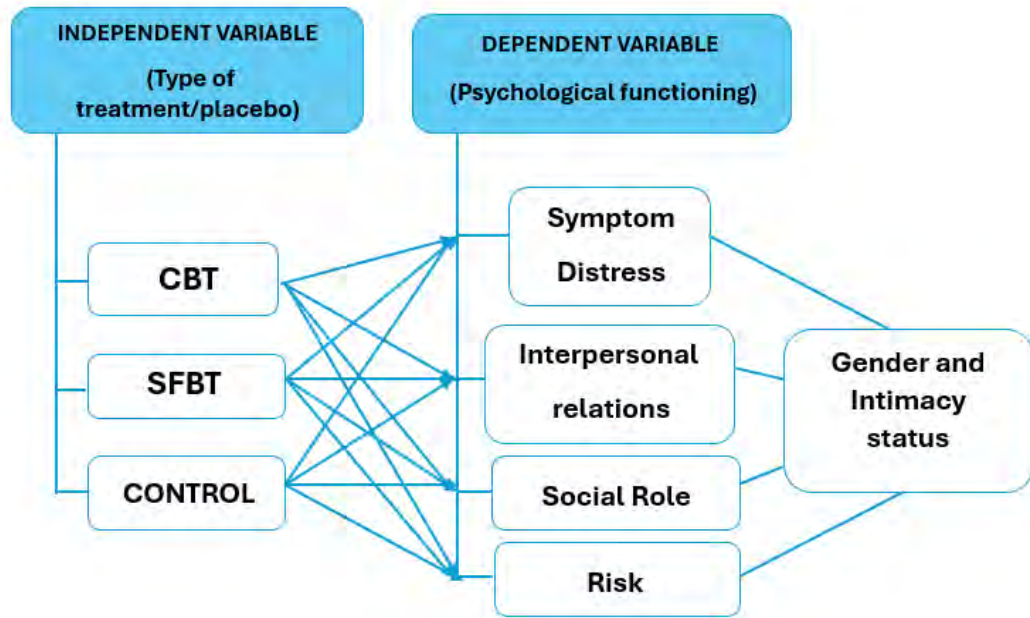


Figure 1b: Conceptual framework of the study: Treatment and psychological functioning variables based on gender and intimacy status.

1.5 Purpose of the study

The purpose of the study is to assess the effect of therapy on psychological functioning or mental health outcomes of trainee nurses in a Nursing and Midwifery Training school in Accra, Ghana. Specifically, the purpose is to find out if CBT, SFBT, and placebo treatment affect Symptoms Distress, Interpersonal Relations, Social Role and Risk behaviours of trainee-nurses while taking their gender and intimacy status into consideration. This is to provide empirical evidence for the therapies' effectiveness and encourage further research on them or with other therapeutic approaches in the health service training environment.

1.6 Objectives of the study

The objectives of the research were to:

1. Assess the impact of CBT on the psychological functioning (symptom distress, interpersonal relations, social role, and risk) of trainee-nurses in Ledzokuku Greater-Accra.

2. Assess the impact of SFBT on the psychological functioning (symptom distress, interpersonal relations, social role, and risk) of trainee-nurses in Ledzokuku Greater-Accra.
3. Examine the differences in psychological functioning (symptom distress, interpersonal relations, social role, and risk) in terms of intimacy status of trainee-nurses in Ledzokuku Greater-Accra.
4. Examine the gender differences in psychological functioning (symptom distress, interpersonal relations, social role, and risk) of trainee-nurses in Ledzokuku Greater-Accra.

1.7 Research hypotheses

The following hypotheses were formulated to guide the study:

- H₀1: There is no statistically significant mean score Symptoms Distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.
- H₀2: There is no statistically significant mean score Interpersonal Relations differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.
- H₀3: There is no statistically significant mean score Social Role differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.
- H₀4: There is no statistically significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.
- H₀5: There is no statistically significant mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences based on intimacy status.

H₀₆: There is no statistically significant mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences based on gender.

1.8 Significance of the Study

This research work has practical, theoretical, and methodological significance.

- **Practical significance:** This research generates a practical portfolio for assessment, intervention planning and outcome analysis. It will also inform policy on therapy for trainees in health and educational sectors, placement of professionals and assessment protocols.
- **Theoretical significance:** The Solution focused brief therapy model, and the Cognitive behavioural model have been taught at the postgraduate levels in most universities in Ghana, but there is limited research in the area of their utility in a study of this nature. In this research that utilizes the positivist's theory, we see this theory expanded to unearth evidence of low psychological functioning and the provision of counselling/ treatment.
- **Methodological significance:** The research employs Pretest-Posttest randomized control group design. The researcher does not only identify areas of low psychological functioning but also provides therapy. This provides empirical data on both psychological functioning of the clients as well as treatment outcomes which leaves a methodological trail. The findings will assist counsellors, psychotherapists, and clinicians as well as policy makers to gain a better insight into the therapy needs of the students in these institutions. It will also help in knowing the efficacy or otherwise of the Solution-

focused brief therapy and Cognitive behaviour therapy in reducing psychosocial distress among trainee-nurses.

1.9 Delimitation of the Study

The study focused on specific treatment models; that is the SFBT and CBT only. It also targeted specific psychological functioning variables (Symptoms distress, interpersonal relations, social role and risk behaviours) and it was carried out in a public nursing institution within the Greater-Accra Region of Ghana that runs the General Nursing Course. The institution is not sited within a hospital with Psychology/Wellness department. Also, it is not a boarding institution. These choices of the researcher delimit the study and serve the following purposes:

- a. To ensure that all the subjects are reading similar programmes.
- b. Day students have at least one more stressor to deal with in terms of commuting. Some will also have more social responsibilities since they may be with family. This mimic the natural future settings where they will commute from home to work. They may also not have certain facilities readily available to them. These can add more stressors to them. Additionally, they are at more liberty to visit facilities and professionals outside of campus that can provide them with their mental health support.
- c. The researcher does not want to link the seeking of mental health care or reduction in symptoms of low psychological functioning to proximity or availability of a hospital with a Psychology/Wellness department.

1.10 Operational Definition of Terms

- Psychological functioning: In the context of this study, it is the trainee-nurse's ability to either live with or struggle with challenges that call for mental health care attention, specifically in the domains of symptom distress, social role, interpersonal relationship and risk as they are rated on the OQ45.2 scale.
- Symptom distress: This refers to stress, anxiety disorders, depressive, affective disorders and other psychological disorders that will affect the mood and behaviour of the trainee-nurse.
- Social role: Challenges that affect the work-life balance, school performance, household management, parenting and any other roles that the trainee-nurse must play that may interfere with their optimum psychosocial functioning.
- Interpersonal relations: Issues that affect the trainee-nurse's relationship with others, such as communication, intimacy, conflict, and social isolation.
- Risk: This refers to the trainee-nurse's suicidal ideation, anger, substance use and violence.
- Intimacy: In this study, intimacy was conceptualized as the psychological capacity and willingness to engage in emotionally close, committed, and supportive relationships — a key developmental task during young adulthood, as framed by Erikson's (1993) psychosocial theory. This reflected in a trainee-nurse's relationship status, whether searching, not searching or partnered (in a relationship or married).
- Trainee-Nurse: A person studying at least a general course in nursing in the accredited public nursing training college where this research has been conducted.

1.11 Organization of the Study

This study is organized into five chapters. Chapter one presents the background to the study and then discusses key research issues such as statement of the problem, purpose of the study, research objectives, research questions, conceptual as well as theoretical framework, significance of the study, delimitation as well as the organization of the study. Chapter two reviews literature related to the study. Chapter three focuses on the methodology. It discusses the philosophical underpinnings, research approaches, research design, population, sample and sampling procedures, instrumentation, procedure for data collection and data analysis. Chapter four deals with the analyses of the result of the study as well as discussion of findings. Chapter five presents a summary of the research findings, conclusions, and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview of the chapter

The chapter explores relevant literature connected with the efficacy of therapy – specifically interventions within Cognitive Behavioural Therapy and Solution-Focused Brief Therapy – on mental health outcomes of nursing students. The chapter is broadly divided into theoretical review and empirical review.

2.1 Empirical reviews

2.1.1 Psychological functioning of trainee-nurses worldwide, in Africa, and in Ghana

Psychological functioning among trainee-nurses is their ability to either live with or struggle with challenges that call for mental health care attention. It reflects in their capacity to adapt to academic, clinical, and social demands without significant impairment in mental health, performance, or safety.

Global perspectives

Globally, studies during and after the COVID-19 period consistently report elevated distress, anxiety, and stress among nursing students, driven by clinical exposure, academic load, disrupted placements, and fear of infection (Al Maqbali, Madkhali, Gleason, & Dickens, 2023; Curcio et al., 2022). These stressors are associated with burnout, compassion fatigue, sleep problems, and reduced resilience. These factors greatly compromise learning and clinical quality of care. Although general resilience, spiritual support, self-efficacy, laughter therapy, active coping, and social support act as protective factors (Quesada-Puga et al., 2024), interventions that enhance coping, structured debriefing, and early mental health integration into

curricula show some promise for stabilizing functioning and preventing escalation to psychiatric morbidity (Liu, Lee, & Wu, 2024).

African regional perspectives

Sub-Saharan African nursing education faces constraints in hands-on mental health training, stigma, and limited resources (Docrat, Besada, Cleary, Daviaud, & Lund, 2019), intensifying students' emotional burden and readiness gaps for psychiatric settings. These can result in low psychological functioning. Recommendations emphasize enriched theoretical content, extended clinical hours, continuous exposure to mental health care, and structured debriefing sessions to better prepare graduates for integrated mental health care within primary care systems (Heunis, Kigozi-Male, Maeko, & Van Jaarsveldt, 2025).

South African data show nursing students' psychological functioning is strengthened by self-efficacy, active coping, and spirituality, while physiological strain (for example, sleep deprivation) predicts poorer well-being. Programmes that address coping and resource provision can enhance psychosocial functioning in future crises (Steenkamp & Chipps, 2024).

Limited mental health funding, workforce shortages, and stigma in many African contexts hinder early identification and access to care (Docrat et al., 2019). Stigma is a key barrier to access and utilization of mental health services, particularly in low- and middle-income countries. For example, a study found mental health stigma among Nigerian university health care students at a national teaching hospital (Bamgbose Pederson et al., 2020). These factors directly affect trainee-nurses' functioning and help-seeking, underscoring the need for school-based and campus-level supports that are feasible in low-resource settings. A study in Uganda shows gaps in training and

supply of material that are needed. These serve as barriers to the integration of mental health services into primary healthcare (Wakida et al., 2018) which have potential consequences for psychological functioning of the trainees and the populations they serve.

Ghana-specific evidence

Among psychiatric nurses in Ghana, significant proportions report mild to severe depression (19.6%), anxiety (27%), and stress (42%). Tailored support and training are necessary to maintain psychological functioning and service quality (Opoku Agyemang, Ninnoni, & Enyan, 2022b; Opong Asante & Andoh-Arthur, 2015a).

Ghanaian adolescents report low accessibility to formal counselling, preference for informal support (peer-led clubs), and discomfort with traditional counselling models. While focused on secondary schools, these findings inform campus mental health design for nursing trainees: integrating peer support, reducing stigma, and streamlining access can improve functioning and early intervention uptake (Ntow & Kagee, 2025).

2.1.2 Rising mental health problems among college students worldwide, in Africa, and in Ghana

While the phenomenon of rising mental health concerns is global, it manifests differently across regions, including Africa and Ghana, where socioeconomic, cultural, and institutional factors intersect uniquely with students' mental health experiences. Here is a look at the issues from the various perspectives, with empirical evidence from reviewing relevant peer reviewed works.

Global Perspective

Mental health problems among college students have become a global epidemic. According to the World Health Organization (WHO, 2021), about one in five college students worldwide experiences mental health disorders, primarily anxiety and depression. The transition to college life introduces a myriad of stressors, including academic demands, social isolation, and financial pressures, which contribute to deteriorating mental health. Research conducted across multiple countries shows that 35% of college students experience moderate to severe depression, with similar rates reported for anxiety disorders (Auerbach et al., 2016). This study highlights the widespread nature of the issue, transcending cultural and geographical boundaries.

A significant factor contributing to the rise in mental health issues is increasing academic pressure. According to Pedrelli and colleagues (2015), college students face higher expectations to perform academically, often leading to chronic stress and burnout. Additionally, social media has been implicated in the rising mental health problems among students, with studies indicating that excessive use of social platforms correlates with increased feelings of loneliness, depression, and anxiety (Twenge & Campbell, 2018).

Mental health among college students in Africa

In Africa, the situation is complicated by additional socioeconomic challenges. The continent faces a significant treatment gap for mental health, with many countries lacking the infrastructure and resources to support students facing mental health challenges (Qureshi & Eaton, 2020). The stigma surrounding mental health in many African cultures further exacerbates the problem as this is seen even in African immigrant communities (Mantovani, Pizzolati, & Edge, 2017). A study by Peltzer and

Pengpid (2015) involving university students from 25 countries in Africa found that approximately 30% of the students reported experiencing depression, with a higher prevalence in female students. The study highlights the need for more comprehensive mental health support systems within African universities to address this growing concern.

Moreover, the role of cultural and societal expectations cannot be overlooked in understanding the mental health dynamics among African college students. For instance, many students face pressure to succeed academically as a means of lifting their families out of poverty. This pressure often leads to heightened anxiety and stress levels, further exacerbating mental health issues (Walker, McLean, Mathebula, & Mukwambo, 2022).

Mental health among students in Ghana

In Ghana, mental health issues among college students mirror the trends observed globally and across Africa, but with unique local characteristics. The Ghanaian mental health system has historically been underfunded, and mental health services in educational institutions are limited (WHO, 2022). This lack of resources has left many students without access to the support they need during critical periods of their academic journey.

A study conducted by Oppong Asante and Andoh-Arthur (2015b) revealed that 39% of Ghanaian university students reported symptoms of depression, and 22% reported symptoms of anxiety. These figures highlight the significant mental health burden faced by students in Ghana, with factors such as academic stress, financial difficulties, and the pressure to conform to societal expectations being major contributors.

Additionally, traditional beliefs about mental health in Ghana often view mental illness as a spiritual or moral failing, further discouraging students from seeking professional help (Ae-Ngibise et al., 2010). The stigma associated with mental health issues in Ghana remains a significant barrier to treatment, and efforts to address this stigma are crucial in improving the mental health outcomes of students.

Conclusion

There is sufficient evidence that mental health issues are increasing and that they are aggravating the psychological functioning of students in tertiary educational settings. Unfortunately, there are several hinderances to resolving these issues and reversing the trend. Among these are early detection or diagnosis, stigma, lack of infrastructure and lack of funding support for mental health interventions.

2.1.3. Symptoms Distress (SD) and intimacy

Symptom distress refers to all the common mental disorders including stress, anxiety, depressive and affective disorders. It also refers to the degree of discomfort or suffering a person experiences due to symptoms of physical or mental illness (Cleeland et al., 1994). Intimacy status, including whether a person is married, single, or divorced, plays a significant role in shaping one's emotional and psychological well-being. While intimacy status is a significant predictor of symptom distress, individual factors such as coping mechanisms, social networks, and resilience also play a crucial role. The relationship between symptom distress and a person's intimacy status is a complex issue explored through various studies. The following is a search of the literature focusing on individuals who are single, searching for a partner, married or divorced and how that impinges on their level psychological distress.

Symptom Distress in married individuals

Marriage is often associated with better mental and physical health outcomes due to emotional and financial support provided by a partner (Pietromonaco & Beck, 2019). Married individuals typically report lower levels of symptom distress compared to their single or divorced counterparts (Robles & Kiecolt-Glaser, 2003). The emotional security and social support embedded within marriage tend to buffer the impact of stressors, which can reduce the intensity of distress symptoms. Moreover, married couples often share the burden of illness, leading to a more supportive environment conducive to better health outcomes (Holt-Lunstad, Smith, & Layton, 2010).

A longitudinal study by McCann and others (2013) found that married individuals with chronic illnesses experience significantly lower levels of psychological distress compared to their unmarried peers. This suggests that marriage provides not only emotional support but also practical assistance in managing symptoms, thereby alleviating distress. Marriage's protective effects on health may be attributed to the presence of a stable partner, who often acts as a caregiver, mitigating the intensity of both mental and physical symptoms (Carr & Springer, 2010).

Symptom distress in single individuals

In contrast, single individuals may experience higher levels of symptom distress due to the lack of consistent emotional support from a spouse or partner (Coombs, 1991). Single individuals, particularly those without close social networks, may lack the resources to effectively cope with illness, leading to heightened distress levels. Research has shown that unmarried individuals tend to report poorer health outcomes,

higher levels of psychological distress, and an increased risk of developing mental health disorders (Umberson, Williams, Thomas, Liu, & Thomeer, 2014).

A study by Stokes and Levin (1986) indicated that single people often rely on social networks outside of romantic relationships, which may not provide the same level of emotional or practical support as marriage. While strong friendships can buffer stress, the absence of a life partner can leave single individuals more vulnerable to the psychological effects of illness and symptom distress. Single individuals also face societal pressures and stigmatization, which can exacerbate feelings of loneliness and isolation, further increasing distress levels (DePaulo & Morris, 2005).

Symptom distress in divorced individuals

Divorce, on the other hand, has been associated with the highest levels of symptom distress among different intimacy statuses (Sbarra & Emery, 2005). Divorced individuals often face both emotional turmoil and social isolation, which can intensify distress symptoms. Research by Lorenz and others (2006) demonstrated that individuals who had recently undergone divorce reported significantly higher levels of anxiety, depression, and physical health problems compared to married individuals.

Divorce often leads to financial instability, disrupted social networks, and increased stress, all of which contribute to higher levels of symptom distress (Amato, 2000). The psychological toll of divorce can be long-lasting, with some individuals continuing to experience elevated distress levels even years after the divorce. Additionally, the loss of a partner, who might have provided emotional and caregiving support during times of illness, can exacerbate distress (Simon, 2002).

However, it is worth noting that the relationship between divorce and symptom distress may be moderated by individual coping mechanisms and social support. Some

divorced individuals may develop resilience and benefit from support systems outside of marriage, such as friends, family, or therapy (Sbarra & Emery, 2005). Those with stronger support networks and better coping strategies may experience less distress post-divorce.

In summary, the relationship between symptom distress and intimacy status is complex and multifaceted. While marriage tends to offer protective benefits against distress, being single or divorced is associated with higher levels of symptom distress. Understanding the underlying mechanisms of this relationship can guide healthcare professionals.

2.1.4 Interpersonal relations differences based on intimacy status

Intimacy status, that is whether an individual is married, single, in a committed relationship, or divorced, has a profound impact on interpersonal relationships. These relationships are often shaped by intimacy status, which influences emotional support, relationship satisfaction, and conflict resolution (Pepping & MacDonald, 2019).

Interpersonal relations in married individuals

Marriage is often associated with strong, supportive interpersonal relationships due to the emotional and practical bonds formed between spouses. Research has shown that married individuals tend to experience greater relational satisfaction compared to their single or divorced counterparts (Coombs, 1991). Emotional support, shared responsibilities, and mutual understanding are key components of healthy marriages that contribute to better interpersonal dynamics (Fincham & Beach, 2006). Studies also suggest that married individuals are more likely to experience enhanced psychological well-being, which in turn improves their ability to engage in positive

interactions with their partner and others in their social networks (Robles & Kiecolt-Glaser, 2003).

A research by Williamson et al (2021) demonstrated that married couples tend to resolve conflicts more constructively compared to those in other intimacy statuses. Their study revealed that married individuals were more likely to employ positive communication strategies, such as active listening and compromise, to maintain relationship harmony. Additionally, married individuals reported higher levels of trust, commitment, and cooperation in their interpersonal relationships (Robles & Kiecolt-Glaser, 2003).

However, marital satisfaction and interpersonal relations can also be affected by stressors such as work, financial issues, and health problems. Pietromonaco and Beck (2019) found that chronic stressors could undermine the quality of interpersonal interactions in marriage, leading to increased conflict and reduced emotional intimacy. Nonetheless, strong communication skills and mutual support are typically effective buffers against such negative impacts.

Interpersonal relations in single individuals

Single individuals, particularly those who are not in committed relationships, tend to rely more heavily on friendships and family for emotional support and social interaction (DePaulo, 2013). Compared to married individuals, singles may maintain a broader range of social connections, yet these relationships may lack the depth and intimacy found in spousal relationships (Reis, 2012). Single individuals often form close friendships that serve as primary sources of emotional support, but they may also experience higher levels of loneliness, particularly if they lack a strong social network (Luhmann & Hawkley, 2016).

Research by Adamczyk and Segrin (2015) indicated that single individuals often experience fluctuations in their interpersonal relationships due to societal pressure and the stigmatization of being single. These external stressors can impact the quality of their relationships, leading to feelings of social isolation or exclusion. Despite this, many single individuals maintain close, supportive relationships with friends and family, which can provide meaningful emotional connections (Willroth & Hill, 2021).

In terms of romantic relationships, single individuals may face challenges in forming and maintaining intimate connections due to alternative attractions, the lack of consistent emotional and practical support (Dolan, 2022). Research has shown that dating and casual relationships may offer less stability and emotional intimacy than marriage or long-term committed partnerships (Hewitt, Baxter, & Western, 2005). However, some single individuals report greater autonomy and self-sufficiency, which can positively influence their personal well-being and interpersonal relations (DePaulo, 2013).

Interpersonal relations in divorced individuals

Divorce often brings significant changes to an individual's interpersonal relationships. Divorced individuals frequently report declines in relationship satisfaction and social support immediately following the separation (Sbarra & Emery, 2005). These individuals may experience a period of social isolation, as divorce often disrupts existing social networks, including friendships and family relationships (Kalmijn & Van Groenou, 2005). Emotional strain and conflict during and after the divorce process can also hinder the development of positive interpersonal interactions.

Divorced individuals tend to experience heightened levels of interpersonal conflict, particularly with their former spouse, which can spill over into other social

relationships (Rhoades, Kamp Dush, Atkins, Stanley, & Markman, 2011). Post-divorce, individuals often need to navigate new co-parenting dynamics or financial arrangements, which may exacerbate conflict and reduce the quality of interpersonal relations (Sbarra & Emery, 2005). In addition, divorced individuals may struggle with trust issues and emotional vulnerability, which can affect their ability to form new intimate relationships.

On the other hand, some divorced individuals report improved interpersonal relations over time, particularly if they are able to rebuild their social networks and develop resilience (Carr & Springer, 2010). Those who engage in therapeutic or self-help interventions often find it easier to navigate post-divorce challenges and improve their interpersonal relations (Sbarra, Emery, Beam, & Ocker, 2014). Additionally, research has shown that divorced individuals who remarry or form new committed relationships tend to report higher levels of interpersonal satisfaction compared to those who remain single after divorce (Vanassche, Sodermans, Matthijs, & Swicegood, 2014).

In conclusion, intimacy status plays a significant role in shaping interpersonal relationships. Married individuals tend to experience greater satisfaction and support, while single and divorced individuals face unique challenges in maintaining healthy interpersonal connections. However, the quality of interpersonal relations within each intimacy status is influenced by individual factors such as communication skills, emotional resilience, and social support. Understanding these differences can inform relationship counselling and support interventions tailored to individuals based on their intimacy status.

2.1.5 Social role differences based on intimacy status.

Social roles are the expected behaviours and responsibilities that individuals take on in various social contexts, influenced by factors such as family, work, and friendship networks. Intimacy status, that is whether an individual is single, married, or divorced, plays a significant role in shaping social roles and mental health outcomes. Over the past decade, a growing body of research has focused on how these social roles, shaped by intimacy status, impact mental health.

Social roles of single individuals and mental health

Being single carries unique social role expectations that can have both positive and negative effects on mental health. Single individuals are often perceived as more independent and self-sufficient; however, they may also experience social isolation due to societal pressure to conform to traditional relationship norms. Dupuis and Girme (2024) argues that single people face stereotypes and discrimination, particularly in cultures where marriage is seen as a social and personal achievement. This “singlism,” or bias against single individuals, can lead to feelings of loneliness and lower self-esteem, impacting mental health outcomes.

On the other hand, some studies indicate that single individuals often experience greater autonomy and freedom in their social roles, which can foster resilience and well-being. For instance, the lack of relational responsibilities allows single individuals to invest more in friendships and career development, potentially offering protective effects against stress and depression (Girme, Park, & MacDonald, 2023). However, the mental health outcomes for single people can vary significantly by gender, with single women more likely to be stigmatized for their singleness compared to single men (Simon & Barrett, 2010). This gendered experience can exacerbate

mental health issues such as anxiety and depression among women, particularly in societies that place high value on marriage.

Mental health and social roles of married individuals

Marriage, historically associated with stability and emotional support, often carries protective mental health benefits due to the social and emotional roles embedded in the marital relationship. Married individuals generally report higher levels of life satisfaction and lower rates of depression compared to their single and divorced counterparts (Umberson et al., 2014). The emotional and financial support provided by a spouse, along with shared responsibilities, can alleviate stress and contribute to better mental health outcomes.

However, these benefits are not uniform across all marriages. The quality of the marital relationship plays a critical role in determining mental health outcomes. Research by Whisman and Uebelacker (2009) highlights that individuals in high-conflict or unsatisfactory marriages report worse mental health compared to those who are happily married or even those who are single. Additionally, traditional gender roles within marriage, where women take on more caregiving responsibilities and men are expected to be primary providers, can lead to stress and anxiety, particularly when these roles are imbalanced (Bianchi, Sayer, Milkie, & Robinson, 2012). Married women often bear a larger emotional labour burden, which can increase the risk of anxiety and depression, especially in dual-income households where they still carry the majority of domestic responsibilities (Kalmijn, 2013).

Mental health and social roles of divorced individuals

Divorce often represents a major disruption in both social roles and mental health. Divorced individuals experience significant changes in their identity and social standing, frequently leading to social isolation and stress (Sweeney, 2010). Divorce can negatively impact mental health due to the loss of social support and the restructuring of social networks.

Divorced individuals, on the other hand, frequently experience the most significant declines in mental health, particularly in the short-term following the divorce. However, long-term outcomes for divorced individuals can improve, particularly for those who exit high-conflict marriages, as leaving a toxic relationship can reduce stress and improve overall well-being (Dush & Amato, 2005).

Many divorced individuals, especially men, report increased loneliness and depressive symptoms following the dissolution of a marriage, as they often lose access to shared social networks and family relationships (A. Shapiro & Cooney, 2007).

Gender differences in post-divorce mental health are pronounced, with women generally adjusting better to life after divorce than men. This is partially due to women's tendency to maintain stronger social support networks outside of the marriage, which can buffer against the emotional toll of divorce (Amato, 2014).

The presence of children adds another layer of complexity. Divorced parents, particularly mothers with primary custody, face significant role strain as they balance work and childcare responsibilities, often without the same level of support they had during marriage (Cherlin, 2020). This role strain can result in higher levels of stress, anxiety, and depression, particularly when financial strain is also a factor.

2.1.6 Symptom distress or psychological distress differences based on gender.

Studies on gender differences in psychological distress consistently show that women report higher levels of distress compared to men. Women are more likely to experience anxiety, depression, and somatic symptoms, while men tend to manifest distress through externalizing behaviours such as anger and substance use (Riecher-Rössler, 2017). The reasons for these differences have been attributed to both biological and sociocultural factors. For example, women are more likely to face stressors such as caregiving responsibilities and gender-based discrimination, which contribute to higher levels of distress (Schuch et al., 2018).

Gender disparity in anxiety and depression as psychological distress factors

Research has extensively documented the gender disparity in anxiety and depression rates. According to Matud (2004), women are approximately twice as likely to suffer from anxiety disorders and depression compared to men. This difference emerges early in adolescence and persists throughout adulthood. Biological factors, such as hormonal fluctuations, play a role in the higher prevalence of anxiety and depression in women (Graham & Li, 2017). However, sociocultural factors also contribute significantly, with women being more likely to face chronic stressors, such as caregiving roles and gender inequality (Nolen-Hoeksema, 2012).

In contrast, men, while less likely to report symptoms of anxiety and depression, may experience similar levels of psychological distress but express it differently. Men are more prone to externalizing symptoms, such as substance use and aggressive behaviours, as coping mechanisms for their distress (Leach, Christensen, Mackinnon, Windsor, & Butterworth, 2008). Studies suggest that societal expectations and norms

around masculinity may discourage men from expressing vulnerability, contributing to underreporting of psychological symptoms (Mahalik, Burns, & Syzdek, 2007).

Gender-based stress and coping strategies

When it comes to stress, gender differences are also evident in both the perception and response to stressful events. Women tend to report higher levels of chronic stress than men, with caregiving and interpersonal conflicts being prominent sources (American Psychological Association, 2019). A study by Graves and colleagues (2021) highlighted that females are more likely to engage in emotion-focused coping strategies, such as rumination and seeking social support, which can sometimes exacerbate psychological distress. On the other hand, men are more likely to use venting and problem-focused coping strategies, which can be effective in managing stress but may also lead to the avoidance of emotional expression.

Gender-based differences in psychological distress and physical health symptoms

The link between psychological distress and physical health symptoms also reveals gender-specific patterns. Women are more likely to report somatic complaints, such as headaches, fatigue, and gastrointestinal problems, in response to psychological distress (Barsky, Peekna, & Borus, 2001). These physical manifestations of distress can further exacerbate women's mental health challenges. In contrast, men are less likely to report somatic symptoms but are more prone to engaging in risky health behaviours, such as alcohol and substance use, which can serve as maladaptive coping mechanisms for managing distress (Mahalik et al., 2007).

Gender-based sociocultural and biological differences and psychological distress

The sociocultural expectations surrounding gender play a critical role in shaping how men and women experience and express psychological distress. Traditional gender roles, which emphasize emotional expression for women and stoicism for men, influence the ways in which distress is perceived and reported (Riecher-Rössler, 2017). Women are generally more socially encouraged to seek help and express emotions, which may explain their higher rates of reported distress. In contrast, men are often socialized to suppress emotions, leading to underreporting and reliance on externalizing behaviours (Mahalik et al., 2007).

Biologically, hormonal differences between men and women also contribute to gender disparities in psychological distress. Fluctuations in estrogen and progesterone levels have been linked to increased vulnerability to mood disorders in women, particularly during reproductive events such as menstruation, pregnancy, and menopause (Barsky et al., 2001). On the other hand, testosterone has been found to play a protective role in men's mental health, although its exact influence on psychological distress remains a subject of ongoing research (Riecher-Rössler, 2017).

In summary, it is obvious that gender differences in psychological distress are well-documented, with women consistently reporting higher levels of anxiety, depression, and stress compared to men. While biological factors, such as hormonal fluctuations, play a role in these disparities, sociocultural factors, including gender roles and expectations, are equally influential. Men and women also differ in their coping mechanisms, with women more likely to engage in emotion-focused coping and men in problem-focused coping. These differences in symptom expression and

coping strategies highlight the need for gender-sensitive approaches in the diagnosis and treatment of psychological distress.

2.1.7 Differences in interpersonal relations challenges based on gender.

Friendship/Social relationship challenges and gender

In terms of friendships, men and women experience different challenges in some cases but in others, there is not much differentiation. Way (2011) found that men's friendships are typically cantered around shared activities, and emotional intimacy is often limited. Women, by contrast, tend to have friendships that are more emotionally intimate and supportive, allowing them to share personal issues and receive empathy from their friends (Guerrero et al., 2022).

Other findings suggest that patterns of social connectedness among men are diverse, challenging the social science literature that frames all men's social relationships as being largely instrumental, and men as less able and less interested than women in building emotional and supportive relationships with others (McKenzie, Collings, Jenkin, & River, 2018).

Although women's friendships offer emotional closeness, they are not without challenges. For instance, women may experience challenges such as co-rumination, where they excessively dwell on negative topics, which can contribute to anxiety and depression (Rose, Carlson, & Waller, 2007). Nevertheless, the overall emotional support that women receive from friendships often outweighs these challenges, while men may struggle more due to the emotional distance typical of their friendships. Therefore, men may face more significant relational challenges in friendships due to the lack of emotional depth, which can hinder their ability to cope with stress and personal issues (Gil, 2024).

Relationship challenges in romantic contexts

One of the key domains where gendered differences in relationship challenges emerge is in romantic relationships. Men and women experience challenges in these relationships, but these challenges are often distinct. Men, for instance, are more likely to encounter difficulties in emotional expression, which can negatively impact relationship satisfaction (Ubando, 2016). According to a research by Chaplin (2015), men tend to struggle with expressing vulnerability and discussing emotions, leading to misunderstandings and feelings of emotional disconnect in romantic partnerships. This emotional suppression, which is often linked to traditional gender norms that associate masculinity with stoicism, can create significant barriers to intimacy.

Women, on the other hand, tend to be more communicative and emotionally expressive in romantic relationships, which often facilitates a deeper emotional connection with their partners (Chaplin, 2015). However, this can also be a source of frustration when their male partners do not reciprocate emotional openness. For example, Tannen (2007) argues that women often desire more emotional communication and conflict resolution, while men may prefer to avoid conflict altogether, leading to relationship dissatisfaction for both parties. Consequently, while both genders face challenges in romantic relationships, men may experience more difficulty navigating emotional aspects, which are crucial for relationship satisfaction.

Gender and communication differences in relationship conflicts

Men's tendency to avoid emotionally charged discussions can lead to unresolved conflicts, which may strain their relationships. In contrast, women are more likely to address and resolve conflicts through open communication and emotional expression (Gottman, 2015). As a result, men may experience more relationship challenges

because their communication styles may prevent effective problem-solving and conflict resolution. This is further complicated by societal expectations that men should be emotionally self-reliant and refrain from showing vulnerability, making it difficult for them to engage in open emotional discussions (Mahalik et al., 2007).

Gender differences in emotional expression and vulnerability

Emotional expression is another critical factor in understanding gendered relationship challenges. Research consistently shows that men are socialized to suppress their emotions, particularly those associated with vulnerability, such as sadness or fear (Way, 2011). This emotional restraint can cause men to struggle in forming and maintaining close, emotionally intimate relationships, particularly with romantic partners and friends (Mahalik et al., 2007). The inability to express vulnerability can also hinder men's ability to seek help or support during times of stress. This can further contribute to relationship strain.

Women, by contrast, are generally more emotionally expressive and are socialized to be more attuned to the emotional needs of others (Brody & Hall, 2010). This emotional expressiveness allows women to navigate relational difficulties more effectively, as they are more likely to seek emotional support and engage in problem-solving conversations (Tannen, 2007). However, the societal expectation for women to be emotionally nurturing can also place an additional burden on them to maintain relational harmony, particularly in romantic and familial relationships, which can lead to stress and burnout (Bedrov & Gable, 2023). While both men and women face emotional challenges in relationships, men may experience more difficulties due to societal pressures to suppress vulnerability, which limits their emotional engagement.

Keenan and Hipwell (Keenan & Hipwell, 2005) found that Girls who show an exaggerated “female” pattern of coping with stressors by expressing high sadness, anxiety, and empathy, unfelt cheeriness, and by suppressing anger displays, may be at risk for internalizing distress and developing depression and anxiety. Boys who show an exaggerated pattern of expressing un-modulated anger and by suppressing sadness and anxiety may be at risk for developing behaviour problems and possibly substance use (Chaplin, 2015).

Coping mechanisms and relational challenges

Coping mechanisms in response to relationship challenges also differ by gender. Men are more likely to engage in problem-focused coping strategies, such as attempting to solve relationship issues through action rather than emotional discussion (Cholankiril, Xiang, & Badr, 2023; Tamres, Janicki, & Helgeson, 2002). This approach can be effective in some situations but may exacerbate problems in relationships that require emotional communication and empathy. Women, on the other hand, are more likely to use emotion-focused coping strategies, such as seeking social support and processing emotions with others (Matud, 2004). These strategies often help women navigate relational challenges more successfully.

However, both genders face risks when coping strategies become maladaptive. For example, men may resort to avoidance or substance use as a way of coping with relational stress, which can lead to further relationship problems (Mahalik et al., 2007). Women, conversely, may experience heightened emotional distress from co-rumination with friends or from taking on the emotional burdens of others (Rose & Rudolph, 2006). Despite these challenges, men’s reliance on avoidant coping

strategies and their tendency to engage in fewer emotionally supportive relationships may contribute to greater relational difficulties overall.

2.1.8 Social role challenges based on gender.

Roles, gender norms and stereotypes

One recurring theme in the literature is the influence of traditional gender norms. Research by Eagly and Wood (2012) highlights that men and women are often socialized to adopt different roles, with men expected to be providers and assertive leaders, and women encouraged to be caregivers and emotionally nurturing. These expectations can restrict both genders from fully expressing themselves, but women, in particular, face additional challenges related to balancing professional and domestic roles. For example, a study by Ridgeway (2012) found that women often struggle to overcome stereotypes that limit their perceived competence in leadership roles, creating barriers to career advancement.

Gender, workplace roles and career barriers

Gendered expectations also extend into the workplace. Men are more likely to face social pressure to conform to hyper-masculine ideals of success and competitiveness, while women encounter challenges related to underrepresentation in leadership roles (Colella & King, 2018). Women in male-dominated professions often face the "glass ceiling" effect, limiting their upward mobility (WHO, 2019). On the other hand, men in female-dominated professions (e.g., nursing, teaching) experience what has been referred to as the "glass escalator," where they are often fast-tracked into higher positions (Williams, 1992).

Work-life balance and domestic responsibilities

Another significant difference lies in work-life balance. Research by Hochschild and Machung (2012) indicates that women are more likely than men to face the "second shift," where they must manage domestic responsibilities alongside professional work. Although men have increasingly taken on caregiving roles, studies like that of Craig and Mullan (2011) show that women continue to shoulder the majority of unpaid labour in the household, making it more difficult for them to attain work-life balance.

Social roles, emotional and psychological challenges

The literature also points to emotional and psychological differences in how men and women experience social role challenges. Men are often socialized to suppress emotions and adhere to stoic ideals, which can result in higher levels of stress and mental health issues (Mahalik et al., 2007). Women, while often perceived as more emotionally expressive, face greater risks of emotional burnout, particularly those juggling multiple roles such as mother, caregiver, and professional (Vuolo, Staff, & Mortimer, 2012).

Intersectionality of race, class, and other identity factors

A crucial development in recent research has been the incorporation of intersectionality into discussions of gender and social role challenges. A study by Collins and others (2021) emphasize that gender cannot be examined in isolation from race, class, and other identity factors. For instance, women of colour experience compounded challenges due to both gendered and racialized stereotypes, often facing systemic barriers that white women or men of colour may not encounter (Battle & Carty, 2022).

Changing dynamics in gender and social roles

Finally, there has been a growing recognition of changing gender roles in the 21st century. Studies by Pew Research indicate that younger generations are increasingly challenging traditional norms, with men more willing to engage in caregiving and women seeking higher professional status (Schaeffer, 2024). However, the persistence of ingrained stereotypes and unequal structural dynamics suggests that men and women continue to face distinct social role challenges, even as these roles evolve.

From the above discussions, it is clear that literature consistently shows that while men and women face many of the same social role challenges, the specific nature of these challenges is often different due to gender norms, societal expectations, and structural inequalities. Men tend to face pressures related to emotional suppression and adherence to traditional masculinity, while women struggle with work-life balance and career advancement in male-dominated fields. Intersectional factors further complicate these experiences, suggesting that a nuanced, multifaceted approach is necessary to fully understand gendered social role challenges.

2.1.9 Psychological distress among young emerging adults in health professions

Prevalence of psychological distress in emerging adults in health professions

Research consistently shows that young adults pursuing health-related careers report high levels of psychological distress compared to their peers in other fields. A systematic review by Dyrbye and colleagues (2006) found that medical students experience higher rates of anxiety, depression, and burnout compared to the general population. The pressures of medical education, combined with the demands of clinical training, are often cited as key contributors to these mental health issues. In their meta-analysis, Dyrbye and colleagues (2006) revealed that nearly half of medical

students reported symptoms of burnout, with significant proportions also showing signs of depression and anxiety.

Similarly, a longitudinal study by Enns et al. (2018) focused on nursing students and reported that approximately 42% of participants showed clinically significant levels of psychological distress during their academic years. These levels remained elevated even after transitioning into clinical practice, indicating that the challenges faced during their education may have lasting effects.

A study by Frajerman and colleagues (2022) among pharmacy, dental and medical students found that burnout was present in 42% of nonclinical students and 65% of clinical students and residents. There was also elevated prevalences of psychiatric symptoms with variation depending on specialty. Fewer studies are available on pharmacy and dental students than on medical students, but these two specialties also exhibited a high prevalence of psychiatric disorders. Preventive actions and psychological support should concern all students, regardless of their specialty.

Causes of psychological distress among emerging adults in the health professions

Clinical training introduces emotional stressors that can exacerbate mental health issues. Exposure to patient suffering, death, and high-stakes decision-making can cause young health professionals to feel overwhelmed (Menestrel, Williams, & Wakefield, 2021).

The role of personal identity and self-esteem in contributing to distress is also significant. Emerging adulthood is a critical time for identity formation, and many students struggle to reconcile their personal and professional identities. As a result,

students with lower self-esteem were more likely to experience psychological distress (Nguyen, Wright, Dedding, Pham, & Bunders, 2019).

Coping Mechanisms and Support Systems

Coping mechanisms vary widely among young adults in health professions. Many students turn to maladaptive strategies such as substance use, social withdrawal, or denial, which can exacerbate their distress over time (Yousafzai et al., 2009).

Institutions play a crucial role in supporting young professionals by providing mental health resources and fostering an environment that prioritizes well-being. A research by Burlison, featured in the Nurse Educator emphasized the importance of integrating wellness programs into the curriculum and reducing the stigma associated with seeking help (Burlison, Thomas, & DeBoor, 2022). However, a gap remains between the availability of these resources and their accessibility to students.

2.2 Summary: Literature gap warranting this research

Literature was thoroughly reviewed on a variety of topics, including psychological functioning, The OQ45.2 as a measure of the dependent variables, the rising mental health problems among college students worldwide, in Africa, and Ghana; psychological distress among health professionals on a global scale, in Africa, and Ghana; symptoms distress and intimacy; interpersonal relations differences based on intimacy status; social role differences based on intimacy status; symptoms distress differences based on gender; interpersonal relations differences based on gender; and social role differences based on gender. However, there was a notable paucity of literature on the clusters of psychological functioning variables as contained in the OQ45.2 and its mental health statistics of tertiary students in general and nursing training specifically, in Ghana, as well as data on the effectiveness of Solution-

Focused Brief Therapy (SFBT) and Cognitive Behavioural Therapy (CBT) within the Ghanaian population. This strongly demonstrates the need and justification of this study to fill this knowledge gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This study assessed psychological functioning among trainee-nurses. The study also examined the effect of Cognitive Behaviour Therapy (CBT) and Solution-Focused Brief Therapy (SFBT) techniques on psychological functioning among these trainee-nurses. This chapter looks into the researcher's methodology adopted for the study.

3.1 Research Paradigm

This study is guided by the two research paradigms of **ontology** and **epistemology** (Creswell & Creswell, 2023),

3.1.1 Ontological assumptions of the researcher

This research is posited within the objectivists' paradigm as opposed to the Subjectivism paradigm. Objectivism asserts that 'social phenomena and their meanings have an existence that is independent of social actors' (Bryman, 2015). The core of this paradigm is that reality exists independently of social actors. Objectivists therefore key in on identifying the cause of social behaviour so as to establish the causality between social phenomena (Furlong & Marsh, 2010).

The paradigm assumes that there exists an objective reality that the researcher should do well to unearth as they conduct their research. This reality exists and that it is not out of reach and that it is stable, can be observed and measured. The focus will not be on the state of fluidity of the participants interactions (LeCompte & Schensul, 2010) but on the observable and measurable outcomes of the effect of the therapies.

The researcher will assess psychological functioning, looking out for psychopathology which the researcher, based on reviewed literature, assumes is present in the population. After therapy is provided, the outcome is measured again objectively. At no point will reality be constructed. Hence, this research leans heavily towards the positivist paradigm, which is an objectivists paradigm.

3.1.2 Epistemological assumptions of the researcher

This research is situated within the positivists' paradigm. As a philosophy, positivism adheres to the view that only factual knowledge gained through observation (the senses), including measurement, is trustworthy (Dudovskiy, 2019). Positivist paradigm assumes that there exists an objective reality that the researcher should do well to unearth as they conduct their research. Positivists' paradigms assumes that reality exists that is not out of reach and that it is stable, can be observed and measured. This approach is opposed to the constructivism (Hasa, 2020) approach that assumes that humans construct knowledge through their intelligence, experiences, and interactions with the world. It is also different from the interpretivist view that relies on the way individuals interpret the social world (Yanow & Schwartz-Shea, 2011).

3.2 Research Approach

The present study utilized the quantitative approach. It sourced knowledge that is transmitted in a tangible form. Although the provision of CBT or SFBT appears qualitative in nature, it is not done to directly tease out qualitative information sought through experience and insight (Bryman, 2016). Rather, the measure is done on the outcome. This outcome is transmitted as hard, real, and tangible information. The

same applies to the initial information that establishes the state of psychological functioning in the sample.

3.3 Research Design

This research utilized a **randomized experimental design** with imperfect control group due to real-world constraints. In other words, it is a Pretest-posttest randomized control group design involving human subjects. The researcher chose to use the Pretest-Posttest randomized control group design because it served the purpose of the study which was to find out the efficacy of CBT or SFBT as therapeutic interventions in improving psychological functioning among nursing-trainees. Since a control group was used, the approach ceased to be quasi-experimental. However, it is also not a strictly experimental design because the student subjects could interact after the treatment sessions in spite of keeping to strict confidential agreement to not disclose information to others. Eligible trainee nurses were randomly assigned to either an experimental group (receiving Solution-Focused Brief Therapy and Cognitive Behaviour Therapy) or a control group.

The following steps were involved in using a pretest. posttest design:

- i. Administration of a pre-test to the sample.
- ii. Random assignment of research participants into experimental and control groups.
- iii. Administration of the treatment to the experimental group while the control group receives no real treatment (placebo),
- iv. Administration of a post-test to both groups.

The design is illustrated in Figure 1a and table 1 below:

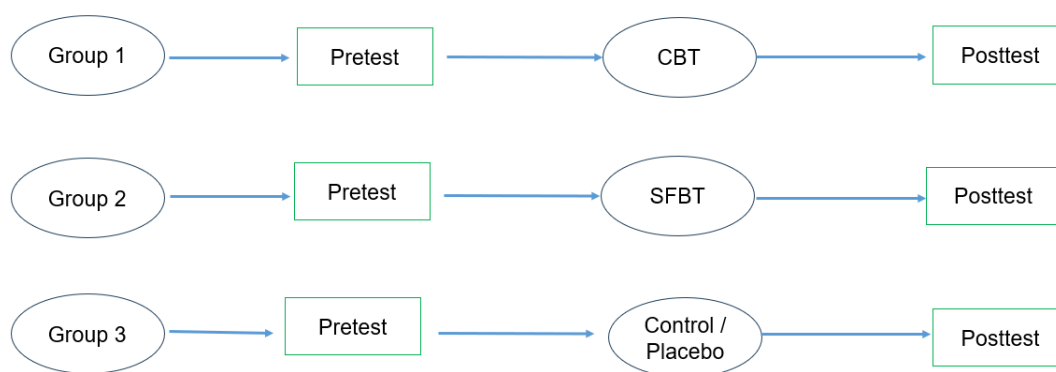


Figure 1a: Group, stage and treatment flow.

		Group 1	Group 2	Group 3	
Pre-test assessment	Random assignment to groups	CBT	SFBT	Control / Placebo	Post-test assessment

Table 1: Pretest-posttest randomized control group design

Source: Patten & Newhart, 2018

3.4 Population of the Study

The population for this study generally consisted of all trainee-nurses in the Greater Accra region of Ghana. However, the specific population are the trainee-nurses at the Nursing and Midwifery Training College (NMTC), Teshie.

3.5 Study setting

The study setting is the Nursing and Midwifery Training College (NMTC), Teshie located in the Greater Accra region of Ghana. It was founded in 2008. NMTC Teshie’s reach is both local and international. It partners with its hometown of Teshie to strengthen the city’s community and economy. And it engages with people and institutions across the globe in the quest to promote cultural understanding, improve the human condition, delve more deeply into the secrets of improving health, and train

the next generation of world leaders. NMTC Teshie is devoted to excellence in teaching, learning, and research, and to developing leaders in its many health disciplines who make a difference globally. The College, which is based in Teshie Tsui Bleoo in the Ledzokuku municipality, has an enrolment of over 1,000 students offering programmes in state Registered General Nursing (RGN), Registered Midwife (RM), Nurse Assistant Clinical (NAC) and Post-Nursing Assistance Certificate (PNAC). NMTC Teshie has more than 5,000 alumni around the world.

3.6 Sample and Sampling Technique

The sample of the study consisted of trainee-nurses identified with clinically significant OQ45.2 scores (Total OQ of ≥ 64) at the pre-test. These trainee-nurses were purposively selected to become the treatment sample for the study. The link to the questionnaire containing the pre-test was electronically made available to all the students via the Students Representative Council's (SRC) portal. Since purposive sampling has to do with deliberately choosing participants or cases based on specific criteria relevant to the research hypothesis or objectives, each response was evaluated on whether they met the cut off point or not. In this case, it was the determination that the scores on OQ45.2 of the client were at the point described by clinicians as clinically significant and necessary for therapeutic intervention (Chiappelli, Lo Coco, Gullo, Bensi, & Prestano, 2008; De Jong & Berg, 2013).

It is important to get a good sample with the requisite effect size for experimental research. To achieve this, the G*Power software was used to determine an appropriate sample size needed to compute requisite effect size (Faul, Erdfelder, Lang, & Buchner, 2007). G*Power does not need the total population number to do its estimates. All that are needed are the test type, alpha level and desired power. G*Power does not only compute sample size and effect size, but it can also display

the results of power analyses graphically (see figure 3). With an estimated alpha set at .05, and effect size determined at large effect (0.5; Cohen, 1988) the actual sample size was determined by G*Power at 54. However, because of threats to internal validity known in experimental studies (e.g., history, maturation, testing; (Patten & Newhart, 2018), vis-à-vis the two experimental groupings plus the control group, sample size was increased to 60 participants.

All those that met the cut-off point were put in a randomization application which used random numbers to choose sixty (60) participants. These were then grouped into the treatment and control groups. Purposive selection ensured maximal variation determined by trainee-nurses' scores as measured by the OQ-45.2 questionnaire (Patten & Newhart, 2018).

The treatment group had 40 participants, with 20 for CBT and 20 for SFBT; The control group had 20 participants.

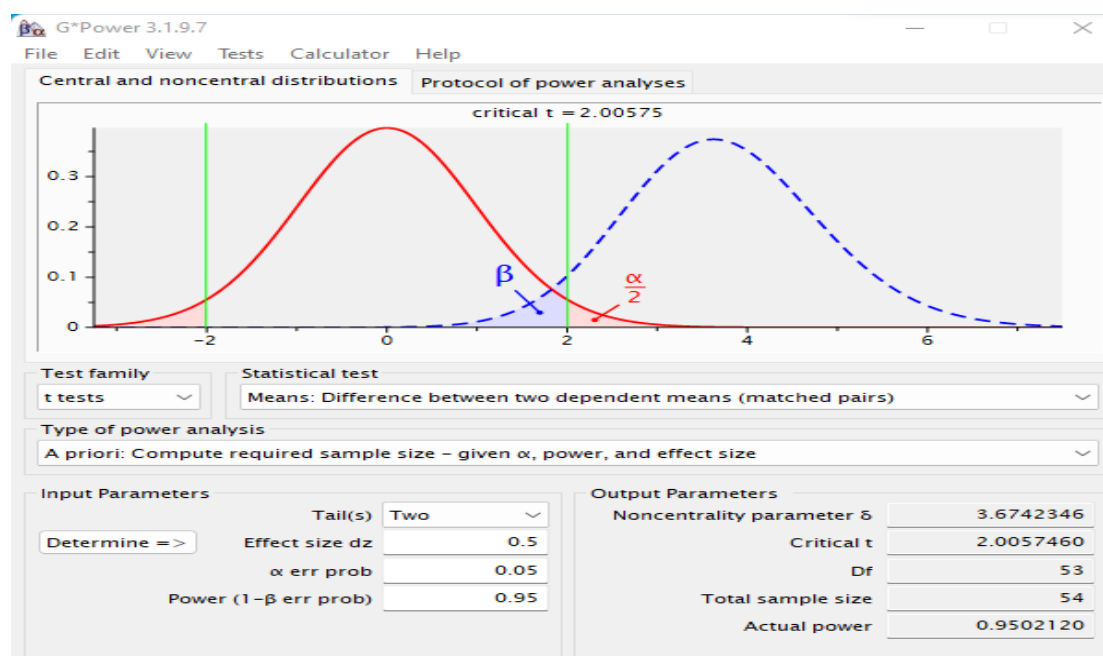


Figure 2: G*Power A Priori Analysis for Pretest-Posttest Protocol

Students were briefed by the researcher in-person during their morning devotion. Later, information was posted to the students' WhatsApp platform that

provided a link to take the assessment and fill out demographic information. Qualified participants were those who had higher marks above the cutoff point in a particular domain. They were then randomly assigned to the control and experimental groups, using a random number generator software.

Three sets of 20 randomly generated numbers from 1 to 60, with no repeating numbers across the sets:

Set 1- CBT: 6, 10, 13, 14, 15, 18, 21, 23, 25, 30, 33, 34, 37, 41, 42, 46, 47, 48, 55, 60

Set 2- SFBT: 1, 2, 4, 8, 11, 16, 20, 22, 26, 29, 32, 36, 38, 39, 43, 50, 53, 56, 57, 59

Set 3- Placebo: 3, 5, 7, 9, 12, 17, 19, 24, 27, 28, 31, 35, 40, 44, 45, 49, 51, 52, 54, 58

Figure 3: Random number generator output of participants to be assigned to two experimental (SFBT & CBT) and one control/placebo groups.

3.7 Instrumentation

The Outcome Questionnaire 45 version 2 (OQ-45.2; M. Lambert, Hansen, & Harmon, 2010) was used for the study.

The OQ-45.2 is a 45-item self-report measure that assesses clients' distress and functioning over a period. The measure is generally administered before each therapy session to track progress in therapy. Items in the measure are ranked on a 5-point Likert type scale that ranges from 'never' (1) to 'always' (5). Total scores range from 0 to 180; higher scores reflect more severe distress while lower scores represent lower distress. The instrument generates a general dimension, considering all the items. Scores at and above 64 indicate symptoms of clinical significance (Beckstead et al., 2003). Because of the utility of this instrument, it has been translated into multiple languages, with appropriate psychometric indices (Chiappelli et al., 2008; De Jonge, Bockting, Kikkert, Bosmans, & Dekker, 2015; Errázuriz, Opazo, Behn, Silva,

& Gloger, 2017). Four items within the OQ-45 scale are considered “critical items”. These items are item 8, which assesses suicide; items 11 and 32 which assess substance abuse; and item 44 which assesses violence.

The psychometric properties of the scale have been widely investigated, resulting in an adequate internal consistency with a strong reliability coefficient ($\alpha = .93$; Cohen, 1988). The OQ-45 also has three subscales namely: Symptom Distress (SD), Interpersonal Relations (IR), and Social Role (SR).

The symptom distress subscale measures the extent to which an individual exhibits symptoms of anxiety disorders, affective disorders, adjustment disorders and stress related illness. Sample items include “I tire quickly”, and “I feel irritated.” The symptoms distress subscale ranges from a low of zero to a high of 100. As indicated by Lambert et al (2010) and Michael J. Lambert (2012), scores of 36 or more indicate symptoms of clinical significance.

The interpersonal relations subscale assesses complaints such as loneliness, conflicts with others, intimacy, family and marriage problems. Sample items include “I have unfulfilling sex life”, and “I have trouble getting along with friends and close acquaintances.” The interpersonal relations subscale ranges from a low of zero to a high of 44. Clinical cut-off scores are 15 and above. According to Michael J. Lambert (2015) clinical cut-off also means scores of clinical significance.

The social role subscale measures the extent to which difficulties in the social roles of worker, homemaker or student are present. Conflicts at work, overwork, distress and inefficiency in these roles are assessed. Sample statements are “I feel stressed at work/school,” and “I feel angry enough at work/school to do something I might regret”. The social role subscale ranges from a low of zero to a high of 36.

Scores of 12 or more indicate symptoms of clinical significance (Beckstead et al., 2003).

Issues of risk are measured on the scale via statements like the one in item 44 which says: “I feel angry enough at work/school to do something I might regret” and “I have trouble at work/school because of drinking or drug use” which is item 32.

Although OQ-45.2 is designed to track changes in psychological functioning over time, scores on the subscales can be used to determine which areas of functioning are most problematic for the patient and these can be imbedded in a treatment plan and tracked over time. From the studies of Michael J. Lambert (2010), between 85-100% of treatment failures can be identified by the OQ-45 before the trainee-nurses leave treatment and often within 3-5 sessions after entering treatment.

In a study involving four different sample sizes, the symptom distress subscale showed a consistent internal reliability of Cronbach’s alpha of .81, .78 and .85 for sample sizes 170, 120 and 100 respectively (Da Silva, Alves, Peixoto, Rocha, & Nakano, 2016). For the interpersonal relations subscale, reliability of .80, .78 and .85 were recorded for sample sizes 170, 120 and 100 respectively (Da Silva et al., 2016). The social role subscale recorded reliability of .82, .80 and .83 for sample sizes 170, 120 and 100. The reliability for the scores for total OQ for this sample was acceptable at pretest ($\alpha = .658$; (Cohen, 1988) and high at posttest ($\alpha = .865$; (Cohen, 1988).

3.8 Pilot Test

Trainee-Nurses from the Methodist University in Accra were asked to complete the questionnaire. This was done to ensure that there was no ambiguity or bias and also to fine tune the instrument if need be (Flick, 2017).

Information was sent to course representatives to ask eligible students to voluntarily participate in the study. The link to the questionnaire containing the pre-

test was electronically made available to the students. Since purposive sampling has to do with deliberately choosing participants or cases based on specific criteria relevant to the research question or objectives, each response was evaluated on whether they met the cut off point or not. In all, 31 students met the cut off criteria. There were 27 females and four males in this pilot sample. On average, participants' median age was 19 years old ($M = 20.13$; $SD = 2.51$). The youngest was 17 years old and the oldest was 26 years old. Participants' intimacy status was varied – single and not searching ($n = 4$); single and searching ($n = 14$); and in a relationship ($n = 13$). It appears that consistent with individuals in this age range, there was either a need for or inclination towards intimacy, as indicated by the combined *partnering* of over 80% of the sample size. There was an almost even split between those in the first year ($n = 15$; 48.4%) and those in the second year ($n = 16$; 51.6%).

Cronbach's alpha was the index used to measure reliability. Cronbach's alpha is a measure of internal consistency; specifically, how closely related a set of items are as a group (Cohen, 1988). Theoretically, the Cronbach's alpha provides a number between 0 and 1. The general rule of thumb is that a Cronbach's alpha of .70 and above is good. Cohen's (1988) index was used as a measure of classification; $<0.6 =$ poor; 0.6 to $0.7 =$ Moderate; 0.7 to $0.8 =$ good; more than $0.8 =$ excellent.

At pre-test, the total OQ for the pilot group was moderate ($\alpha = .740$) and at post-test, the total OQ for the pilot group was excellent ($\alpha = .932$). These reliability scores provided evidence that the instrument was good to be used in the trainee nurses sample that the research focused on.

3.9 Pre-administration training

One Research Assistant was employed for this study. The research assistant participated in 4 hours' OQ45.2 administration, cognitive behaviour therapy (CBT) and solution-focused brief therapy (SFBT) training. The training covered the areas listed below:

- a) Administration and scoring of the OQ45.2 instrument.
- b) Visual identification and flagging of critical items on the OQ45.2 instrument.
- c) Tenets/ theoretical formulations of SFBT and CBT.
- d) Conducting the intake interview, identification of the problem content area group assignment.
- e) Setting goals for the therapy.
- f) Conditions for change, and
- g) SFBT and CBT techniques.

The research assistant was provided with sample SFBT and CBT intake interview guides. The essence of this was to provide a quick prompt for the research assistant, who also doubled as co-counsellor in the group therapy sessions. The SFBT and CBT training included hands-on practical sessions. This component involved the research assistants administering the OQ45.2 either manually or digitally, conducting post-intake interview screening and in-session client-counsellor roleplay. Some of the roleplays were videotaped so that the research assistant could review them to guide her work for best practice. This was to ensure treatment fidelity (Gearing et al., 2011; Sanetti, Cook, & Cook, 2021).

Table 2. Experimental fidelity – Therapy protocol.

Session	Type of interaction / therapy	Duration	Goals	CBT and Solution-focused techniques
1st	Group (All respondents)	50 minutes	Administration of the OQ45.2 and demographic questionnaire	Nil
2nd	Individual	45 minutes	Screening session to prepare the respondents for group therapy.	Nil
3rd	Group sessions	60 minutes	Group Intake session: Experimental group: To explore the respondents' problems and to review OQ45.2 critical items. Control group: To discuss the challenges and joys of Nursing.	Group therapy (Experimental group) SFBT: Pre-treatment Change Question, Miracle Question Technique, scaling questions. CBT : Discussion on Journaling, roleplay and relaxation techniques. Group therapy (Control group) Normal discussion of the challenges and joys of Nursing.
4th-7th	Group sessions	60 Minutes per session	Progress/process sessions: To gain insight and to administer treatment (real or placebo).	Experimental group: SFBT: Exceptions/rare situations technique, coping questions technique, and compliments. CBT : Cognitive restructuring, behaviour diary,

Session	Type of interaction / therapy	Duration	Goals	CBT and Solution-focused techniques
				roleplay and relaxation techniques.
				Group therapy (Control group) Normal discussion of the challenges and joys of Nursing.
8th		60 minutes	Termination session: Evaluation of progress.	Evaluation of progress, debriefing and planning out-of-therapy continual care. Post-test OQ45.2 administration.

3.10 Data Collection Procedure

After permission was sought from and granted by the Department of Counselling Psychology, permission was sought from the head of the nursing institution. The researcher was given the opportunity to meet the entire body for briefing on the research. Consent was sought from the Students' Representative Council for the researcher to be added to the whole students' body electronic platform. On the platform, the researcher again explained the concepts of consent and the freedom to pull out from the research at will. A link was posted for willing participants to follow for further instructions.

On the researcher's official website platform, the participants consented to the terms of the research and proceeded to fill out the questionnaire and take the OQ45.2 test. This was the pre-test stage.

From the scores of the pre-test, a sample of the nursing-trainees that showed low psychological functioning as determined by the OQ45.2 scale were taken. Participants were then randomly assigned to control and experimental groups. The participants in the experimental groups were either to the SFBT treatment or the CBT. The control group was given a placebo in the form of simply exploring issues of daily living and their experiences in the institutions. After eight sessions of exposure to the treatment and placebo conditions, the participants took the OQ45.2 test again. The pre-test and posttest results were then subjected to statistical analysis.

3.11 Data Analysis

Data analysis was done using the SPSS version 25. Each research hypothesis required a different statistical analysis. Frequencies and percentages were used to understand the demographic information. Reliability analyses were performed to ensure that the instruments used in this sample were reliable. Cronbach's alpha was the index used to measure reliability, and Cohen's (1988) index was used as a measure of classification of effect size (i.e., acceptable; strong; very strong). Normality tests were performed to ensure that all assumptions underpinning the conduct of these parametric analyses had been met.

Table 3. Data Analysis/Analytic Test and Reporting Indices Table

Research Hypotheses	Analytic Test	Reporting Indices
H ₀ 1: Symptoms Distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	Paired samples t-test One way ANOVA	Gain score, t-statistic, p-value F-statistic, degree of freedom (df) p-value, effect size; mean differences in groups

Research Hypotheses	Analytic Test	Reporting Indices
H ₀ 2: Interpersonal Relations differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	Paired samples t-test One way ANOVA	Gain score, t-statistic, p-value F-statistic, degree of freedom (df) p-value, effect size; mean differences in groups
H ₀ 3: Social Role differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups	Paired samples t-test One way ANOVA	Gain score, t-statistic, p-value F-statistic, degree of freedom (df) p-value, effect size; mean differences in groups
H ₀ 4: Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.	Paired samples t-test One way ANOVA	Gain score, t-statistic, p-value F-statistic, degree of freedom (df) p-value, effect size; mean differences in groups
H ₀ 5: Symptom Distress, Interpersonal Relations and Social Role mean score differences based on intimacy	One way ANOVA	F-statistic, degree of freedom (df) p-value, effect size; post-hoc tests if there is significance
H ₀ 6: Symptoms Distress, Interpersonal Relations and Social Role differences based on gender.	Independent Samples t-test	t-statistic; p-value; confidence level and effect size or power.

3.12 Ethical Considerations

The Ghana Psychology Council (GPC) has ethical principles and code of conduct that guides the conducts of psychologists (Ghana Psychology Council, 2019). The Ghana Psychological Association (GPA) also subscribe to these principles. The GPC ethical principles provide specific standards to cover most situations encountered by the psychologist in his/her line of duty including conducting research. Enshrined in the ethical principles are the following:

The researcher must obtain Institutional Approval before setting out to conduct the research. When obtaining informed consent, psychologists inform participants about:

- (1) the purpose of the research, expected duration and procedures;
- (2) their right to decline to participate and to withdraw from the research once participation has begun;
- (3) the foreseeable consequences of declining or withdrawing;
- (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort or adverse effects;
- (5) any prospective research benefits;
- (6) limits of confidentiality;
- (7) incentives for participation; and
- (8) whom to contact for questions about the research and research participants' rights.

To ensure that these principles were actualized, the researcher took certain tangible steps including the following:

(a) **Confidentiality:** The researcher assured the participants that their identity and the information given will be kept in strict confidence and used only for the intended academic purpose for which they consented to participate in the research. In consonance with that, students were instructed not to write their names on the questionnaire or mark them in ways that would reveal their identity. They were rather given codes to help only the researcher to be able to link the results to the specific respondent. However, during treatment (counselling) there was the need to guide against the fusion of information which may influence the results of the treatment.

Steps in guiding against fusion of information during treatment:

- i. Participants filled the group confidentiality form to show that they will keep group identity and group information confidential.
- ii. Each treatment group met on a different day and in different spaces.
- iii. Treatment was done outside of class hours and since it is a day school, majority of students vacate the campus during those periods.

(b) **Freedom of withdrawal:** Participants were told that they were free to pull out of the research at any point if they felt uncomfortable with any procedure or if they felt their confidentiality was being violated.

(c) **Questions about the researcher:** The researcher provided his contact number and e-mail addresses which were printed on the questionnaire so that participants could ask questions if they had any concerning the study. This was also to provide another avenue for confidentiality for participants.

(d) **Deception:** Since the control group were not given any therapy, a form of deception consistent with the American Psychological Association's ethical principles was used; debriefing was done as soon as the intervention was

completed. Deception in this context means that the subjects of the control group were not given therapy. Instead, they were given a lookalike therapy (placebo).

CHAPTER FOUR

LIMITATIONS, RESULTS, AND FINDINGS

4.0 Introduction to the Chapter

This chapter lays out the results for the data collected. The chapter addresses the limitations that arose from collecting data and the overall conduct of this research. The chapter finally displays the analysis, the results, and connected the findings to literature in the form of discussions.

4.1 Limitations of the Study

Some limitations occurred in the conduct of this study. They are discussed below:

- There was some initial difficulty in getting a good number of students for the orientation at any given time since they are day students. The institution allowed the researcher to interact with the students during the school's morning assembly and devotion time, which happens once a week. Since it is a day institution, not all the students are able to arrive on time for the programme, so this means, although useful, it was not entirely productive.
- Most of the third years were going for their practical work and had to be on board the school bus to be transported to their various sites very early in the morning. As a result, they could not be at the in-person briefing. Although the first and second years were the real target groups, the presence of the third years would have motivated more of the juniors to participate in the study.
- The researcher did a lot of education about the research on the students' virtual platform. It was the main platform for the entire student body with the President of Students' Representative Council (SRC) and other leaders as the Administrators. It was a cost-effective way of getting to the entire student body. However, the students' virtual platform also had much traffic, so the

message had to be reposted several times with several reminders. This was done over a period until a good number of the students responded to the questionnaire and those who exhibited the symptoms above the cut-off points were included in the main study.

- Some students were not used to filling out forms online and that might contribute to their inability or lack of motivation to participate in the research.
- Some students missed some sessions due to data and internet connectivity reasons. Although even in in-person therapy sessions, there is bound to be absenteeism or dropping off, of some participants, the reasons might be different. In this case, power outages, data and other connectivity challenges were the main reasons some sessions were missed.
- The research was limited to those reading General Nursing programmes. Finding out about students' psychological functioning across programmes could yield some other interesting findings.

4.2 Results

4.2.0 Analysis of Demographic Variables

Demographic variables for participants included gender, age, year in their education, and intimacy status.

4.2.1 Gender of Participants

Gender for these participants was classified as male ($n = 15$) and female ($n = 45$). Majority of the participants self-described as females (75%).

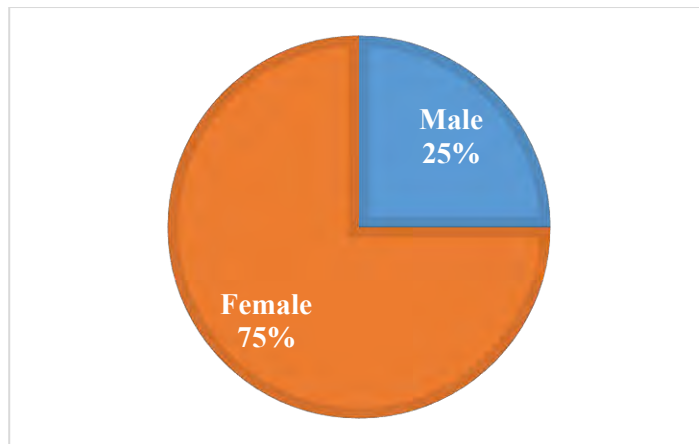


Figure 4: Gender categorization of participants

4.2.2 Age of Participants

Participants' ages ranged between 18 years old to 32 years old. On average, the participants were 19 years old ($M = 20.28$; $SD = 2.89$).

4.2.3 Stage in Educational Progression of Participants

Participants were in the first ($n = 29$) and second year ($n = 31$) of their training. Majority of them were in their second year (52%).

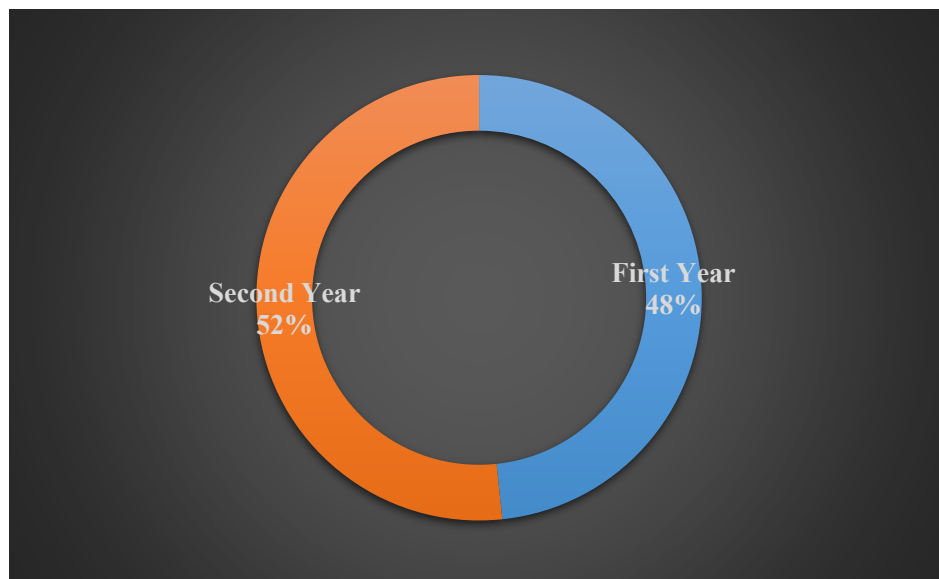


Figure 5: Stage in Educational Progression

4.2.4 Intimacy Description of Participants

In this study, intimacy was conceptualized as the psychological capacity and willingness to engage in emotionally close, committed, and supportive relationships — a key developmental task during young adulthood, as framed by Erikson’s (1993) psychosocial theory. To operationalize intimacy in a way that was both ethically appropriate and contextually relevant within the institutional setting, participants were categorized according to their relationship status: single and not searching, single and searching, in a relationship or married. These categories were used as proxies for different levels or orientations toward intimate involvement. For example, those identified as “single and searching” were presumed to be actively seeking emotional connection, while those “married” or “in long-term relationships” were considered to be engaged in ongoing intimate bonds. This operationalization also allowed for the inclusion of non-traditional students outside the typical emerging adult age bracket, acknowledging the diversity of the training institution’s student population.

According to Erikson, intimacy versus isolation is a central conflict during this life stage, where the individual is expected to form deep, meaningful bonds with others. This is supported by Arnett’s (2000) theory of emerging adulthood, which highlights romantic exploration and the development of close relationships as defining features of individuals aged 18–29, particularly those undergoing transitions in education, work, and self-identity.

Although I acknowledge that relationship status alone does not capture the full spectrum of emotional intimacy (e.g., feelings of closeness, vulnerability, or trust), it offered a practical and culturally sensitive way to approximate intimacy-related experiences within the context of this study. Intimacy was explored to understand if participants were partnered ($n = 36$) or single ($n = 24$).

Table 4. Description of Intimacy Status

Intimacy Description	Frequency	Percent
Single and not searching	11	18.3
Single and searching	13	21.7
In a relationship	35	58.3
Married	1	1.7
Total	60	100.0

4.3. Analysis of reliability indices

Prior to analysing the hypotheses, the instruments were taken through reliability indices to understand the consistency of scores for participants (Patten & Newhart, 2018). Additionally, since each of the analyses comes with assumptions, these assumptions had to be tested to determine if they were met or violated (Hahs-Vaughn & Lomax, 2020). Table 2 displays the Cronbach's alphas for the variables. Cronbach's alpha was the index used to measure reliability, and Cohen's (1988) index was used as a measure of classification (i.e., acceptable; strong; very strong).

Table 5. Reliability Indices for Pretest and Posttest of Variables

Instrument	Pre-Test	Post-Test
Total OQ45.2	.658	.865
Symptoms Distress	.781	.890
Interpersonal Relations	.798	.859
Social Role	.759	.771

Multiple inferential statistics were used, specifically the one-way analysis of variance (ANOVA) and the independent samples t-test ((Field, 2018). Each of these

tests comes with multiple assumptions. For the ANOVA, these assumptions guide its operations:

- i. have a continuous dependent variable;
- ii. independent variable is categorical with two or more independent groups;
- iii. the dependent variable should be approximately normally distributed for each group for the independent variable; and finally
- iv. there should be homogeneity of variances, meaning that the variance should be equal in each group of the independent variable.

The assumption of normal distribution implies that distribution of scores is normal, and the Shapiro-Wilk test is used to assess this assumption. Thus, if Shapiro-Wilk is significant ($>.05$) this assumption has been met. Thankfully, ANOVA is a robust test and can stand the violation of the assumption of normal distribution, especially if the sample size is more than 50 (see Shapiro & Wilk, 1965; Souza, Toebe, Mello, & Bittencourt, 2023). Finally, the assumption of homogeneity is tested using Levene's test of equality of variances. This test for equality of variances proves that the group samples are drawn from populations with the same variances. If Levene's test is statistically significant (i.e., $p < .05$), you have violated the assumption of homogeneity of variances.

Statistical significance is necessary yet not enough in analysing inferential statistics, especially if researchers leave out effect size (Cohen, 1990; Sullivan & Feinn, 2012). Effect size indicates the practical significance of a research outcome – a necessary requirement for the work of counselling and related fields, especially as they apply to the professional development of scholar-practitioners (Balkin & Kleist, 2017). In performing ANOVA analysis, a common measure of effect size is the partial eta squared (η^2). General guidelines followed for the interpretation of η^2 are as

follows: when $\eta^2 = 0.01$, it is considered small effect; when $\eta^2 = 0.06$, it is considered medium effect; and when $\eta^2 = 0.14$, it is considered large effect (Daines, n.d.).

4.4 Analysis of Hypotheses

Analysis was stated in the null with the alternate implied. Thus, for each of the hypotheses, the analyses would determine whether we reject the null or we fail to reject the null (Field, 2018; Hahs-Vaughn & Lomax, 2020; Patten & Newhart, 2018). Two unique tests were performed to understand the hypotheses – a paired samples t-test and a one-way ANOVA.

According to Van and Rietveld (2017) the paired-samples t-test is used to understand whether the mean differences between paired observations is statistically significantly different from zero. Thus, are the observations at pre-test and those at post-test different from zero? The paired-samples t-test is also referred to as the dependent t-test or repeated measures t-test.

Consistent with other inferential statistics, the dependent t-test has several assumptions. These include:

- (b) have a continuous dependent variable;
- (c) the independent variable should be categorical with two related groups;
- (d) the distribution of the differences in the dependent variable between the two related groups should be approximately normally distributed. According to Van and Rietveld (2017) indicate that this assumption of normality, is necessary for statistical significance testing for dependent t-test. However, the dependent t-test is considered “robust” to violations of

normality. Thus, when this assumption is violated, it can still be considered tolerable since the test is still able to provide valid results.

4.4.1 Hypothesis 1 – There is no statistically significant mean score Symptoms Distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.

The first test in answering the hypothesis was a dependent t-test to understand differences in Symptoms Distress at pretest and at post-test. The first two assumptions were met with the setup of the data – Symptoms Distress was measured on a continuous variable. And scores at pretest were different from those at post-test, thus fulfilling the requirements for the first two assumptions. The third assumption needed a different test. Thus, using the explore prompt in descriptive statistics from SPSS, the normality analysis option was selected. Shapiro-Wilk’s test indicated that at pretest, the Symptoms Distress scores violated the assumption of normal distribution ($p < .05$). However, at post-test, the assumption of normal distribution was met for all groups – CBT, SFBT, and Placebo ($p > .05$).

The null hypothesis that there is no difference in Symptoms Distress between pre-test and post-test **was rejected**.

Table 6. Dependent T-test Results of Symptoms Distress

	<i>M</i>	<i>SD</i>	<i>t</i> (39)	<i>p</i>	Cohen’s <i>d</i>
Symptoms Distress			5.95	<.001	.941
Pre-test ($n = 40$)	37.32	12.45			
Post-test ($n = 40$)	24.50	16.41			

There was a statistically significant gain score ($M = 12.82$; $SD 13.62$) between pretest and post-test, $t(39) = 5.95$; $p < .001$. There was a large clinical significance

(Cohen's $d = .941$), indicating that clinically, the intervention was effective in reducing symptoms distress in trainee nurses. Therapy had the ability to reduce symptoms distress from 37.32 ($SD = 12.45$) at pre-test to 24.50 ($SD = 16.41$) at post-test.

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable.

Table 7. Post-test of Symptoms Distress Based on Therapy

Symptoms Distress	<i>M</i>	<i>SD</i>	<i>F</i> (2, 39)	Sig	η^2
CBT	17.25	15.92			
SFBT	23.87	12.93	3.68	.037	.159
Placebo	33.54	17.29			

At post-test, results indicated that CBT had the greatest effect in reducing Symptoms Distress. Post-hoc tests using Tukey indicated that the mean difference occurred between CBT and Placebo (Mean difference = -16.29; $SE = 6.00$; $p = .026$).

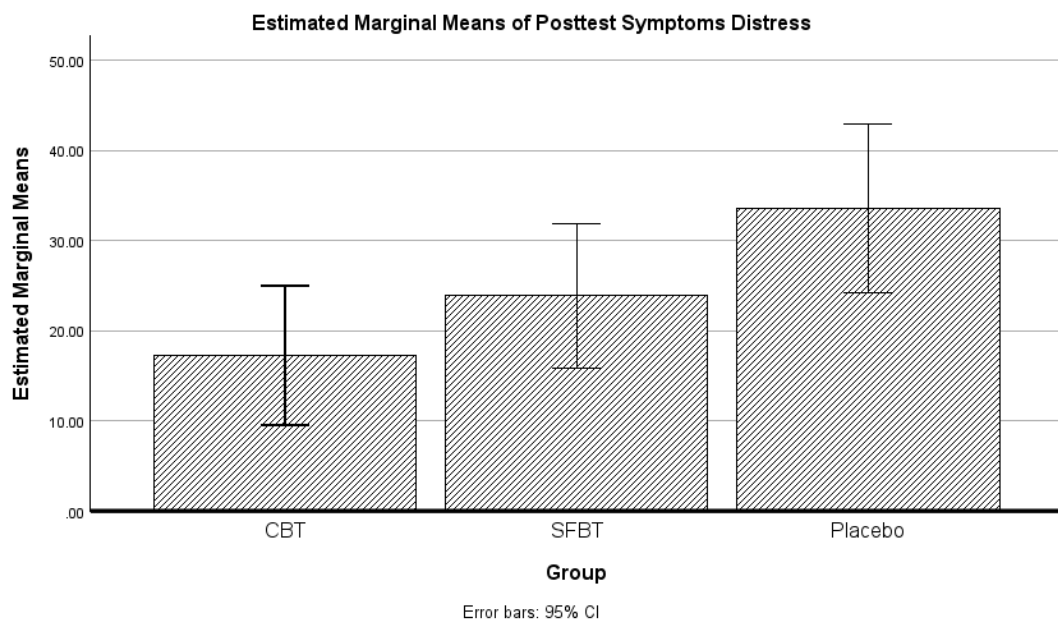


Figure 9: Simple Bar Mean of Therapy Types and Symptoms Distress

The simple bar mean is a pictorial representation of the effectiveness of therapy in reducing Symptoms Distress. The therapy that reduced Symptoms Distress the most was CBT, followed by SFBT.

4.4.2 Hypothesis 2 – There is no statistically significant mean score

Interpersonal Relations differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.

Because all the hypothesis followed the style of the first, report will be given starting from the normality assumptions. Shapiro-Wilk's test indicated that at pretest, Interpersonal Relations scores for CBT violated the assumption of normal distribution ($p = .027$); SFBT ($p = .888$) and Placebo ($p = .134$) met the assumption. At post-test, SFBT violated the assumption ($p = .035$) while CBT ($p = .112$) and Placebo ($p = .081$) met the assumption.

The null hypothesis that there is no difference in Interpersonal Relations between pre-test and post-test **was rejected**.

Table 8. Dependent T-test Results of Interpersonal Relations

	<i>M</i>	<i>SD</i>	<i>t</i> (47)	<i>p</i>	Cohen's <i>d</i>
Interpersonal Relations			3.27	.001	.471
Pre-test ($n = 48$)	16.94	9.35			
Post-test ($n = 48$)	13.12	10.04			

There was a statistically significant gain score ($M = 3.81$; $SD = 8.09$) between pretest and post-test, $t(47) = 3.27$; $p = .001$. There was a moderate clinical significance (Cohen's $d = .471$), indicating that clinically, the intervention was moderately effective in reducing interpersonal relation challenges in trainee nurses. Therapy had the ability to reduce conflict in Interpersonal Relations from 16.94 ($SD = 9.35$) at pre-test to 13.12 ($SD = 10.04$) at post-test.

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable.

Table 9. Post-test of Interpersonal Relations Based on Therapy

Symptoms Distress	<i>M</i>	<i>SD</i>	<i>F</i> (2, 45)	Sig	η^2
CBT	9.87	5.33			
SFBT	6.67	4.51	17.86	< .001	.443
Placebo	21.88	10.99			

At post-test, results indicated that SFBT had the greatest effect in reducing conflicts in Interpersonal Relations. Post-hoc tests using Tukey indicated that the mean difference occurred between SFBT and Placebo (Mean difference = -15.21; *SE* = 2.71; $p < .001$) as well as CBT and Placebo (Mean difference = -12.01; *SE* = 2.67; $p < .001$).

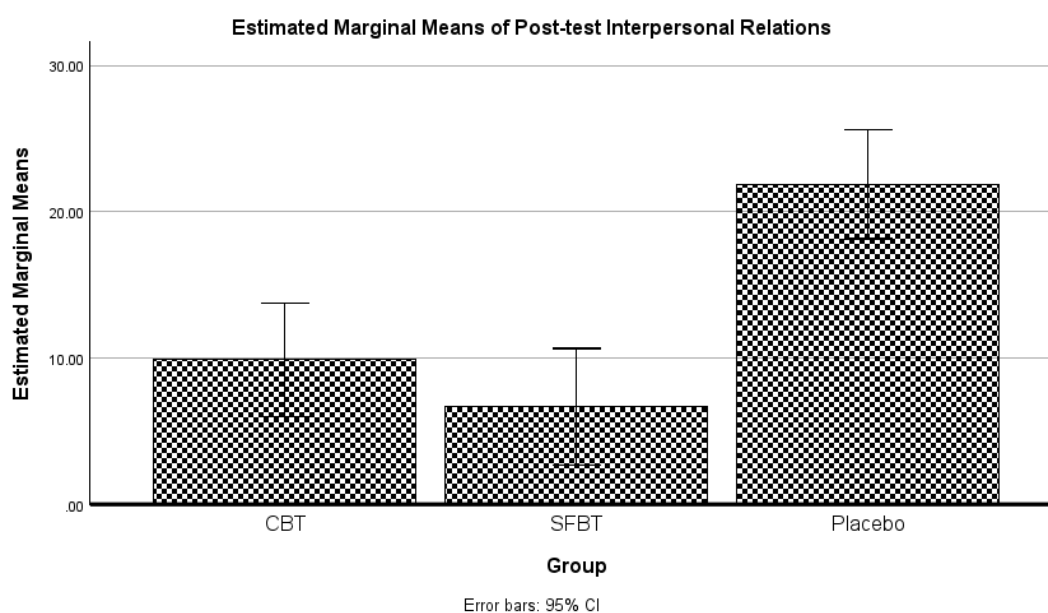


Figure 10: Simple bar mean of therapy types and Interpersonal Relations

The simple bar mean is a pictorial representation of the effectiveness of therapy in reducing conflicts in Interpersonal Relations. When Placebo was compared to CBT and SFBT, SFBT had the ability to reduce conflicts in Interpersonal Relations, followed by CBT.

4.4.3 Hypothesis 3 – There is no statistically significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.

Shapiro-Wilk's test indicated that pretest Social Role scores met the assumption of normal distribution for CBT ($p = .325$), SFBT ($p = .195$) and Placebo ($p = .327$). Assumption of normal distribution was also met post-test for CBT ($p = .158$), SFBT ($p = .220$) and Placebo ($p = .260$).

The null hypothesis that there is no difference in Social Role between pre-test and post-test was rejected.

Table 10. Dependent T-test results of Social Role

	<i>M</i>	<i>SD</i>	<i>t</i> (49)	<i>p</i>	Cohen's <i>d</i>
Social Role			2.94	.003	.416
Pre-test ($n = 50$)	15.60	8.46			
Post-test ($n = 50$)	12.04	8.06			

There was a statistically significant gain score ($M = 3.56$; $SD = 8.56$) between pretest and post-test, $t(49) = 2.94$; $p < .05$. There was a moderate clinical significance (Cohen's $d = .416$), indicating that clinically, the intervention was moderately effective in reducing conflicts in social role for trainee nurses. Therapy had the ability to reduce conflict in social role from 15.60 ($SD = 8.46$) at pre-test to 12.04 ($SD = 8.06$) at post-test.

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable.

Table 11. Post-test of Social Role based on therapy

Social Role	<i>M</i>	<i>SD</i>	<i>F</i> (2, 49)	Sig	η^2
CBT	8.89	5.72			
SFBT	8.62	5.74	11.33	< .001	.316
Placebo	18.05	8.22			

At post-test, results indicated that CBT had the greatest effect in reducing conflicts in Social Role. Post-hoc tests using Tukey indicated that the mean difference occurred between CBT and Placebo (Mean difference = -9.17; $SE = 2.23$; $p < .001$).

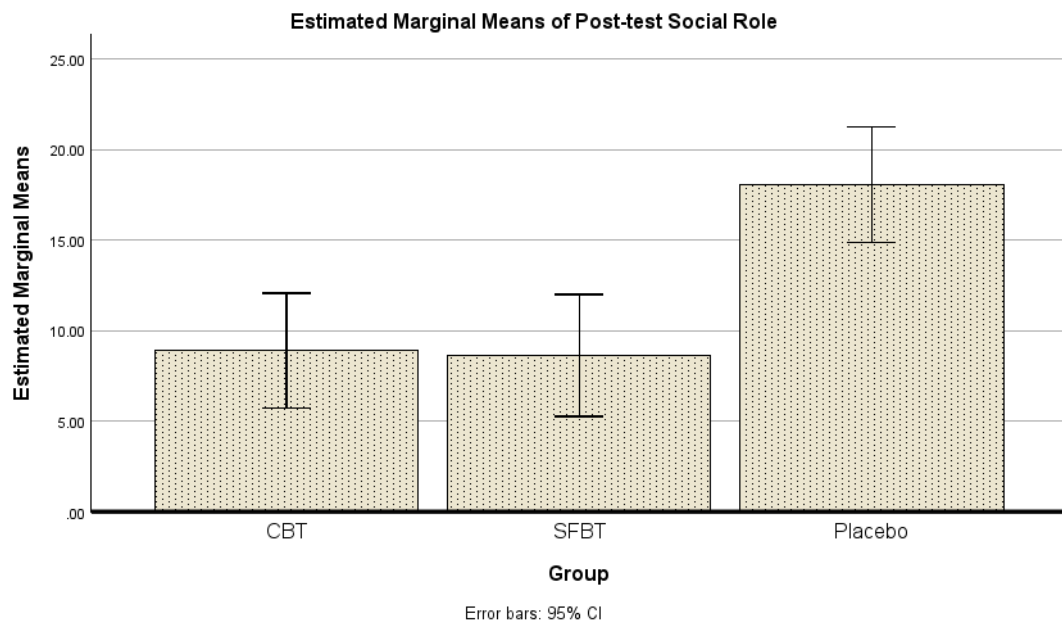


Figure 11: Simple bar mean of therapy types and Social Role

The simple bar mean is a pictorial representation of the effectiveness of therapy in reducing conflicts in Social Role. The therapy that reduced Social Role conflict the most was CBT, followed by SFBT. The difference was quite minimal.

4.4.4 Hypothesis 4 – There is no statistically significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups.

Shapiro-Wilk's test indicated that pretest Risk scores met the assumption of normal distribution for CBT ($p = .657$), SFBT ($p = .858$) and Placebo ($p = .575$). Assumption of normal distribution was also met post-test for CBT ($p = .079$) and Placebo ($p = .599$). Assumption of normal distribution at post-test for SFBT, however, was violated ($p = .007$).

The null hypothesis is rejected. It states that there is no difference in Risk between pre-test and post-test.

There was a statistically significant gain score ($M = 2.65$; $SD = 4.44$) between pretest and post-test, $t(51) = 4.30$; $p < .001$. There was a moderate clinical significance (Cohen's $d = .597$), indicating that clinically, the intervention was moderately effective in reducing incidence of Risk in trainee nurses. Therapy had the ability to reduce the incidence of risk from 8.59 ($SD = 3.60$) at pre-test to 5.94 ($SD = 4.16$) at post-test.

Table 12. Dependent T-test results of incidence of Risk

	<i>M</i>	<i>SD</i>	<i>t</i> (51)	<i>p</i>	Cohen's <i>d</i>
Symptoms Distress			4.30	< .001	.597
Pre-test ($n = 52$)	8.59	3.61			
Post-test ($n = 52$)	5.94	4.16			

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable.

Table 13. Post-test of Risk based on therapy

Risk	<i>M</i>	<i>SD</i>	<i>F</i> (2, 49)	Sig	η^2
CBT	3.70	2.78			
SFBT	4.87	3.03	10.41	< .001	.298
Placebo	8.84	4.46			

At post-test, results indicated that CBT had the greatest effect in reducing incidents of Risk. Post-hoc tests using Tukey indicated that the mean difference occurred between CBT and Placebo (Mean difference = -16.29; $SE = 6.00$; $p = .026$).

At post-test, results indicated that CBT had the greatest effect in reducing incidents of Risk. Post-hoc tests using Tukey indicated that the mean difference occurred between

CBT and Placebo (Mean difference = -5.14; $SE = 1.19$; $p < .001$) as well as SFBT and Placebo (Mean difference = -3.97; $SE = 1.21$; $p < .001$).

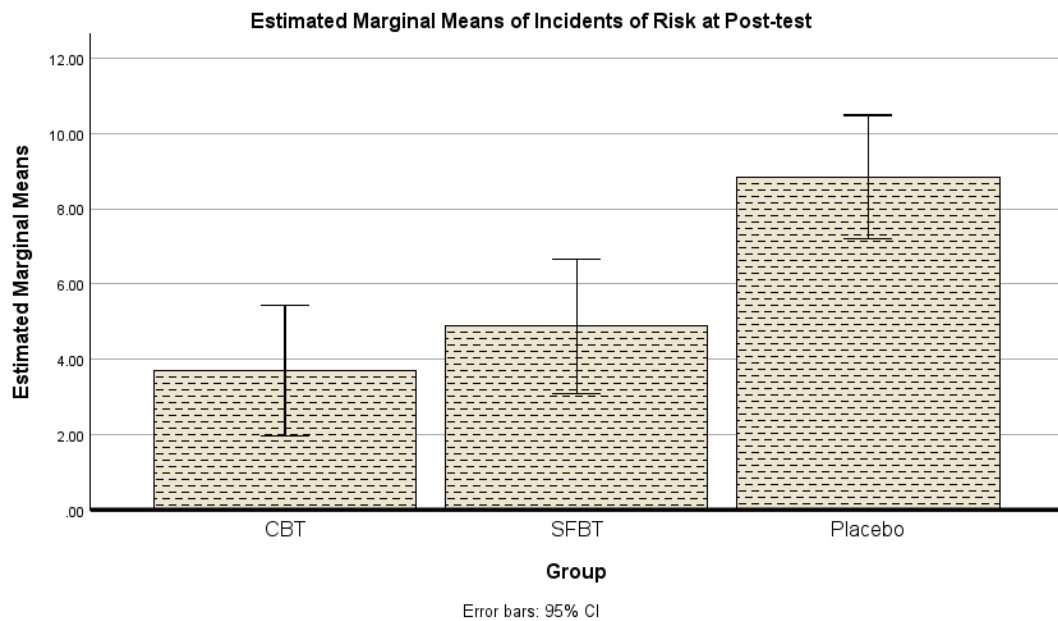


Figure 12: Simple bar mean of therapy types and Risk

The simple bar mean is a pictorial representation of the effectiveness of therapy in reducing incidents of Risk. The therapy that reduced Risk the most was CBT, followed by SFBT.

4.4.5 Hypothesis 5: There is no statistically significant mean score Symptoms

Distress differences, Interpersonal Relations differences and Social Role differences based on intimacy status.

Symptoms Distress and Intimacy

To understand baseline symptoms distress based on reported intimacy type, the one-way analysis of variance (ANOVA) was used. The dependent variable, Symptoms Distress, was measured on a continuous scale with three unique categorizations as independent variables – *not searching*, *searching*, and *partnered*.

This meets assumptions (i) and (ii). Symptoms Distress was normally distributed for “not searching” (Shapiro-Wilk’s test $p = .104$), but not for “searching” (Shapiro-Wilk’s test, $p = .014$) and “partnered” (Shapiro-Wilk’s test, $p < .001$). There was homogeneity of variances, as assessed by Levene’s test for equality of variances ($p = .248$), thus meeting the assumption of homogeneity of variances.

Table 14. ANOVA Table of Symptoms Distress and Intimacy

Intimacy and Symptoms	<i>M</i>	<i>SD</i>	<i>F</i> (2, 39)	Sig	η^2
Distress					
Not searching	33.43	14.45			
Searching	38.00	11.04	312	.734	.013
Partnered	35.38	14.59			

The null hypothesis was not rejected: Symptoms Distress was not statistically significant for the different intimacy levels $F(2, 39) = .683$, $p = .511$. Effect size was small ($\eta^2 = 0.013$), indicating a small clinical significance. Stated another way, no matter a nursing trainee’s intimacy status, they experienced Symptoms Distress similarly.

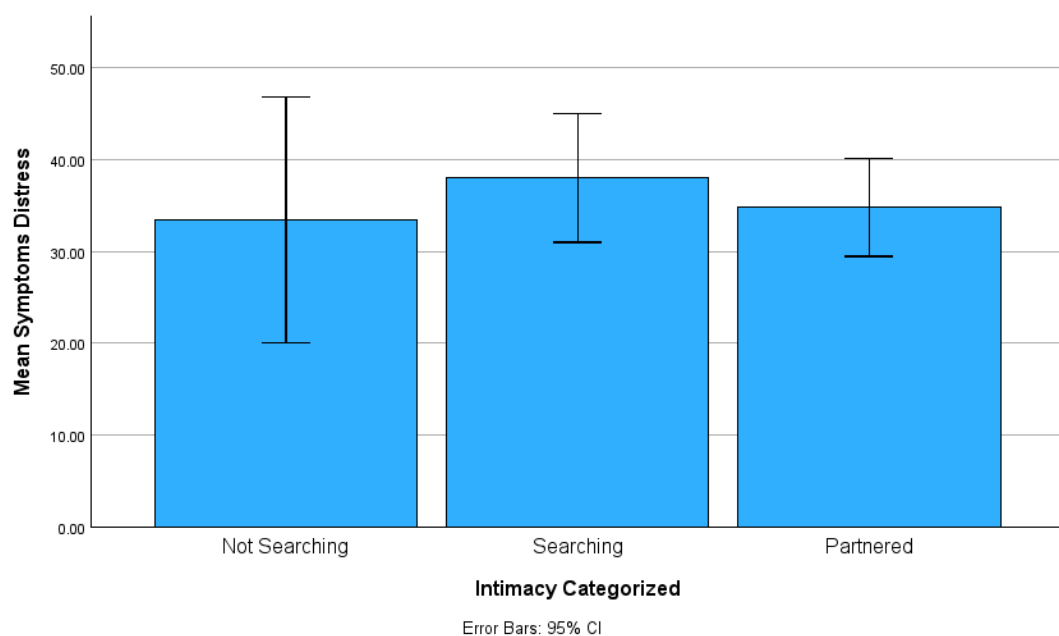


Figure 6: Simple Bar Mean of Symptoms Distress and Intimacy

In terms of effect size, however, the simple bar mean shows that those who reported their intimacy status as “searching” had the most Symptoms Distress, followed by those who were “partnered”. The ones with the least Symptoms Distress were those “not searching”.

Interpersonal Relations and Intimacy

To understand pre-therapy Interpersonal Relations based on reported intimacy type, the one-way analysis of variance (ANOVA) was used. The dependent variable, Interpersonal Relations, was measured on a continuous scale with three unique categorizations as independent variables – *not searching*, *searching*, and *partnered*. This meets assumptions (i) and (ii). Interpersonal Relations was normally distributed for all the groups - “not searching” (Shapiro-Wilk’s test $p = .953$); “searching” (Shapiro-Wilk’s test, $p = .132$); and “partnered” (Shapiro-Wilk’s test, $p = .062$). There was homogeneity of variances, as assessed by Levene’s test for equality of variances ($p = .421$), thus meeting the assumption of homogeneity of variances.

Table 15. ANOVA Table of Interpersonal Relations and Intimacy

Intimacy and	<i>M</i>	<i>SD</i>	<i>F</i>(2, 50)	Sig	η^2
Interpersonal Relations					
Not searching	24.12	11.31			
Searching	15.31	8.25	2.62	.082	.095
Partnered	16.69	8.78			

The null hypothesis was not rejected: Interpersonal Relations was not statistically significant for the different intimacy levels $F(2, 50) = 2.625$, $p = .082$. Effect size was medium ($\eta^2 = 0.095$), indicating a moderate to almost large clinical significance.

Stated another way, no matter a nursing trainee’s intimacy status, they experienced Interpersonal Relations similarly.

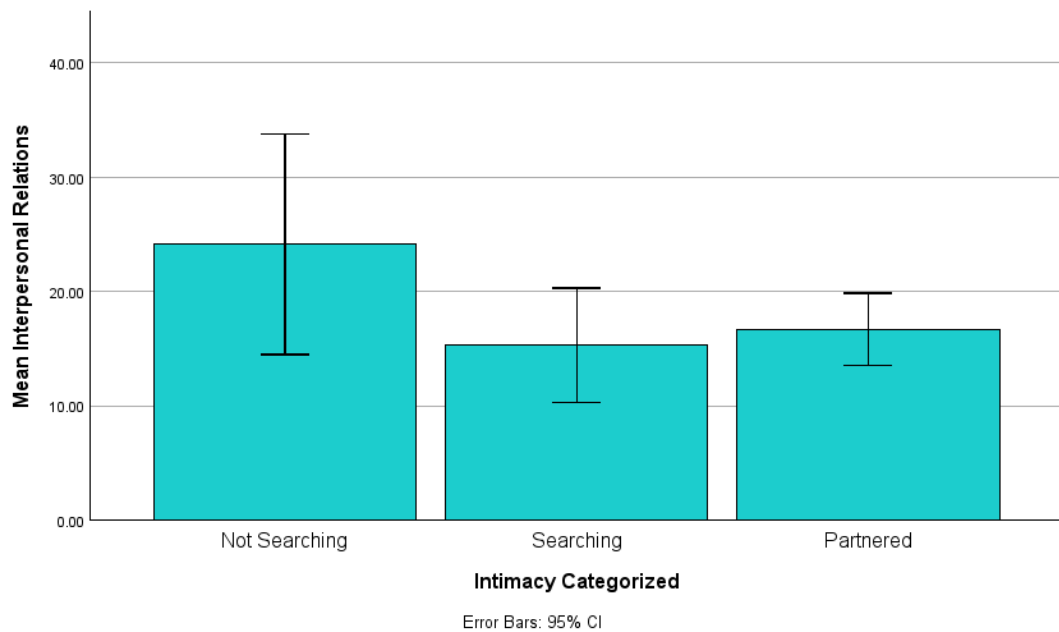


Figure 7: Simple Bar Mean of Intimacy and Interpersonal Relations

The simple bar mean shows that those who reported their intimacy status as “not searching” had the highest challenges with Interpersonal Relations, followed by those who were “partnered”. The group with the least Interpersonal Relations challenges were those who were “searching”.

Social Role and Intimacy

To understand how baseline Social Role differed on intimacy type, the one-way analysis of variance (ANOVA) was used. The dependent variable, Social Role, was measured on a continuous scale with three unique categorizations as independent variables – *not searching*, *searching*, and *partnered*. This meets assumptions (i) and (ii). Social Role was normally distributed for all the groups - “not searching” (Shapiro-Wilk’s test $p = .199$); “searching” (Shapiro-Wilk’s test, $p = .558$); and “partnered” (Shapiro-Wilk’s test, $p = .073$). There was homogeneity of variances, as assessed by

Levene's test for equality of variances ($p = .311$), thus meeting the assumption of homogeneity of variances.

Table 16. ANOVA Table of Social Role and Intimacy

Intimacy and Interpersonal Relations	<i>M</i>	<i>SD</i>	<i>F</i> (2, 50)	Sig	η^2
Not searching	13.00	10.13			
Searching	15.69	6.74	.351	.706	.014
Partnered	15.97	8.81			

The null hypothesis was not rejected: Social Role was not statistically significant for the different intimacy levels $F(2, 48) = .351, p = .706$. Effect size was small ($\eta^2 = 0.014$), indicating a small clinical significance. Stated another way, no matter a nursing trainee's intimacy status, they experienced Social Role challenges similarly.

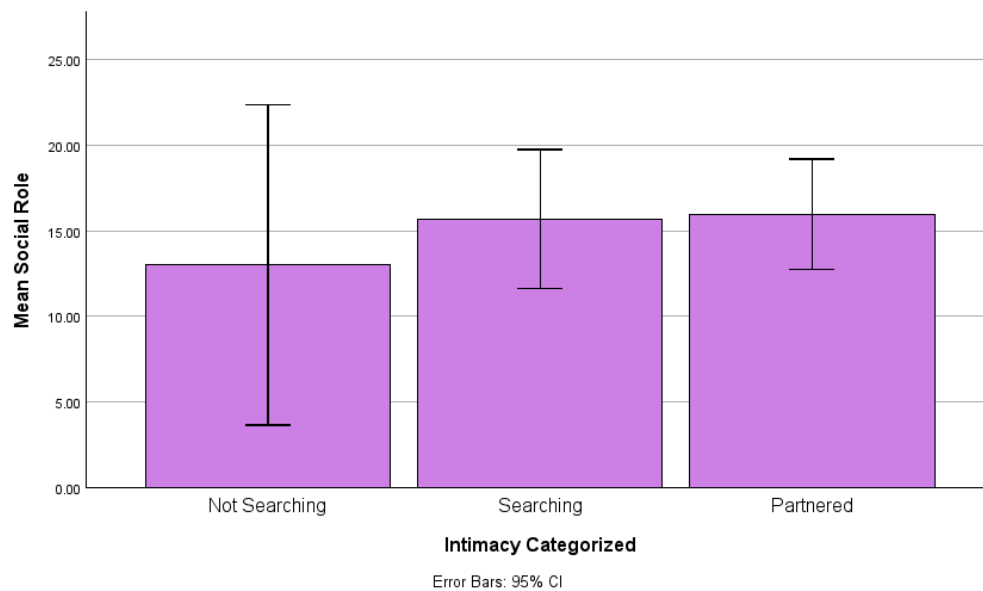


Figure 8: Simple Bar Mean of Intimacy and Social Role

The simple bar mean shows that those who reported their intimacy status as “not searching” had the least challenges with Social Role. Those who were “partnered” and “searching” appeared to have similar challenges in Social Role.

4.4.6 Hypothesis 6: There is no statistically significant mean score Symptoms

Distress differences, Interpersonal Relations differences and Social Role differences based on gender.

Symptoms Distress and Gender

Almost all the assumptions in undertaking ANOVA analysis apply to performing an independent samples t-test. However, in the independent samples t-test, the group is restricted to just two categorical groups and not more like in ANOVA. While the partial eta squared is used as a measure of effect size in ANOVA, in independent samples t-test, the measure of effect size is the Cohen's *d* (Cohen, 1990). General guidelines followed for the interpretation of Cohen's *d* are as follows: 0.2 = small effect; 0.5 = moderate effect; and 0.8 = large effect (Daines, n.d.). In SPSS, three measures of effect size are provided – Cohen's *d* (Cohen's *d*), Hedges' correction (Hedges' *g*), and Glass's delta (Glass's Δ). It is recommended that Hedges' *g* is used when working with uneven sample sizes and sample sizes less than 20. However, Hedges' *g* and Cohen's *d* are approximately equal for samples above 20, because they have the capacity to accommodate variances which may be introduced in smaller samples (Lin & Aloe, 2021).

Table 17. Gender differences in Symptoms Distress

	<i>M</i>	<i>SD</i>	<i>t</i> (48)	<i>p</i>	Cohen's <i>d</i>
Symptoms					
Distress			-.896	.187	-.289
Male (<i>n</i> = 13)	32.46	16.78			
Female (<i>n</i> = 37)	36.40	12.45			

An independent sample t-test was used to understand the research hypothesis on gender differences in Symptoms Distress. The dependent variable, Symptoms Distress, was measured on a continuous scale with two unique categorizations as independent variables – *female* and *male*. This meets assumptions (i) and (ii). There was homogeneity of variances, as assessed by Levene’s test for equality of variances ($p = .118$), thus meeting the assumption of homogeneity of variances.

The null hypothesis was not rejected: There was no statistically significant mean difference in Symptoms Distress [$t(48) = -.896$; $p = .187$; Cohen’s $d = .289$] based on gender ($M_{\text{male}} = 32.46$; $SD = 16.78$; $n = 13$. $M_{\text{female}} = 36.40$; $SD = 12.45$; $n = 37$). Thus, both females and males experienced Symptoms Distress similarly. There was small effect size, indicating a minimal clinical significance.

Interpersonal Relations and gender

An independent sample t-test was used to understand the research objective on gender differences in Interpersonal Relations. The dependent variable, Interpersonal Relations, was measured on a continuous scale with two unique categorizations as independent variables – *female* and *male*. This meets assumptions (i) and (ii). There was homogeneity of variances, as assessed by Levene’s test for equality of variances ($p = .632$), thus meeting the assumption of homogeneity of variances.

Table 18. Gender differences in Interpersonal Relations

	<i>M</i>	<i>SD</i>	<i>t</i> (51)	<i>p</i>	Cohen’s <i>d</i>
Interpersonal Relations			.475	.319	.148
Male ($n = 14$)	18.50	9.16			
Female ($n = 39$)	17.10	9.55			

The null hypothesis was not rejected: There was no statistically significant mean difference in Interpersonal Relations [$t(51) = .475$; $p = .319$; Cohen’s $d = .148$]

based on gender ($M_{\text{male}} = 18.50$; $SD = 9.16$; $n = 14$. $M_{\text{female}} = 17.10$; $SD = 9.55$; $n = 39$). Thus, both females and males experienced Interpersonal Relations similarly. There was small effect size, indicating a minimal clinical significance.

Social Role and Gender

An independent sample t-test was used to understand the research objective on gender differences in Social Role. The dependent variable, Social Role, was measured on a continuous scale with two unique categorizations as independent variables – *female* and *male*. This meets assumptions (i) and (ii). There was homogeneity of variances, as assessed by Levene's test for equality of variances ($p = .892$), thus meeting the assumption of homogeneity of variances.

Table 19. Gender differences in Social Role

	<i>M</i>	<i>SD</i>	<i>t</i> (49)	<i>p</i>	Cohen's <i>d</i>
Interpersonal Relations			.945	.175	.312
Male ($n = 12$)	17.50	7.98			
Female ($n = 39$)	14.87	8.55			

The null hypothesis was not rejected: There was no statistically significant mean difference in Social Role [$t(49) = .945$; $p = .175$; Cohen's $d = .312$] based on gender ($M_{\text{male}} = 17.50$; $SD = 7.98$; $n = 12$. $M_{\text{female}} = 14.87$; $SD = 8.55$; $n = 39$). Thus, both females and males experienced Social Role similarly. There was small effect size, indicating a minimal clinical significance.

4.5 Discussion of results

In this section, the results gained from data collection are compared and contrasted with the literature that has been reviewed in a way that contributes to the discourse on empirically supported interventions for individuals. The results are discussed in light of the hypotheses and theoretical framework for the study.

This research was guided by six hypotheses which were tested on data collected pre-test (pre-intervention) and post-test (post-intervention). Each of the hypothesis was tested using the appropriate statistical tool in SPSS (Field, 2018) and the results were presented according to the American Psychological Association's laid down reporting protocols and the University of Education Winneba's specified formats. Below is a discussion on each of the hypotheses.

The hypothesis that there is no significant mean score symptoms distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups was tested using a dependent t-test. The results rejected the null hypothesis, indicating a statistically significant gain score between pretest and post-test with a large clinical significance (Cohen's $d = .941$). This suggests that the interventions were effective in reducing symptoms distress in trainee nurses. To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable. The outcome saw CBT being the most effective, followed by SFBT.

This result is collaborated by Whitfield (2010) who found CBT effective reducing low psychological functioning especially for anxiety and depression, highlighting that CBT can be delivered not only individually but also in group settings. This agrees with the current research to the extent that it also employed group therapy approach to providing the intervention and the gains in the current research were also significant. The evidence base for individual CBT is more extensive, but group CBT also showed significant benefits.

Another study, a meta-review of systematic reviews and panoramic meta-analysis done by Fordham et al. (2021) confirms the effectiveness of CBT. They evaluated the effectiveness of CBT across various conditions, populations, and contexts. The study

found that CBT produced a modest benefit across conditions on health-related quality of life (standardized mean difference 0.23; 95% confidence intervals 0.14–0.33).

Furthermore, the results of several randomized controlled trials by Nakao et al (2021) on stressful conditions among clinical and general populations indicated that CBT was effective for a variety of challenges that fall under Symptom Distress, Social Role, Interpersonal Relationship and Risk related challenges. For example, anxiety disorder, attention deficit hypersensitivity disorder, bulimia nervosa, depression, and hypochondriasis, which fall under Symptom Distress in the current study were alleviated by CBT. Also, physical conditions (for example, chronic fatigue syndrome, fibromyalgia, irritable bowel syndrome, breast cancer) and behavioural problems (for example, antisocial behaviours, drug abuse, gambling, overweight, smoking), which could affect Social Role and Interpersonal Relationships and pose Risk to psychological functioning, saw improvement, at least in the short term (Nakao et al., 2021).

Comparing SFBT to CBT in a meta-analysis which reviewed the effectiveness of SFBT and CBT and other control conditions, Kim et al (2019) found SFBT more effective in fewer sessions. The study found that SFBT had similar effect sizes to CBT but achieved these outcomes in fewer sessions, suggesting that SFBT can be a more efficient approach for certain psychological problems. It also means that SFBT could be a better short-term option for interventions.

Another meta-analysis by Hsu et al (2021) focused on the effectiveness of SFBT for psychosocial problems in children and adolescents compared to control conditions. The results indicated that SFBT was more effective for externalizing problems (like Social Role and Interpersonal Relationship issues) than CBT, with a small to medium effect size. However, for internalizing problems (which falls under Symptom Distress

and Risk challenges in the current study), the effect size was smaller and not statistically significant.

All the above research finding support the recent study in that they prove the efficacy of CBT and SFBT to generally reduce symptom distress to various extents. Specifically in terms of which is more effective, the recent research showed that CBT more effectively helps reduce symptom distress than SFBT, whereas some of the other researches such as by Hsu et al (2021) and Kim et al (2019) show that SFBT was more effective for externalizing problems in adolescents and required fewer sessions to bring about significant change.

The hypothesis that there is no significant mean score interpersonal relations differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups was rejected, indicating a difference in interpersonal relations scores between pre-test and post-test. What that meant is that there was a statistically significant gain score between pretest and post-test with a moderate clinical significance (Cohen's $d = .471$). Post-hoc tests using Tukey indicated that the mean difference occurred between SFBT and Placebo (Mean difference = -15.21 ; SE = 2.71 ; $p < .001$) as well as CBT and Placebo (Mean difference = -12.01 ; SE = 2.67 ; $p < .001$). That suggested that SFBT was found to have the greatest effect in reducing conflicts in interpersonal relations.

To understand this outcome in relation to what other researchers have done, other related and comparative studies were reviewed. One was a meta-analysis of randomized studies by Franklin et al (2024) that was conducted with outcome domains that reflect psychological functioning (including depression, anxiety, behavioural health, health and wellbeing, family functioning, and psychosocial adjustment). Overall, statistically significant and medium treatment effect sizes were found across all the outcome domains. Franklin et al (2024) drew the conclusion that SFBT is an

effective intervention. Its domains of effectiveness included family functioning and psychosocial outcomes. These domains of the outcome tap into the Interpersonal Relationship challenges that this current study researched into.

Although, the researcher has not found a research that specifically compares the effectiveness of SFBT and CBT in the interpersonal relations domain, there are countless studies that compare the effectiveness of the two therapies generally. Kim et al. (2019) did a meta-analysis that reviewed the effectiveness of Solution-Focused Brief Therapy (SFBT) compared to Cognitive Behavioural Therapy (CBT) and other control conditions. The study found that SFBT had similar effect sizes to CBT but achieved these outcomes in fewer sessions. This makes SFBT a briefer and preferable treatment choice since it is timesaving. Additionally, the current research shows that it is a more effective treatment for issues bordering on interpersonal relations.

From the work of Hsu et al (2021) on the effectiveness of SFBT for behaviour problems in children and adolescents compared to control conditions, it emerged that SFBT was more effective for externalizing behaviours than CBT, with a small to medium effect size. Externalizing behaviours in mental health are actions or symptoms that manifest outwardly, impacting others or the environment. These behaviours are typically visible and observable, unlike internalizing symptoms, which are felt internally. These behaviours will have a bearing on interpersonal relations. Thus, this finding agrees with the current study's outcome that SFBT was found to have the greatest effect in reducing conflicts in interpersonal relations.

Hypothesis three assumes that there will be no significant mean score Social Role differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups. This null hypothesis was rejected because there was a statistically significant gain score between pretest and post-test. There was a moderate clinical significance

(Cohen's $d = .416$), indicating that clinically, the intervention was moderately effective in reducing conflicts in social role for trainee nurses. In other words, therapy had the ability to reduce conflict in social role from 15.60 (SD = 8.46) at pre-test to 12.04 (SD = 8.06) at post-test. Therefore, null hypothesis that there is no difference in Social Role between pre-test and post-test is rejected.

Social role conflicts refer to situations where individuals struggle to fulfil the multiple roles they hold, such as being a parent, employee, or student. Role conflict exists when two or more social roles overlap and are incompatible (Creary & Gordon, 2016) resulting in internal strains. These conflicts can lead to stress, emotional exhaustion, and decreased overall well-being. The study revealed that the trainee nurses did have social role conflicts, and that therapy was useful in resolving the conflicts.

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable. At post-test, results indicated that CBT had the greatest effect in reducing conflicts in Social Role, followed by SFBT. The difference was, however, quite minimal.

Although Kim et al. (2019) were not directly comparing the effectiveness of SFBT and CBT in the Social role domains, they did a meta-analysis that reviewed the general effectiveness of Solution-Focused Brief Therapy (SFBT) compared to Cognitive Behavioural Therapy (CBT) and other control conditions. The study found that SFBT had similar effect sizes to CBT but achieved these outcomes in fewer sessions. This makes SFBT a briefer and preferable treatment choice since it is timesaving. However, the current research shows that CBT is a more effective treatment for issues bordering on social role conflicts.

Another study that corroborates the current research to some extent is from the work of Hsu et al (2021) on the effectiveness of SFBT for behaviour problems in children and adolescents compared to control conditions. They reported that SFBT was more effective for externalizing behaviours than CBT, with a small to medium effect size. Externalizing behaviours in mental health are actions or symptoms that outwardly affect others or the environment. These behaviours are usually visible and observable, unlike internalizing symptoms that are experienced inwardly. Internalizing behaviours could have a bearing on social role conflicts since these role conflicts are internal strains that can lead to stress, emotional exhaustion, and decreased overall well-being. Hsu et al (2021) found that SFBT had the greatest effect in reducing conflicts in externalizing than internalizing behaviours. This reflects well with this current study, confirming that CBT was best at resolving internalizing conflicts like social role conflicts.

Hypothesis four explored Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups. Risk factors that are assessed on the OQ45.2 scale used for this study include suicide ideation, substance use and violence/anger. These are explored by items 8, 11, 32 and 44 on the scale.

There was a statistically significant gain score between pre-test and post-test. Therefore, the null hypothesis was rejected that there is no difference in Risk between pre-test and post-test. Also, there was a moderate clinical significance (Cohen's $d = .597$), indicating that clinically, the intervention was moderately effective in reducing incidence of Risk in trainee nurses. This means that therapy had the ability to reduce the incidence of risk from 8.59 (SD = 3.60) at pre-test to 5.94 (SD = 4.16) at post-test.

To understand which type of intervention produced the effect, a one-way ANOVA was performed with each of the groups as an independent variable. At post-test, results indicated that CBT had the greatest effect in reducing incidents of Risk.

A related study was carried out by Akbaş and Yiğitoğlu (2022) to evaluate the effect of a Solution-Focused approach on anger management and violent behaviour in adolescents. The study was an experimental and randomized controlled trial including pre-test and post-test measurements and control group. The sample experimental (n = 24) and control groups (n = 24) of the study consisted of 48 students. A 7-session programme of anger management and prevention of violent behaviour based on a Solution-Focused approach was applied to the experimental group. There were statistically significant differences between pre-test and post-test and follow-up scores in trait anger, anger in, anger out, anger control sub-dimensions scores of the experimental and control groups. The researchers concluded that solution-oriented approach programmes should be used by psychiatric nurses to provide anger management and reduce violence tendencies in adolescents. In this study, a comparison was not made between SFBT and another therapy approach. It was stand-alone SFBT intervention.

Another study by Spilsbury (2012) that showed the effectiveness of Solution-Focused Brief Therapy (SFBT) was conducted on an alcohol-dependent patient with a comorbid personality disorder. In addition to SFBT, the patient was prescribed acamprosate to assist with abstinence from alcohol and fluoxetine for depression. After three sessions of SFBT, held a month apart, the patient shared that he had successfully stayed away from alcohol. His depression, previously severe according to the Depression Anxiety Stress Scale that was used by Spilsbury, had improved to a normal range. He also noted that the dark thoughts, which used to trouble him when

sober, had become less frequent and intense. These positive changes were still present a year after the treatment ended.

A meta-analysis looked at how effective SFBT and CBT are in addressing behaviour issues in children and teens, compared to those who didn't receive either treatment (Hsu et al., 2021). The findings showed that SFBT worked better than CBT for managing outward behaviours, with a small to moderate impact. However, when it came to internal issues like anxiety or depression, the effect of SFBT was smaller and didn't reach statistical significance. Since suicide ideation, anger, substance use, and violence can present as both externalizing and internalizing behaviours depending on the context and individuals, we can say that both SFBT and CBT will be effective in managing them. However, it is evident that if the issues manifest as externalizing, SFBT will be more suitable and if they are internalizing behaviour then CBT will be more suitable.

Hypothesis five examined Symptoms Distress differences, Interpersonal Relations differences and Social Role differences based on intimacy status. Each of these is discussed below:

Symptoms Distress differences based on intimacy status

On Symptoms Distress differences based on intimacy status, it emerged that no matter a nursing trainee's intimacy status, they experienced Symptoms Distress similarly. This is collaborated by other research findings. For instance, A longitudinal study by Sonmez et al (2023) examined psychological functioning among nursing students over a period of four years. The study found significant increases in psychological distress and depressive symptoms over the course of their education, highlighting the pervasive nature of low psychological functioning in nursing

students. This aligns with the current study's findings that symptom distress is a common experience among nursing students, irrespective of their intimacy status.

Another study by El-Sayed et al. (2024) investigated the impact of the COVID-19 pandemic on nursing students' psychological functioning. The study revealed a significant correlation between fear of COVID-19 and depressive symptoms, which was mitigated by adaptive coping strategies. This underscores the importance of coping mechanisms in managing psychological distress, a factor addressed in the current study by the interventions provided relevant to treating symptom distress in the nursing students.

A systematic review by Chaabane and colleagues (2021) explored perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa. The review identified high levels of perceived stress and common stressors such as workload and academic pressure. The review also emphasized the role of coping strategies in managing stress, confirming that interventions to improve coping mechanisms could reduce stress levels. This supports the notion that while intimacy status may not significantly impact symptom distress, other factors such as coping strategies play a crucial role in managing distress.

In summary, the current study's findings are consistent with previous research indicating that nursing students experience high levels of symptom distress regardless of their intimacy status. However, factors such as coping strategies and external stressors play a significant role in managing this distress. This lends credence to the present study's use of SFBT and CBT to provide intervention to the students experiencing symptom distress, that they are effective approaches.

Interpersonal Relations differences based on intimacy status

Regarding Interpersonal Relations differences based on intimacy status, the study revealed that those who reported their intimacy status as “not searching” had the highest challenges with Interpersonal Relations, followed by those who were “partnered”. The group with the least Interpersonal Relations challenges were those who were “searching”. Interpersonal Relations was, however, not statistically significant for the different intimacy levels.

This is in line with Aaron and Mashek (2004) who examined intimacy as an interpersonal process and found that individuals who are not actively seeking relationships often experience higher levels of interpersonal distress due to a lack of social support and connection. This aligns with the current study's findings that those not searching for intimacy face the most challenges in interpersonal relations.

The results of this study also agreed with Rusu et al. (2023) who investigated the role of positive emotions in couple relationships and found that positive emotions significantly predict intimacy and relationship quality. This suggests that those who are actively searching for a partner may experience better interpersonal relations due to the presence of positive emotions and social support.

A systematic review by Chaabane et al. (2021) explored perceived stress and coping strategies among nursing students and found that students who are partnered or actively seeking relationships tend to have better coping mechanisms and lower stress levels. This supports the notion that those who are searching for intimacy may have better interpersonal relations due to effective coping strategies.

In conclusion, the current study's findings are consistent with previous research indicating that individuals not searching for intimacy face the most challenges in interpersonal relations. However, those who are actively seeking

relationships or are partnered may experience better interpersonal relations due to the presence of positive emotions and effective coping strategies. The researcher explored the impact of these factors on interpersonal relations and SFBT and CBT were employed as effective interventions for individuals at different intimacy levels.

Social Role differences based on intimacy status

Social Role was not statistically significant for the different intimacy levels. However, there was a small clinical effect that showed that those who reported their intimacy status as “not searching” had the least challenges with Social Role. Those who were “partnered” and “searching” appeared to have similar challenges in Social Role.

This is consistent with Adamczyk et al. (2022) who examined intimacy crisis resolution and its associations with romantic loneliness in young adults. The study found that individuals who transitioned from single to partnered status experienced decreased romantic loneliness, suggesting that those not searching for intimacy as a result being in a relationship may have fewer social role challenges due to stable social connections. Another study by investigated the association between individual-level socioeconomic factors and intimate partner violence victimization (Reyal et al., 2024). The study highlighted the importance of social roles and socioeconomic factors in intimate relationships, indicating that those who are partnered or searching may face similar challenges due to the complexities of maintaining intimate relationships.

A systematic review by Staab et al. (2024) explored social protection for gender equality, resilience, and transformation. Their findings emphasized the role of social roles in promoting gender equality and resilience, suggesting that those who are partnered or searching may face similar challenges due to the need for social support and protection.

In summary, the current study's findings on this objective are consistent with previous research indicating that individuals not searching for intimacy face the least challenges in social role, while those who are partnered or searching face similar challenges. However, social role was not statistically significant for the different intimacy levels, suggesting that other factors may play a more significant role in determining social role challenges.

Symptoms Distress differences based on gender

The research goal investigating symptoms distress based on gender found no statistically significant mean difference between the sexes. This indicates that both females and males experienced symptoms distress in an equal manner. The small effect size suggests that there is not much clinically relevant difference between the two when it comes to symptoms distress. That is, if there is any difference, it is not much of a difference at all. In a study which may be comparable to the present one, The result of this study is consistent with Matud et al. (2024) who found that more women than men reported higher levels of psychological distress. However, when it came to the prevalence of whether psychological distress was experienced or not, the men and women were equally likely to be in the distressed group. In still another study, Cao et al. (2024) examined men and women who were part of the transgender community and were living in China at the time of the COVID-19 pandemic. The research showed how community connectedness and pride act as protective factors, insinuating that social support might be a potent balm for the distressed, no matter one's gender.

Yet another systematic review published by Arcand et al (2023) in *Frontiers in Psychology* added clarity to this picture. It explored the possible roles that biological sex and socially constructed gender might play in accounting for the observed

differences in the prevalence of certain mental disorders between females and males (Arcand et al., 2023). Overall, this review revealed only minimal, if any, clinically significant gender differences in the manifestation of symptoms of psychological distress pre-pandemic, during the pandemic, and post-pandemic.

In essence, whether we are looking across the lifespan or within specific developmental stages, both females and males experience similar levels of symptoms distress.

Interpersonal Relations differences based on gender

The research objective exploring interpersonal relations based on gender revealed no statistically significant mean difference, indicating that both females and males experienced interpersonal relations similarly.

This agrees with a study by Zhang et al. (2023) who investigated gender differences in cognitive and affective interpersonal emotion regulation in couples found that while there were gender differences in cognitive strategies, both genders showed similar levels of affective engagement. This reflects well with the current study's findings that gender does not significantly impact interpersonal relations.

Another finding that supports this study is that of Chen and Zhang (2024) who conducted a study into gender differences in relation to gender role attitudes and happiness. They found that gender equality had different impacts on happiness for men and women, but did not show significant differences in interpersonal relations, supporting the notion that gender does not play a major role in interpersonal challenges.

The work by researchers Shin and Park (2023) who explored gender differences in social networks and physical and mental health also agrees with the findings of this study. Their study found that while there were some gender differences

in social network patterns, the overall impact on interpersonal relations was similar for both genders.

This brings us to the conclusion that the current study's findings are in line with previous research that indicates that gender does not significantly influence interpersonal relations. Both females and males experience similar levels of interpersonal relations, with minimal clinical significance.

Social Role differences based on gender

The research hypothesis exploring social role based on gender revealed no statistically significant mean difference, indicating that both females and males experienced social role similarly. The small effect size suggests minimal clinical significance.

Although if a person is not experiencing romantic loneliness, it does not automatically suggest that one is not struggling with other social roles, yet it remains that those not searching for intimacy may have fewer social role challenges due to stable social connections (Adamczyk et al., 2022). This came from research by Adamczyk et al (2022) that explored intimacy crisis resolution and its associations with romantic loneliness in young adults. They found that individuals who transitioned from single to partnered status experienced decreased romantic loneliness.

Another study that investigated the association between individual-level socioeconomic factors and intimate partner violence victimization, highlighted the importance of social roles and socioeconomic factors in intimate relationships (Reyal et al., 2024). It concluded that those who are partnered or searching may face similar role challenges due to the complexities of maintaining intimate relationships.

A systematic review by Staab and colleagues (2024) explored social protection for gender equality, resilience, and transformation. The review suggested that those who are partnered or searching may face similar challenges due to the need for extended social support and protection. This is not limited to a particular gender.

Supporting the current finding is another research by Akotia and Anum (2015) that examined gender gaps and disparity in education, poverty, health, and political participation in Ghana. They found that while gender gaps exist, the overall impact on social roles was similar for both genders. The bottom line of all these, therefore, is that, both females and males experienced social role challenges similarly.

4.6 Connection of results to theoretical framework

The results of the study showed that both SFBT and CBT were effective in improving the psychological functioning of the trainee-nurses. In effect, it gives credence to the choice of the undergirding theories for the study.

The research was anchored on cognitive behaviour theory (J. S. Beck, 2011; Champion & Skinner, 2008; Ellis, 1975; Skinner, 1965; J. B. Watson, 1913) and Solution-Focused theory (De Shazer, 1985; de Shazer et al., 2021). These theories are intertwined. Specifically, both are focused on behaviour change and on altering the client's perspective on life, but they differ in the use of techniques and their view of the client.

Solution-Focused Theory (SFT) focuses on the present, what is working and how to use the clients' strengths to quickly resolve the issues. This perspective suggests that problems and solutions are not inherent in individuals but are constructed through social discourse (De Shazer et al., 2007). In other words, behaviours are mostly externalized.

Cognitive Behaviour Therapy (CBT) is grounded in the integrated theories of cognitive and behavioural approaches. The model posits that dysfunctional thinking is the root cause of emotional and behavioural disturbances and that behaviours are learned and maintained through reinforcement and modelling (Bandura, 1977; Skinner, 1965, p. 65). In other words, to the cognitive behaviour theorist, behaviours are mostly internalized. Thus, the cognitive behaviour therapist will dig deeper into the inner world of the client and then try to help modify behaviour.

These theories were used as undergirding theories because the researcher conceptualises that the trainee-nurses will develop psychopathologies first, as any other human being will but also because of the nature of the training and other demands on their mental health. The literature has shown that the therapies formulated from each theory are also effective in reducing mental health challenges (Akbaş & Yiğitoğlu, 2022; de Shazer et al., 2021; Mansell, Carey, & Tai, 2013; Team, 2023)

The results from the objectives have indicated that no matter what a trainee-nurse's intimacy status is, they experienced Symptoms Distress, Interpersonal Relationship, Risk and Social Role challenges similarly with gender making no difference either. Put another way, each of the trainee-nurses that were found to have challenges in the various domains under study had it irrespective of whether they were single, in a relationship or were married. Again, the challenges were experienced by both the male and female trainee-nurses similarly. So, the theoretical framework from the solution focused theory and cognitive behaviour theory clearly supported the results. This is because they posit that the way one socially constructs an issue or how one thinks about and internalizes it will determine the problem and how it will be resolved.

The results from all four hypotheses also show that therapy was both statistically and clinically significant in reducing poor psychological functioning in the trainee-nurses. Solution Focused Behaviour Therapy (SFBT) more significantly reduced interpersonal relationship challenges, whilst Cognitive Behaviour Therapy (CBT) had the greatest effect in reducing incidents of symptom distress, risk and social role challenges. What all these means is that the chosen theory with their therapies (theoretical framework) were appropriate in supporting the study.

4.7 Summary of the chapter

This chapter outlined the limitations that arose from collecting data and the overall conduct of this research. It laid out the results as they have been analyzed from the data collected using various statistical tools. The chapter also discussed the results according to the set objectives and hypotheses that anchored the study, connecting the findings to literature. The chapter finally connected the results to theoretical framework that underpinned the study, drawing the conclusion that the framework was appropriate and fit for purpose.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.0 Introduction

The study set out to assess the effect of therapy (cognitive behavioural therapy and solution-focused brief therapy techniques) on the psychological functioning of trainee-nurses in the domains of symptom distress, social role, risk and interpersonal relationship. This chapter summarizes the findings from the research, draws conclusions and makes recommendations and suggestions both generally and for future research, based on the outcomes of the study.

5.1 Summary of the study

The present study investigated the effectiveness of therapy on the psychological functioning of trainee-nurses. It compared the ability of the Solution focused brief therapy and cognitive behaviour therapy to improve psychological functioning among the trainee-nurses. The study was guided by four objectives and six hypotheses which were stated in the null form.

Literature as recent as 2024 were reviewed for the study, although there were older but relevant literature too. Themes covered by the review included psychological functioning and the OQ45.2 scale, status of students' psychological functioning worldwide, in the African region and locally, Symptom Distress and Intimacy, Interpersonal Relations differences based on intimacy, Social Role differences based on Intimacy, Symptom Distress differences based on gender, Gender disparity in anxiety and depression as psychological functioning factors, issues of psychological functioning among emerging adults in health professions amongst other themes.

The research utilized a randomized experimental design with imperfect control group. This means that it was not possible to provide a completely water-tight non-interaction of the participants since they lived in the real world and could not be confined after each session of therapy, although the confidentiality clause was put in place. With this pretest-posttest randomized control group design, sixty participants were purposively chosen based on their OQ45.2 scores and were randomly assigned to experimental and control groups. In all, there were eight sessions of therapy.

Analysis was done using rigorous SPSS statistical tool and specifically ANOVA and independent t-test after satisfying all the underlying assumptions. The findings of the research yielded several significant insights. No matter the trainee-nurses' gender categorization, Symptoms Distress, Interpersonal Relationship, Risk and Social Role challenges similarly experienced. Regarding intimacy status, whether they are single and searching for a partner, single but not searching for a partner, in a relationship but not yet married or are married, did not make a difference in the trainee-nurses' psychological functioning. Seventy-five percent (75%) of the trainee-nurses were females. With an average age of 19 years, the trainee-nurses was 19 years, we can conclude that most of them were emerging adults. More than half of the population (58%) were in relationship. The therapies were statistically and clinically significant in reducing poor psychological functioning, meaning that therapy improved overall well-being in the four domains. Solution-focused Brief Therapy more significantly reduced Interpersonal Relationship challenges, whilst Cognitive Behaviour Therapy had the greatest effect in reducing incidents of Symptom Distress, Risk and Social Role challenges. The following are the listings of the findings.

5.2 Summary of findings

The analysis revealed foremost that mental health challenges do exist among the trainee-nurses and that both Solution focused brief therapy, and the cognitive behaviour therapy were effective in reducing symptoms distress, challenges in interpersonal relations and social role as well risk factors and that gender and intimacy statuses made no significant difference. Since SFBT does not seem to been extensively used and researched into in Ghana, these findings are very key in future studies.

Here is a summary of the major findings per the research hypotheses that guided the study:

Finding 1: In treating issues of symptoms distress, CBT proved to produce greater effectiveness.

The first hypothesis was that there is no significant mean score Symptoms Distress differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups. This was rejected by the findings, meaning that there were significant mean scores differences between the pretest and posttest scores. In other words, the intervention brought about changes in the recipients.

Although both therapies showed effectiveness in treating issues of symptoms distress, CBT proved to produce greater effectiveness. In effect, a practitioner may defer to the use of CBT when dealing with issues bordering on anxiety, depression, trauma, psychotic symptoms and such diagnosis among trainee-nurses.

Finding 2: In treating issues of interpersonal relations, SFBT proved to produce greater effectiveness.

The second hypothesis was that there will be no significant mean score Interpersonal Relations differences between pre-test and post-test scores in CBT,

SFBT, and Placebo groups. This was proved otherwise, showing that the interventions were effective, more so SFBT in treating Interpersonal Relationship issues.

Finding 3: In treating social role conflicts, CBT proved to produce better results.

The third hypothesis was that there will be no significant mean score Social Role differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups. However, the two therapeutic approaches did show effectiveness in treating social role conflicts, but CBT proved to produce better results. What this means is that a practitioner may want to the use of CBT when dealing with issues in the areas of work-life balance, school performance, household management, parenting and any other role one must play that may interfere with one's optimum psychosocial functioning as a trainee-nurse.

Finding 4: In treating issues of risk, CBT proved to produce greater effectiveness.

The fourth hypothesis was that there will be no significant mean Risk differences between pre-test and post-test scores in CBT, SFBT, and Placebo groups. Significant mean scores differences were, however, found between the pretest and posttest scores. In other words, the intervention brought about changes in the trainee-nurses.

Although both therapies showed effectiveness in treating issues of risk, CBT proved to produce greater effectiveness. In effect, a practitioner may resort to the use of CBT when dealing with risky behaviours in trainee-nurses. These behaviours include but are not limited to suicidal ideation, anger, substance use and other forms of violence.

Finding 5: Intimacy status made no statistically significant difference in psychological functioning but there was some notable effect size. Whether the trainee-nurses were single and “searching” for partners, or “not searching,” in a “relationship” or “married.” they all experienced Symptom Distress, Social Role, Interpersonal Relationship and Risk challenges similarly, although not the same way.

The fifth hypothesis was that there is no statistically significant mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences (psychological functioning variables) based on intimacy status and the finding agreed with this. It is worth noting, however, that although the mean scores were not statistically significant it does not mean that there was absolutely no effect:

Based on effect size, it came out that those “not searching” had the greatest interpersonal relations problems followed by those in “relationship” and those who were “married.” Those “searching” for a partner had the least interpersonal relations challenges.

In terms of Social Role, trainee-nurses “not searching” for a relationship had the least challenges with social role. Those who were “partnered (in relationship and married)” and “searching” appeared to have similar challenges in social role.

Finding 6: Gender made no significant difference in psychological functioning.

The sixth hypothesis was that there is no statistically significant mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences based on gender. This was proven, showing that whether male or female both experienced Symptom Distress, Social Role, Interpersonal Relationship and Risk challenges similarly.

Apart from the findings from the hypotheses, here are some other observations:

Gender imbalance:

Seventy-five percent of the trainee-nurses were females consolidating the perception that nursing is a female dominated profession.

Emerging adults:

The average age of the trainee-nurses was 19 years which means that most of them were emerging adults.

More trainee-nurses are in relationship:

It is instructive to note that more than half of the population (58%) were in relationship, which suggests that relationship issues could be an area of interest and concern for these groups of young people.

5.3 Implications for counselling

The findings from this research hold significant implications for counselling practice in Ghana, particularly within the context of mental health support for trainee-nurses. Below are some of the implications:

To begin with, since Solution-Focused Brief Therapy (SFBT) turned out to be more effective in treating interpersonal relations issues, that suggests that this approach is better suited for dealing with problems related to communication, intimacy, conflict, and social isolation. SFBT's strength lies in its goal-oriented and positive outlook, which helps clients focus on solutions rather than problems (Gingerich & Peterson, 2013). Counsellors should consider using techniques from SFBT when working with trainee-nurses who struggle with relationship issues, as it can facilitate rapid and effective improvements in their interpersonal interactions.

The superior effectiveness of Cognitive Behavioural Therapy (CBT) in treating symptoms distress highlights its utility as a primary intervention for conditions such as anxiety, depression, trauma, and psychotic symptoms. Literature supports the fact that CBT's structured approach and focus on changing negative thought patterns make it particularly effective for these diagnoses (Hofmann et al., 2012). Therefore, counselling practitioners working with trainee-nurses should defer to CBT for those showing signs of symptoms distress. This will ensure optimal outcomes.

Furthermore, the finding that CBT is also more effective in managing social role conflicts and risky behaviours such as suicidal ideation, anger, substance use, and violence shows its versatility. This aligns with previous research indicating that CBT's emphasis on skill-building and cognitive restructuring is beneficial across a range of behavioural and psychosocial issues (Butler et al., 2006). Counselling professionals should be trained in both CBT and SFBT to provide comprehensive mental health support that addresses the varied needs of trainee-nurses.

Moreover, the observations relating to gender imbalance and the prevalence of relationship issues among trainee-nurses indicate for psychological functioning issues, targeted interventions that consider these demographic factors may not be the focus. Embedding counselling services in nursing schools, developing peer-led mental health clubs, and normalizing help-seeking may reduce distress, improve interpersonal functioning, and mitigate risk behaviours. Counselling programmes should incorporate these insights to enhance the mental health and professional functioning of trainee-nurses.

5.4 Conclusion

Based on the analyses, it is clear that psychological functioning challenges are prevalent among trainee-nurses, and both Solution-Focused Brief Therapy (SFBT) and Cognitive Behavioural Therapy (CBT) have shown effectiveness in addressing symptoms distress, interpersonal relations, social role conflicts, and risk factors. This study is significant since it investigated multiple mental health factors and employed therapeutic interventions within a single research framework, particularly within the context of Ghana, where SFBT has not been extensively explored.

The findings indicate that CBT was more effective in reducing symptoms distress and social role conflicts, making it a strong recommendation for addressing issues such as anxiety, depression, trauma, and work-life balance among trainee nurses. On the other hand, SFBT showed greater effectiveness in improving interpersonal relations, suggesting its suitability for dealing with communication, intimacy, and social isolation challenges. Both therapies were beneficial in reducing risk behaviours too, but CBT had a slight advantage, especially in treating suicidal ideation, anger, and substance use. These insights provide valuable guidance for mental health practitioners in selecting appropriate therapeutic approaches for different mental health challenges faced by trainee-nurses.

5.5 Recommendations

The research findings carry important implications for counsellors, nursing educational institutions, the applied psychology industry, researchers and policy makers. The findings suggest that it is high time therapy for various client groups is research-led. Below are the details of the recommendations.

5.5.1 Recommendations for Counsellors in Nursing Training Colleges

1. CBT is recommended for treating Symptoms Distress challenges

Given the evidence that Cognitive Behavioural Therapy (CBT) produced greater effectiveness in reducing symptoms distress, it should be prioritised as the treatment of choice for trainee-nurses experiencing anxiety disorders, affective disorders, adjustment disorders, trauma and stress related illness (which are issues bordering on symptom distress). CBT's structured approach, well espoused by Judith S. Beck and Aaron T. Beck (2021), which emphasizes identifying and restructuring maladaptive thought patterns, aligns well with the needs of trainee-nurses who often face high stress and emotional demands in clinical training (Hofmann et al., 2012). Counsellors should be trained to apply CBT techniques such as cognitive restructuring, behavioural activation, and problem-solving to ensure optimal outcomes in this population.

2. SFBT is recommended for treating Interpersonal Relations issues

Solution-Focused Brief Therapy (SFBT) demonstrated superior effectiveness in addressing interpersonal relationship challenges. This makes it the preferred intervention for trainee-nurses struggling with marriage and family issues, communication, intimacy, conflict resolution, and social isolation. SFBT's strengths lie in its goal-oriented and positive outlook, which helps clients focus on solutions rather than problems (Gingerich & Peterson, 2013). Counsellors working with trainee-nurses should integrate SFBT techniques such as scaling questions, miracle questions, and exception-finding to foster rapid improvements in interpersonal functioning among trainee-nurses.

3. CBT is recommended for treating Social Role Conflicts

In this study, CBT proved to be more effective in managing social role conflicts, including challenges related to work-life balance, school performance, household management, and parenting. These conflicts often interfere with optimal psychosocial functioning among trainee-nurses. CBT's emphasis on skill-building, time management, and cognitive restructuring makes it particularly suitable for helping trainee-nurses navigate multiple roles without compromising their mental health (Butler et al., 2006). Counsellors should prioritize CBT interventions when addressing role-related stressors in trainee-nurses.

4. CBT is recommended for treating Risk Issues – Suicidal tendencies, anger, violence, substance abuse.

Risk behaviours such as suicidal ideation, anger, substance use, and violence were more effectively managed through CBT. This underscores the importance of CBT as the treatment of choice for trainee-nurses exhibiting risky behaviours. CBT's focus on behavioural regulation, coping skills, and cognitive reframing equips clients with practical tools to reduce harmful behaviours and enhance resilience. Counsellors should incorporate CBT-based risk management strategies into mental health programmes for trainee-nurses.

5. Consideration of variations in intimacy status

Although intimacy status did not yield statistically significant differences in psychological functioning, effect size analysis revealed notable variations. For example, trainee-nurses "not searching" for partners experienced greater interpersonal challenges, while those "searching" reported fewer difficulties. Counsellors should therefore pay attention to intimacy status when designing interventions, recognizing

that relationship dynamics can subtly influence psychological functioning. Tailored counselling approaches that acknowledge these differences may enhance effectiveness in addressing interpersonal and social role challenges in trainee-nurses.

6. Gender-Neutral Care

Findings from the study indicated no significant differences in psychological functioning between male and female trainee-nurses. This suggests that interventions should be gender-neutral, ensuring equal access to care and support. While nursing remains a female-dominated profession, counselling programmes should avoid gender bias and provide similar care to all trainee-nurses, focusing instead on individual psychological needs rather than gender distinctions.

5.5.2 Recommendations for Nursing training institutions

Nurses in training and in the field of practice play vital roles in the health delivery chain. Thus, it is very important for the trainee-nurses to be at their peak psychologically while in training to facilitate effective learning and practice under supervision. To achieve that, there is the need for regular assessment of their functioning and the provision of prompt professional help regarding their social roles, interpersonal relations and other psychological issues. The reason for this is that poor psychological functioning is likely to have spillover effects on the patients they work with as well as their colleagues, friends, and family (Li et al., 2020).

Moreover, due to the nature of trainee-nurses' routines, they may not have much time for extended therapies. Thus, a speedy case conceptualization, quick diagnosis of the problems and an effective choice of an efficient therapeutic approach for their issues will enhance their treatment. In the light of this the nursing training institutions should consider the following:

1. They should encourage psychological screening during the admission of new students. Then routinely, each student should be re-assessed. This will serve as a measure of early detection of psychological well-being and prompt treatment.
2. They should train the staff of the institution in mental health first aid so that each person can at least identify colleagues and students who might be experiencing psychological suffering.
3. The institutions can include basic counselling courses in their curriculum to prepare the students for identifying and early referral of cases.
4. The students' representative council (SRC) should form a peer counsellors' team that will see to basic challenges that their colleagues may be experiencing in order to nip the issues in the bud. They will refer if these cases are beyond their basic training.

5.5.3 Recommendations for Practitioners in general

- 1. Practitioners should aim at combining therapies, especially SFBT and CBT in their practice.**

The findings that CBT is particularly effective in reducing symptoms distress and risk behaviours such as suicidal ideation and substance use, while SFBT is more effective in addressing interpersonal relations challenges, suggest a combined approach could be beneficial. By providing access to both types of therapy, clients can receive personalized support that addresses their specific mental health needs, improving their overall well-being and professional performance.

2. Practitioners who lack knowledge in the use of SFBT and CBT should do well to hone on their skills in the use of these approaches.

Furthermore, every master's level Counselling professional, who has attended an accredited training institution and who is legally licensed is qualified and should be able to confidently provide services everywhere their services are needed including health training intuitions. And since this research has proven that SFBT and CBT are effective in improving psychological functioning among trainee-nurses, those professionals who are not well trained in the use of such approaches should do well to hone on their skills by taking courses in those therapies so they will be useful to such clients that may need them.

5.5.4 Recommendations for Policy Makers

1. Policies should prioritise support for trainee-nurses' optimum psychological functioning

Making policies that emphasize or prioritise the importance of mental health support in nursing education can help prepare trainee-nurses to manage stress and psychological issues more effectively. It seems that at the moment that training the professional to provide services is emphasized more than the mental health of the trainee-nurse.

2. There should be certification programmes in SFBT and CBT.

Also, the demonstrated effectiveness of both Solution-Focused Brief Therapy (SFBT) and Cognitive Behavioural Therapy (CBT) in reducing symptoms distress, interpersonal relations challenges, mental health risks, and social role conflicts should encourage Ghana Psychology Council and the Mental Authority to promote

standalone specialist training and certification programmes for practitioners in these therapies.

3. Regular psychological assessment and therapy should form part of the nursing training curriculum.

It will equally be a good idea for policy makers to consider incorporating regular mental health assessments and therapy sessions into the curriculum and professional development programmes for trainee-nurses.

4. There should be policy that makes funding readily available for further research into the utility of SFBT and CBT in the greater Ghanaian population.

Lastly, future policies should support funding for and further research into the use of SFBT and CBT within the Ghanaian context, particularly given the limited existing research on SFBT. This commitment to ongoing research and development will ensure that mental health interventions remain effective, culturally relevant, and responsive to the evolving needs of healthcare professionals in the country.

5.5.5 Suggestions for future Research

Here are some recommendations for future research to expand the scope of this current study:

- 1. Another study can be conducted to investigate the long-term effects of these therapies on mental health outcomes.** For example, a longitudinal study can be done with trainee-nurses from the first year until they complete the third year. That would provide valuable insights into their sustained impact and efficacy. Counselling Psychologists, who are already in the institutions, can take this up, since they are

already in the setting. They can start collecting data as soon as the students get to year one.

2. **Further research should also explore the underlying mechanisms that contribute to the effectiveness of SFBT and CBT.**

Understanding the specific elements of each therapy that drive positive outcomes can help refine therapeutic approaches and develop more targeted interventions. Qualitative research can be employed to investigate this. This will be a good research area for a Master's level or PhD level thesis.

3. **Comparative studies can also be done to examine the cost-effectiveness and feasibility of implementing these therapies in various healthcare settings**

as compared to not doing so. This can inform policymakers and healthcare administrators about the most efficient use of resources to support mental health among healthcare professionals. This can be done collaboratively by researchers in the universities that have health training programmes.

4. **Since not much research has been done on SFBT in Ghana, there is a need for more localized studies to validate the findings of this research**

and explore cultural factors that may influence the effectiveness of SFBT and CBT. Such studies can help tailor interventions to better meet the unique needs of trainee-nurses and other healthcare professionals in Ghana. Professional Counsellors from the associations can be intentional about using SFBT in counselling and document their findings to drive research.

REFERENCES

- Adamczyk, K., Park, J. Y., & Segrin, C. (2022). Patterns of intimacy crisis resolution and their associations with romantic loneliness in Polish and U.S. young adults. *Developmental Psychology*, *58*(8), 1600–1613. <https://doi.org/10.1037/dev0001371>
- Adamczyk, K., & Segrin, C. (2015). Perceived social support and mental health among single vs partnered Polish young adults. *Current Psychology*, *34*(1), 82–96. <https://doi.org/10.1007/s12144-014-9242-5>
- Ae-Ngibise, K., Cooper, S., Adiibokah, E., Akpalu, B., Lund, C., Doku, V., & The MHaPP Research Programme Consor. (2010). ‘Whether you like it or not people with mental problems are going to go to them’: A qualitative exploration into the widespread use of traditional and faith healers in the provision of mental health care in Ghana. *International Review of Psychiatry*, *22*(6), 558–567. <https://doi.org/10.3109/09540261.2010.536149>
- Akbaş, E., & Yiğitoğlu, G. T. (2022). The effect of solution-focused approach on anger management and violent behavior in adolescents: A randomized controlled trial. *Archives of Psychiatric Nursing*, *41*, 166–174. <https://doi.org/10.1016/j.apnu.2022.07.029>
- Akotia, C. S., & Anum, A. (2015). Gender, culture, and inequality in Ghana: An examination of sociocultural determinants of gender disparity. In S. Safdar & N. Kosakowska-Berezecka (Eds), *Psychology of Gender Through the Lens of Culture* (pp. 375–394). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-14005-6_18
- Al Maqbali, M., Madkhali, N., Gleason, A. M., & Dickens, G. L. (2023). Fear, stress, anxiety, depression and insomnia related to COVID-19 among undergraduate nursing students: An international survey. *PLOS ONE*, *18*(10), e0292470. <https://doi.org/10.1371/journal.pone.0292470>
- Almeida, D., Figueiredo, A. R., & Lucas, P. (2024). Nurses’ well-being at work in a hospital setting: A scoping Review. *Healthcare*, *12*(2), 173. <https://doi.org/10.3390/healthcare12020173>
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family*, *62*(4), 1269–1287. <https://doi.org/10.1111/j.1741-3737.2000.01269.x>
- Amato, P. R. (2014). The consequences of divorce for adults and children: An update. *Drustvena Istrazivanja*, *23*(1), 5–24. <https://doi.org/10.5559/di.23.1.01>
- American Psychological Association. (2019). *Stress in America: Stress and current events*. USA: Stress in America™ Survey. Retrieved from Stress in America™ Survey. website: <https://www.apa.org/news/press/releases/stress/2019/stress-america-2019.pdf>

- Arcand, M., Bilodeau-Houle, A., Juster, R.-P., & Marin, M.-F. (2023). Sex and gender role differences on stress, depression, and anxiety symptoms in response to the COVID-19 pandemic over time. *Frontiers in Psychology, 14*, 1166154. <https://doi.org/10.3389/fpsyg.2023.1166154>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Aron, A., & Mashek, D. J. (Eds). (2004). *Handbook of closeness and intimacy*. Mahwah, N.J: L.E. Associates, Publishers.
- Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., ... Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization World Mental Health Surveys. *Psychological Medicine, 46*(14), 2955–2970. <https://doi.org/10.1017/S0033291716001665>
- Badu, E., O'Brien, A. P., & Mitchell, R. (2018). An integrative review of potential enablers and barriers to accessing mental health services in Ghana. *Health Research Policy and Systems, 16*(1), 110. <https://doi.org/10.1186/s12961-018-0382-1>
- Balkin, R. S., & Kleist, D. M. (2017). *Counseling research: A practitioner-scholar approach*. Alexandria, VA: American Counseling Association.
- Bamgbose Pederson, A., Burnett-Zeigler, I., Fokuo, J. K., Wisner, K. L., Zumpf, K., & Oshodi, Y. (2020). Mental health stigma among university health care students in Nigeria: A cross-sectional observational study. *Pan African Medical Journal, 37*. <https://doi.org/10.11604/pamj.2020.37.5.24898>
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Barsky, A. J., Peekna, H. M., & Borus, J. F. (2001). Somatic symptom reporting in women and men. *Journal of General Internal Medicine, 16*(4), 266–275. <https://doi.org/10.1046/j.1525-1497.2001.00229.x>
- Battle, S., & Carty, D. (2022, October 6). Gendered Racism Among Women of Color. Retrieved 15 October 2024, from <https://blogs.cdc.gov/healthequity/2022/10/06/gendered-racism-among-women-of-color/>
- Beck, A. T. (1991). *Depression: Causes and treatment* (13. print). Philadelphia: Univ. of Pennsylvania Pr.
- Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond* (2nd ed). New York: Guilford Press.
- Beck, J. S., & Beck, A. T. (2021). *Cognitive behavior therapy: Basics and beyond* (Third edition). New York London: The Guilford Press.

- Beckstead, D. J., Hatch, A. L., Lambert, M. J., Eggett, D. L., Goates, M. K., & Vermeersch, D. A. (2003). Clinical significance of the Outcome Questionnaire (OQ-45.2). *The Behavior Analyst Today*, 4(1), 86–97. <https://doi.org/10.1037/h0100015>
- Bedrov, A., & Gable, S. L. (2023). Thriving together: The benefits of women’s social ties for physical, psychological and relationship health. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 378(1868), 20210441. <https://doi.org/10.1098/rstb.2021.0441>
- Bianchi, S. M., Sayer, L. C., Milkie, M. A., & Robinson, J. P. (2012). Housework: Who did, does or will do It, and how much does It matter? *Social Forces*, 91(1), 55–63. <https://doi.org/10.1093/sf/sos120>
- Brody, L. R., & Hall, J. A. (2010). Gender, emotion, and socialization. In J. C. Chrisler & D. R. McCreary (Eds), *Handbook of Gender Research in Psychology* (pp. 429–454). New York, NY: Springer New York. https://doi.org/10.1007/978-1-4419-1465-1_21
- Bryman. (2015). *Social research methods*. Oxford: Oxford university press.
- Bryman, A. (2016). *Social research methods* (Fifth Edition). Oxford ; New York: Oxford University Press.
- Burleson, S., Thomas, L., & DeBoor, S. (2022). Effective Interventions for Nursing Student Burnout: A Scoping Review. *Nurse Educator*. <https://doi.org/10.1097/NNE.0000000000001348>
- Butler, A., Chapman, J., Forman, E., & Beck, A. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review*, 26(1), 17–31. <https://doi.org/10.1016/j.cpr.2005.07.003>
- Cao, H., Zhou, N., Qiao, J., Liang, Y., Li, Y., Wu, S., ... He, J. (2024). Gender minority stressors and psychological distress among Chinese transgender and gender-diverse people: Pride as a protector and community connectedness as a compensator. *Psychology of Sexual Orientation and Gender Diversity*. <https://doi.org/10.1037/sgd0000776>
- Card, A. J. (2017). Moving beyond the WHO definition of health: A new perspective for an aging world and the emerging era of value-based care: Redefining health. *World Medical & Health Policy*, 9(1), 127–137. <https://doi.org/10.1002/wmh3.221>
- Carr, D., & Springer, K. W. (2010). Advances in families and health research in the 21st century. *Journal of Marriage and Family*, 72(3), 743–761. <https://doi.org/10.1111/j.1741-3737.2010.00728.x>

- Chaabane, S., Chaabna, K., Bhagat, S., Abraham, A., Doraiswamy, S., Mamtani, R., & Cheema, S. (2021). Perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa: An overview of systematic reviews. *Systematic Reviews*, *10*(1), 136. <https://doi.org/10.1186/s13643-021-01691-9>
- Champion, V. L., & Skinner, C. S. (2008). The health belief model. *Health Behavior and Health Education: Theory, Research, and Practice*, *4*, 45–65.
- Chaplin, T. M. (2015). Gender and emotion expression: A developmental contextual perspective. *Emotion Review*, *7*(1), 14–21. <https://doi.org/10.1177/1754073914544408>
- Chen, Y., & Zhang, X. (2024). Gender differences in relation of gender role attitudes and happiness—A mixed-methods research from China. *Frontiers in Psychology*, *15*, 1419942. <https://doi.org/10.3389/fpsyg.2024.1419942>
- Cherlin, A. J. (2020). Degrees of change: An assessment of the deinstitutionalization of marriage thesis. *Journal of Marriage and Family*, *82*(1), 62–80. <https://doi.org/10.1111/jomf.12605>
- Cheung, T., Wong, S., Wong, K., Law, L., Ng, K., Tong, M., ... Yip, P. (2016). Depression, Anxiety and Symptoms of Stress among Baccalaureate Nursing Students in Hong Kong: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, *13*(8), 779. <https://doi.org/10.3390/ijerph13080779>
- Chiappelli, M., Lo Coco, G., Gullo, S., Bensi, L., & Prestano, C. (2008). [The outcome questionnaire 45.2. Italian validation of an instrument for the assessment of psychological treatments]. *Epidemiologia E Psichiatria Sociale*, *17*(2), 152–161.
- Cholankeril, R., Xiang, E., & Badr, H. (2023). Gender differences in coping and psychological adaptation during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *20*(2), 993. <https://doi.org/10.3390/ijerph20020993>
- Cleeland, C. S., Gonin, R., Hatfield, A. K., Edmonson, J. H., Blum, R. H., Stewart, J. A., & Pandya, K. J. (1994). Pain and Its Treatment in Outpatients with Metastatic Cancer. *New England Journal of Medicine*, *330*(9), 592–596. <https://doi.org/10.1056/NEJM199403033300902>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). Hillsdale, N.J: L. Erlbaum Associates.
- Cohen, J. (1990). Things I have learned (so far). *American Psychologist*, *45*(12), 1304–1312. <https://doi.org/10.1037/0003-066X.45.12.1304>
- Colella, A., & King, E. B. (2018). *The Oxford handbook of workplace discrimination*. New York (N.Y.): Oxford university press.

- Collins, P. H., Da Silva, E. C. G., Ergun, E., Furseth, I., Bond, K. D., & Martínez-Palacios, J. (2021). Intersectionality as critical social theory. *Contemporary Political Theory*, 20(3), 690–725. <https://doi.org/10.1057/s41296-021-00490-0>
- Coombs, R. H. (1991). Marital status and personal well-being: A literature review. *Family Relations*, 40(1), 97. <https://doi.org/10.2307/585665>
- Craig, L., & Mullan, K. (2011). How mothers and fathers share childcare: A cross-national time-use comparison. *American Sociological Review*, 76(6), 834–861. <https://doi.org/10.1177/0003122411427673>
- Creary, S. J., & Gordon, J. R. (2016). Role conflict, role overload, and role strain. In C. L. Shehan (Ed.), *Encyclopedia of Family Studies* (1st edn, pp. 1–6). Wiley. <https://doi.org/10.1002/9781119085621.wbef012>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (Sixth edition). Los Angeles: SAGE.
- Curcio, F., González, C., Zicchi, M., Sole, G., Finco, G., Ez Zinabi, O., ... Martínez-Riera, J. (2022). COVID-19 Pandemic Impact on Undergraduate Nursing Students: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 19(14), 8347. <https://doi.org/10.3390/ijerph19148347>
- Da Silva, S. M., Alves, I. C. B., Peixoto, E. M., Rocha, G. M. A., & Nakano, T. D. C. (2016). Outcome Questionnaire (oq-45.2): Avaliação das propriedades psicométricas via modelo bifactor e tri. *Psico*, 47(4), 298. <https://doi.org/10.15448/1980-8623.2016.4.24600>
- Daines, R. (n.d.). LibGuides statistics resources: Partial eta squared. Retrieved 30 July 2024, from <https://resources.nu.edu/statsresources/eta>
- Davidson, J. E., Accardi, R., Sanchez, C., Zisook, S., & Hoffman, L. A. (2020). Sustainability and outcomes of a suicide prevention program for nurses. *Worldviews on Evidence-Based Nursing*, 17(1), 24–31. <https://doi.org/10.1111/wvn.12418>
- De Jong, P., & Berg, I. K. (2013). *Interviewing for solutions* (4th ed). Belmont, CA: Brooks/Cole, Cengage Learning.
- De Jonge, M., Bockting, C. L., Kikkert, M. J., Bosmans, J. E., & Dekker, J. J. (2015). Preventive Cognitive Therapy versus Treatment as Usual in preventing recurrence of depression: Protocol of a multi-centered randomized controlled trial. *BMC Psychiatry*, 15(1), 139. <https://doi.org/10.1186/s12888-015-0508-8>
- De Shazer, S. (1985). *Keys to solution in brief therapy* (1st ed). New York: W.W. Norton.
- De Shazer, S., Dolan, Y., & Korman, H. (2007). *More than miracles: The state of the art of solution-focused brief therapy*. New York: Haworth Press.

- de Shazer, S., Dolan, Y., Korman, H., Trepper, T., McCollum, E., & Berg, I. K. (2021). *More than miracles: The state of the art of solution-focused brief therapy* (classic). Classic edition. | New York, NY: Routledge, 2021.: Routledge. <https://doi.org/10.4324/9781003125600>
- DePaulo, B. (2013). Single in a society preoccupied with couples. In R. J. Coplan & J. C. Bowker (Eds), *The Handbook of Solitude* (1st edn, pp. 302–316). Wiley. <https://doi.org/10.1002/9781118427378.ch17>
- DePaulo, B., & Morris, W. L. (2005). Commentaries on: Singles in society and in science. *Psychological Inquiry*, *16*(2–3), 84–141. <https://doi.org/10.1080/1047840X.2005.9682919>
- Docrat, S., Besada, D., Cleary, S., Daviaud, E., & Lund, C. (2019). Mental health system costs, resources and constraints in South Africa: A national survey. *Health Policy and Planning*, *34*(9), 706–719. <https://doi.org/10.1093/heapol/czz085>
- Dolan, E. W. (2022, February 27). Ambivalence appears to play a key role in how attractive alternatives impact romantic relationships. Retrieved 2 October 2022, from PsyPost website: <https://www.psypost.org/2022/02/ambivalence-appears-to-play-a-key-role-in-how-attractive-alternatives-impact-romantic-relationships-62646>
- Dudovskiy. (2019). Positivism—Research methodology. Retrieved 20 January 2020, from Research-Methodology website: <https://research-methodology.net/research-philosophy/positivism/>
- Dupuis, H. E., & Girme, Y. U. (2024). “Cat Ladies” and “Mama’s Boys”: A mixed-methods analysis of the gendered discrimination and stereotypes of single women and single men. *Personality and Social Psychology Bulletin*, *50*(2), 314–328. <https://doi.org/10.1177/01461672231203123>
- Dush, C. M. K., & Amato, P. R. (2005). Consequences of relationship status and quality for subjective well-being. *Journal of Social and Personal Relationships*, *22*(5), 607–627. <https://doi.org/10.1177/0265407505056438>
- Dyrbye, L. N., Thomas, M. R., & Shanafelt, T. D. (2006). Systematic Review of Depression, Anxiety, and Other Indicators of Psychological Distress Among U.S. and Canadian Medical Students: *Academic Medicine*, *81*(4), 354–373. <https://doi.org/10.1097/00001888-200604000-00009>
- Eagly, A. H., & Wood, W. (2012). *Handbook of theories of social psychology*. (Vol. 2). Los Angeles, Calif.: Sage. <https://doi.org/10.4135/9781446249222>
- Ehlers, A., & Clark, D. M. (2000). *A cognitive model of posttraumatic stress disorder: Behaviour Research and Therapy*. (38), 319–345.
- Ellis, A. (1975). *Reason and emotion in psychotherapy* (8th ed). Secaucus, NJ: Stuart.
- El-Sayed, M. M., Ghazi, G. A., Kamal, M. A., & Khedr, M. A. (2024). Investigating fear, depressive symptoms and coping mechanisms among Egyptian nursing

- students amidst the covid-19 pandemic: A cross-sectional study. *BMC Nursing*, 23(1), 461. <https://doi.org/10.1186/s12912-024-02104-7>
- Enns, A., Eldridge, G. D., Montgomery, C., & Gonzalez, V. M. (2018). Perceived stress, coping strategies, and emotional intelligence: A cross-sectional study of university students in helping disciplines. *Nurse Education Today*, 68, 226–231. <https://doi.org/10.1016/j.nedt.2018.06.012>
- Erikson, E. H. (1993). *Childhood and society* (1st ed). Erscheinungsort nicht ermittelbar: W. W. Norton & Company, Incorporated.
- Errázuriz, P., Opazo, S., Behn, A., Silva, O., & Gloger, S. (2017). Spanish adaptation and validation of the Outcome Questionnaire OQ-30.2. *Frontiers in Psychology*, 8, 673. <https://doi.org/10.3389/fpsyg.2017.00673>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th edition). Los Angeles London New Delhi Singapore Washington DC Melbourne: SAGE.
- Fincham, F. D., & Beach, S. R. H. (2006). Relationship Satisfaction. In A. L. Vangelisti & D. Perlman (Eds), *The Cambridge Handbook of Personal Relationships* (1st edn, pp. 579–594). Cambridge University Press. <https://doi.org/10.1017/CBO9780511606632.032>
- Flick, U. (2017). *Introducing Research Methodology: A Beginner's Guide to Doing a Research Project*. London: Sage.
- Fordham, B., Sugavanam, T., Edwards, K., Stallard, P., Howard, R., Das Nair, R., ... Lamb, S. E. (2021). The evidence for cognitive behavioural therapy in any condition, population or context: A meta-review of systematic reviews and panoramic meta-analysis. *Psychological Medicine*, 51(1), 21–29. <https://doi.org/10.1017/S0033291720005292>
- Frajerman, A., Chaumette, B., Krebs, M.-O., & Morvan, Y. (2022). Mental health in medical, dental and pharmacy students: A cross-sectional study. *Journal of Affective Disorders Reports*, 10, 100404. <https://doi.org/10.1016/j.jadr.2022.100404>
- Franklin, C., Ding, X., Kim, J., Zhang, A., Hai, A. H., Jones, K., ... O'Connor, A. (2024). Solution-focused brief therapy in community-based services: A meta-analysis of randomized controlled studies. *Research on Social Work Practice*, 34(3), 265–276. <https://doi.org/10.1177/10497315231162611>
- Franklin, C., Trepper, T. S., McCollum, E. E., & Gingerich, W. J. (2011). *Solution-focused brief therapy*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195385724.001.0001>

- Furlong, P., & Marsh, D. (2010). A skin not a sweater: Ontology and epistemology in political science. In D. Marsh & G. Stoker (Eds), *Theory and Methods in Political Science* (pp. 184–211). London: Macmillan Education UK. https://doi.org/10.1007/978-0-230-36664-0_10
- Gearing, R. E., El-Bassel, N., Ghesquiere, A., Baldwin, S., Gillies, J., & Ngeow, E. (2011). Major ingredients of fidelity: A review and scientific guide to improving quality of intervention research implementation. *Clinical Psychology Review, 31*(1), 79–88. <https://doi.org/10.1016/j.cpr.2010.09.007>
- Geschwind, N., Bosgraaf, E., Bannink, F., & Peeters, F. (2020). Positivity pays off: Clients' perspectives on positive compared with traditional cognitive behavioral therapy for depression. *Psychotherapy, 57*(3), 366–378. <https://doi.org/10.1037/pst0000288>
- Ghana News Agency. (2019, October 11). Government urged to decriminalise law on suicide attempts. Retrieved 10 November 2019, from <http://www.myjoyonline.com/news/2019/October-11th/government-urged-to-decriminalise-law-on-suicide-attempts.php>
- Ghana Psychology Council. (2019). *Ethical principles and code of conduct*. Ghana Psychology Council. Retrieved from file:///C:/Users/albri/AppData/Local/Temp/GPC%20ETHICAL%20PRINCIPLES%20AND%20CODE%20OF%20CONDUCT%202019.pdf
- Gil, V. (2024). Missing Out: What's Going On With Male Friendships?: Review and Discussion of Male Friendships in the 21st Century—Change and Stasis. *OKH Journal: Anthropological Ethnography and Analysis Through the Eyes of Christian Faith, 8*(1), 26–46. <https://doi.org/10.62141/okh.v8i1.199>
- Gingerich, W. J., & Peterson, L. T. (2013). *Effectiveness of solution-focused brief therapy: A systematic qualitative review of controlled outcome studies*. Centre for Reviews and Dissemination (UK). Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK138422/>
- Girme, Y. U., Park, Y., & MacDonald, G. (2023). Coping or Thriving? Reviewing Intrapersonal, Interpersonal, and Societal Factors Associated With Well-Being in Singlehood From a Within-Group Perspective. *Perspectives on Psychological Science, 18*(5), 1097–1120. <https://doi.org/10.1177/17456916221136119>
- Gottman, J. S. (2015). *10 Principles for Doing Effective Couples Therapy (Norton Series on Interpersonal Neurobiology)*. Erscheinungsort nicht ermittelbar: W. W. Norton & Company, Incorporated.
- Graham, B. M., & Li, S. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry, 4*(1), 73–82. [https://doi.org/10.1016/S2215-0366\(16\)30358-3](https://doi.org/10.1016/S2215-0366(16)30358-3)

- Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., & Apter, C. (2021). Gender differences in perceived stress and coping among college students. *PLOS ONE*, *16*(8), e0255634. <https://doi.org/10.1371/journal.pone.0255634>
- Guerrero, M., Longan, C., Cummings, C., Kassanits, J., Reilly, A., Stevens, E., & Jason, L. A. (2022). Women's friendships: A basis for individual-level resources and their connection to power and optimism. *The Humanistic Psychologist*, *50*(3), 360–375. <https://doi.org/10.1037/hum0000295>
- Hahs-Vaughn, D. L., & Lomax, R. G. (2020). *An introduction to statistical concepts* (Fourth edition). New York, NY: Routledge, Taylor & Francis Group.
- Hasa. (2020, March 2). What is the difference between positivism and constructivism. Retrieved 26 December 2021, from Pediaa.Com website: <https://pediaa.com/what-is-the-difference-between-positivism-and-constructivism/>
- Hashish, E. A. A. (2024). Tackling nurses' mental health issues: Key risk factors, consequences and organisational solutions for improving well-being. *Evidence Based Nursing*, ebnurs-2024-104113. <https://doi.org/10.1136/ebnurs-2024-104113>
- Heunis, J. C., Kigozi-Male, N. G., Maeko, M., & Van Jaarsveldt, D. (2025). Mental health in nursing education: Perspectives of learning facilitators and students in South Africa. *BMC Nursing*, *24*(1), 997. <https://doi.org/10.1186/s12912-025-03606-8>
- Hewitt, B., Baxter, J., & Western, M. (2005). Marriage breakdown in Australia: The social correlates of separation and divorce. *Journal of Sociology*, *41*(2), 163–183. <https://doi.org/10.1177/1440783305053235>
- Hochschild, A. R., & Machung, A. (2012). *The second shift: Working families and the revolution at home*. New York, N.Y: Penguin Books.
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The Efficacy of Cognitive Behavioral Therapy: A Review of Meta-analyses. *Cognitive Therapy and Research*, *36*(5), 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social Relationships and Mortality Risk: A Meta-analytic Review. *PLoS Medicine*, *7*(7), e1000316. <https://doi.org/10.1371/journal.pmed.1000316>
- Hsu, K.-S., Eads, R., Lee, M. Y., & Wen, Z. (2021). Solution-focused brief therapy for behavior problems in children and adolescents: A meta-analysis of treatment effectiveness and family involvement. *Children and Youth Services Review*, *120*, 105620. <https://doi.org/10.1016/j.childyouth.2020.105620>
- Huber, M., Knottnerus, J. A., Green, L., Horst, H. van der, Jadad, A. R., Kromhout, D., ... Smid, H. (2011). How should we define health? *BMJ*, *343*, d4163. <https://doi.org/10.1136/bmj.d4163>

- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, *20*(2), 178–187. <https://doi.org/10.1108/02683940510579803>
- Joubert, J., & Guse, T. (2022). Implementing solution-focused brief therapy to facilitate hope and subjective well-being among South African trauma survivors: A case study. *Counselling and Psychotherapy Research*, *22*(1), 147–156. <https://doi.org/10.1002/capr.12416>
- Kalmijn, M. (2013). Adult children's relationships with married parents, divorced parents, and stepparents: Biology, marriage, or residence? *Journal of Marriage and Family*, *75*(5), 1181–1193. <https://doi.org/10.1111/jomf.12057>
- Kalmijn, M., & Van Groenou, M. B. (2005). Differential effects of divorce on social integration. *Journal of Social and Personal Relationships*, *22*(4), 455–476. <https://doi.org/10.1177/0265407505054516>
- Kang, L., Ma, S., Chen, M., Yang, J., Wang, Y., Li, R., ... Liu, Z. (2020). Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain, Behavior, and Immunity*, *87*, 11–17. <https://doi.org/10.1016/j.bbi.2020.03.028>
- Keenan, K., & Hipwell, A. E. (2005). Preadolescent Clues to Understanding Depression in Girls. *Clinical Child and Family Psychology Review*, *8*(2), 89–105. <https://doi.org/10.1007/s10567-005-4750-3>
- Kim, J., Jordan, S. S., Franklin, C., & Froerer, A. (2019). Is Solution-Focused Brief Therapy Evidence-Based? An Update 10 Years Later. *Families in Society: The Journal of Contemporary Social Services*, *100*(2), 127–138. <https://doi.org/10.1177/1044389419841688>
- Kim, J. S., & Franklin, C. (2009). Solution-focused brief therapy in schools: A review of the outcome literature. *Children and Youth Services Review*, *31*(4), 464–470. <https://doi.org/10.1016/j.childyouth.2008.10.002>
- Kuyken, W., Hayes, R., Barrett, B., Byng, R., Dalglish, T., Kessler, D., ... Byford, S. (2015). Effectiveness and cost-effectiveness of mindfulness-based cognitive therapy compared with maintenance antidepressant treatment in the prevention of depressive relapse or recurrence (PREVENT): A randomised controlled trial. *The Lancet*, *386*(9988), 63–73. [https://doi.org/10.1016/S0140-6736\(14\)62222-4](https://doi.org/10.1016/S0140-6736(14)62222-4)
- Lambert, M., Hansen, N. B., & Harmon, S. C. (2010). Outcome questionnaire system (The OQ System): Development and practical applications in healthcare settings. In M. Barkham, G. E. Hardy, & J. Mellor-Clark (Eds), *Developing and Delivering Practice-Based Evidence* (pp. 139–154). Chichester, UK: John Wiley & Sons, Ltd. <https://doi.org/10.1002/9780470687994.ch6>

- Lambert, M. J. (2012). The Outcome Questionnaire-45. *Integrating Science and Practice, 2*(2), 24–27.
- Lambert, Michael J. (2015). Progress feedback and the OQ-system: The past and the future. *Psychotherapy, 52*(4), 381–390. <https://doi.org/10.1037/pst0000027>
- Leach, L. S., Christensen, H., Mackinnon, A. J., Windsor, T. D., & Butterworth, P. (2008). Gender differences in depression and anxiety across the adult lifespan: The role of psychosocial mediators. *Social Psychiatry and Psychiatric Epidemiology, 43*(12), 983–998. <https://doi.org/10.1007/s00127-008-0388-z>
- LeCompte, M. D., & Schensul, J. J. (2010). *Designing & conducting ethnographic research: An introduction* (Second edition). Lanham, Md: AltaMira Press.
- Li, L., Yao, C., Zhang, Y., & Chen, G. (2020). Trait Forgiveness Moderated the Relationship Between Work Stress and Psychological Distress Among Final-Year Nursing Students: A Pilot Study. *Frontiers in Psychology, 11*, 1674. <https://doi.org/10.3389/fpsyg.2020.01674>
- Lin, L., & Aloe, A. M. (2021). Evaluation of various estimators for standardized mean difference in meta-analysis. *Statistics in Medicine, 40*(2), 403–426. <https://doi.org/10.1002/sim.8781>
- Liu, Y.-L., Lee, C.-H., & Wu, L.-M. (2024). A mindfulness-based intervention improves perceived stress and mindfulness in university nursing students: A quasi-experimental study. *Scientific Reports, 14*(1), 13220. <https://doi.org/10.1038/s41598-024-64183-5>
- Lorenz, F. O., Wickrama, K. A. S., Conger, R. D., & Elder, G. H. (2006). The Short-Term and Decade-Long Effects of Divorce on Women’s Midlife Health. *Journal of Health and Social Behavior, 47*(2), 111–125. <https://doi.org/10.1177/002214650604700202>
- Luhmann, M., & Hawkley, L. C. (2016). Age differences in loneliness from late adolescence to oldest old age. *Developmental Psychology, 52*(6), 943–959. <https://doi.org/10.1037/dev0000117>
- Mahalik, J. R., Burns, S. M., & Syzdek, M. (2007). Masculinity and perceived normative health behaviors as predictors of men’s health behaviors. *Social Science & Medicine, 64*(11), 2201–2209. <https://doi.org/10.1016/j.socscimed.2007.02.035>
- Mansell, W., Carey, T. A., & Tai, S. (2013). *A transdiagnostic approach to CBT using method of levels therapy: Distinctive features*. Milton Park, Abingdon, Oxon: Routledge.
- Mantovani, N., Pizzolati, M., & Edge, D. (2017). Exploring the relationship between stigma and help-seeking for mental illness in African-descended faith communities in the UK. *Health Expectations, 20*(3), 373–384. <https://doi.org/10.1111/hex.12464>

- Matavovszky, D., Nguyen Luu, L. A., & Karner, O. (2024). Development of an instrument to assess the mental health of university students: Validation of the Outcome Questionnaire-45 in a Hungarian sample. *Frontiers in Psychology, 15*, 1334615. <https://doi.org/10.3389/fpsyg.2024.1334615>
- Matud, M. P. (2004). Gender differences in stress and coping styles. *Personality and Individual Differences, 37*(7), 1401–1415. <https://doi.org/10.1016/j.paid.2004.01.010>
- Matud, M. P., Díaz, A., Pino, M. J. D., Fortes, D., & Ibáñez, I. (2024). Gender, psychological distress, and subjective well-being two years after the onset of the COVID-19 pandemic in Spain. *Cadernos de Saúde Pública, 40*(3), e00141523. <https://doi.org/10.1590/0102-311xen141523>
- McCann, C. M., Beddoe, E., McCormick, K., Huggard, P., Kedge, S., Adamson, C., & Huggard, J. (2013). Resilience in the health professions: A review of recent literature. *International Journal of Wellbeing, 3*(1), 60–81. <https://doi.org/10.5502/ijw.v3i1.4>
- McKenzie, S. K., Collings, S., Jenkin, G., & River, J. (2018). Masculinity, social connectedness, and mental health: Men's diverse patterns of practice. *American Journal of Men's Health, 12*(5), 1247–1261. <https://doi.org/10.1177/1557988318772732>
- Menestrel, S. L., Williams, D. R., & Wakefield, M. K. (2021). Supporting the health and professional well-being of nurses. In *The future of nursing 2020-2030: Charting a path to achieve health equity*. National Academies Press (US). Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK573902/>
- Murugesu, J. (2019, October 17). Academics need greater help in addressing the mental health problems of their students. Retrieved 24 December 2019, from Times Higher Education (THE) website: <https://www.timeshighereducation.com/features/academics-need-greater-help-addressing-mental-health-problems-their-students>
- Nakao, M., Shirotaki, K., & Sugaya, N. (2021). Cognitive-behavioral therapy for management of mental health and stress-related disorders: Recent advances in techniques and technologies. *BioPsychoSocial Medicine, 15*(1), 16. <https://doi.org/10.1186/s13030-021-00219-w>
- Nguyen, D. T., Wright, E. P., Dedding, C., Pham, T. T., & Bunders, J. (2019). Low Self-Esteem and Its Association with Anxiety, Depression, and Suicidal Ideation in Vietnamese Secondary School Students: A Cross-Sectional Study. *Frontiers in Psychiatry, 10*, 698. <https://doi.org/10.3389/fpsyg.2019.00698>
- Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: The role of gender. *Annual Review of Clinical Psychology, 8*(1), 161–187. <https://doi.org/10.1146/annurev-clinpsy-032511-143109>

- Ntow, M. C., & Kagee, A. (2025). Senior High School Students' Perceptions of and Recommendations for Mental Health Support in Ghanaian Schools. *Contemporary School Psychology, 29*(2), 301–314. <https://doi.org/10.1007/s40688-024-00506-7>
- Odonkor, S. T., & Adams, S. (2021). Predictors of stress and associated factors among healthcare workers in Western Ghana. *Heliyon, 7*(6), e07223. <https://doi.org/10.1016/j.heliyon.2021.e07223>
- Odonkor, S. T., & Frimpong, K. (2020). Burnout among Healthcare Professionals in Ghana: A Critical Assessment. *BioMed Research International, 2020*, 1–8. <https://doi.org/10.1155/2020/1614968>
- Opoku Agyemang, S., Ninnoni, J. P., & Enyan, N. I. E. (2022a). Prevalence and determinants of depression, anxiety and stress among psychiatric nurses in Ghana: A cross-sectional study. *BMC Nursing, 21*(1), 179. <https://doi.org/10.1186/s12912-022-00964-5>
- Opoku Agyemang, S., Ninnoni, J. P., & Enyan, N. I. E. (2022b). Prevalence and determinants of depression, anxiety and stress among psychiatric nurses in Ghana: A cross-sectional study. *BMC Nursing, 21*(1), 179. <https://doi.org/10.1186/s12912-022-00964-5>
- Opoku, D. A., Ayisi-Boateng, N. K., Osarfo, J., Sulemana, A., Mohammed, A., Spangenberg, K., ... Edusei, A. K. (2022). Attrition of Nursing Professionals in Ghana: An Effect of Burnout on Intention to Quit. *Nursing Research and Practice, 2022*, 1–9. <https://doi.org/10.1155/2022/3100344>
- Opong Asante, K., & Andoh-Arthur, J. (2015a). Prevalence and determinants of depressive symptoms among university students in Ghana. *Journal of Affective Disorders, 171*, 161–166. <https://doi.org/10.1016/j.jad.2014.09.025>
- Opong Asante, K., & Andoh-Arthur, J. (2015b). Prevalence and determinants of depressive symptoms among university students in Ghana. *Journal of Affective Disorders, 171*, 161–166. <https://doi.org/10.1016/j.jad.2014.09.025>
- Patten, M. L., & Newhart, M. (2018). *Understanding research methods: An overview of the essentials* (Tenth edition). New York, NY: Routledge, Taylor & Francis Group.
- Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College students: Mental health problems and treatment considerations. *Academic Psychiatry, 39*(5), 503–511. <https://doi.org/10.1007/s40596-014-0205-9>
- Peltzer, K., & Pengpid, S. (2015). Depressive symptoms and social demographic, stress and health risk behaviour among university students in 26 low-, middle- and high-income countries. *International Journal of Psychiatry in Clinical Practice, 19*(4), 259–265. <https://doi.org/10.3109/13651501.2015.1082598>

- Pepping, C. A., & MacDonald, G. (2019). Adult attachment and long-term singlehood. *Current Opinion in Psychology*, *25*, 105–109. <https://doi.org/10.1016/j.copsyc.2018.04.006>
- Pietromonaco, P. R., & Beck, L. A. (2019). Adult attachment and physical health. *Current Opinion in Psychology*, *25*, 115–120. <https://doi.org/10.1016/j.copsyc.2018.04.004>
- Quesada-Puga, C., Cañadas, G. R., Gómez-Urquiza, J. L., Aguayo-Estremera, R., Ortega-Campos, E., Romero-Béjar, J. L., & Cañadas-De La Fuente, G. A. (2024). Depression in nursing students during the COVID-19 pandemic: Systematic review and meta-analysis. *PLOS ONE*, *19*(7), e0304900. <https://doi.org/10.1371/journal.pone.0304900>
- Qureshi, Q., & Eaton. (2020). *Mental health in Africa: A briefing for the All Party Parliamentary Group for Africa*. London: Royal African Society and Mental Health Innovation Network.
- Ratner, H., George, E., & Iveson, C. (2012). *Solution focused brief therapy: 100 key points and techniques*. London: Routledge/Taylor and Francis Group.
- Reis, H. T. (2012). Perceived partner responsiveness as an organizing theme for the study of relationships and well-being. In L. Campbell & T. J. Loving (Eds), *Interdisciplinary research on close relationships: The case for integration*. (pp. 27–52). Washington: American Psychological Association. <https://doi.org/10.1037/13486-002>
- Reyal, H. P., Dissanayake, N., Gunarathna, H., Soysa, D., Fernando, M. S., & Senarathna, L. (2024). Association between individual-level socioeconomic factors and intimate partner violence victimisation in women: A systematic review protocol. *BMJ Open*, *14*(3), e080117. <https://doi.org/10.1136/bmjopen-2023-080117>
- Rhoades, G. K., Kamp Dush, C. M., Atkins, D. C., Stanley, S. M., & Markman, H. J. (2011). Breaking up is hard to do: The impact of unmarried relationship dissolution on mental health and life satisfaction. *Journal of Family Psychology*, *25*(3), 366–374. <https://doi.org/10.1037/a0023627>
- Ridgeway, C. L. (2012). Review of Framed by Gender: How gender inequality persists in the modern world. *Societies Without Borders*, *7*(1), 124–127.
- Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8–9. [https://doi.org/10.1016/S2215-0366\(16\)30348-0](https://doi.org/10.1016/S2215-0366(16)30348-0)
- Rietveld, T., & Van Hout, R. (2017). The paired t test and beyond: Recommendations for testing the central tendencies of two paired samples in research on speech, language and hearing pathology. *Journal of Communication Disorders*, *69*, 44–57. <https://doi.org/10.1016/j.jcomdis.2017.07.002>

- Roberts, M., Mogan, C., & Asare, J. B. (2014). An overview of Ghana's mental health system: Results from an assessment using the World Health Organization's Assessment Instrument for Mental Health Systems (WHO-AIMS). *International Journal of Mental Health Systems*, 8(1), 16. <https://doi.org/10.1186/1752-4458-8-16>
- Robles, T. F., & Kiecolt-Glaser, J. K. (2003). The physiology of marriage: Pathways to health. *Physiology & Behavior*, 79(3), 409–416. [https://doi.org/10.1016/S0031-9384\(03\)00160-4](https://doi.org/10.1016/S0031-9384(03)00160-4)
- Rose, A. J., Carlson, W., & Waller, E. M. (2007). Prospective associations of co-rumination with friendship and emotional adjustment: Considering the socioemotional trade-offs of co-rumination. *Developmental Psychology*, 43(4), 1019–1031. <https://doi.org/10.1037/0012-1649.43.4.1019>
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, 132(1), 98–131. <https://doi.org/10.1037/0033-2909.132.1.98>
- Rothwell, N. (2005). How brief is solution focussed brief therapy? A comparative study. *Clinical Psychology & Psychotherapy*, 12(5), 402–405. <https://doi.org/10.1002/cpp.458>
- Rusu, P. P., Apostu, M. N., Turliuc, M. N., & Hilpert, P. (2023). Positive, but not negative emotions, predict intimacy in couple relationships: A daily diary study. *Current Psychology*, 42(31), 27758–27770. <https://doi.org/10.1007/s12144-022-03756-x>
- Sanetti, L. M. H., Cook, B. G., & Cook, L. (2021). Treatment fidelity: What it is and why It matters. *Learning Disabilities Research & Practice*, 36(1), 5–11. <https://doi.org/10.1111/ldrp.12238>
- Sartorius, N. (2006). The meanings of health and its promotion. *Croatian Medical Journal*, 47(4), 662–664.
- Sbarra, D. A., & Emery, R. E. (2005). The emotional sequelae of nonmarital relationship dissolution: Analysis of change and intraindividual variability over time. *Personal Relationships*, 12(2), 213–232. <https://doi.org/10.1111/j.1350-4126.2005.00112.x>
- Sbarra, D. A., Emery, R. E., Beam, C. R., & Ocker, B. L. (2014). Marital Dissolution and Major Depression in Midlife: A Propensity Score Analysis. *Clinical Psychological Science*, 2(3), 249–257. <https://doi.org/10.1177/2167702613498727>
- Schaeffer, K. (2024, February 27). For women's history month: A look at gender gains – and gaps – in the U.S. Retrieved 15 October 2024, from Pew Research Center website: <https://www.pewresearch.org/short-reads/2024/02/27/for-womens-history-month-a-look-at-gender-gains-and-gaps-in-the-us/>

- Schuch, F. B., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P. B., Silva, E. S., ... Stubbs, B. (2018). Physical activity and Incident depression: A meta-analysis of prospective cohort studies. *American Journal of Psychiatry*, *175*(7), 631–648. <https://doi.org/10.1176/appi.ajp.2018.17111194>
- Shapiro, A., & Cooney, T. M. (2007). Divorce and intergenerational relations across the life course. *Advances in Life Course Research*, *12*, 191–219. [https://doi.org/10.1016/S1040-2608\(07\)12007-4](https://doi.org/10.1016/S1040-2608(07)12007-4)
- Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, *52*(3/4), 591. <https://doi.org/10.2307/2333709>
- Shin, H., & Park, C. (2023). Gender differences in social networks and physical and mental health: Are social relationships more health protective in women than in men? *Frontiers in Psychology*, *14*, 1216032. <https://doi.org/10.3389/fpsyg.2023.1216032>
- Simon, R. W. (2002). Revisiting the Relationships among Gender, Marital Status, and Mental Health. *American Journal of Sociology*, *107*(4), 1065–1096. <https://doi.org/10.1086/339225>
- Simon, R. W., & Barrett, A. E. (2010). Nonmarital romantic relationships and mental health in early adulthood: Does the association differ for women and men? *Journal of Health and Social Behavior*, *51*(2), 168–182. <https://doi.org/10.1177/0022146510372343>
- Skinner, B. F. (1965). *Science and human behavior* (First Free Press Paperback edition). New York, NY: The Free Press.
- Sonmez, Y., Akdemir, M., Meydanlioglu, A., & Aktekin, M. R. (2023). Psychological Distress, Depression, and Anxiety in Nursing Students: A Longitudinal Study. *Healthcare*, *11*(5), 636. <https://doi.org/10.3390/healthcare11050636>
- Souza, R. R. D., Toebe, M., Mello, A. C., & Bittencourt, K. C. (2023). Sample size and Shapiro-Wilk test: An analysis for soybean grain yield. *European Journal of Agronomy*, *142*, 126666. <https://doi.org/10.1016/j.eja.2022.126666>
- Spilsbury, G. (2012). Solution-focused brief therapy for depression and alcohol dependence: A case study. *Clinical Case Studies*, *11*(4), 263–275. <https://doi.org/10.1177/1534650112450506>
- Staab, S. L., Williams, C., Tabbush, & Turquet, L. (2024). *“Harnessing social protection for gender equality, resilience and transformation. World survey on the Role of women in development.* New York: UN-Women.
- Steenkamp, I., & Chipps, J. (2024). South African nursing students’ stress and resilience during the global COVID-19 health crisis. *Journal of Psychology in Africa*, *34*(2), 169–175. <https://doi.org/10.1080/14330237.2024.2335867>

- Stokes, J. P., & Levin, I. (1986). Gender differences in predicting loneliness from social network characteristics. *Journal of Personality and Social Psychology*, 51(5), 1069–1074. <https://doi.org/10.1037/0022-3514.51.5.1069>
- Storrie, K., Ahern, K., & Tuckett, A. (2010). A systematic review: Students with mental health problems-A growing problem. *International Journal of Nursing Practice*, 16(1), 1–6. <https://doi.org/10.1111/j.1440-172X.2009.01813.x>
- Sullivan, G. M., & Feinn, R. (2012). Using effect size—Or why the *P* value Is not enough. *Journal of Graduate Medical Education*, 4(3), 279–282. <https://doi.org/10.4300/JGME-D-12-00156.1>
- Sweeney, M. M. (2010). Remarriage and stepfamilies: Strategic sites for family scholarship in the 21st century. *Journal of Marriage and Family*, 72(3), 667–684. <https://doi.org/10.1111/j.1741-3737.2010.00724.x>
- Tamres, L. K., Janicki, D., & Helgeson, V. S. (2002). Sex differences in coping behavior: A meta-analytic review and an examination of relative coping. *Personality and Social Psychology Review*, 6(1), 2–30. https://doi.org/10.1207/S15327957PSPR0601_1
- Tannen, D. (2007). *You Just Don't Understand: Women and Men in Conversation*. New York: HarperCollins Publishers.
- Team, C. H. E. (2023, October 27). CBT Journaling Can Help You Deal With Negative Thoughts. Retrieved 17 July 2024, from Charlie Health website: <https://www.charliehealth.com/post/cbt-journaling>
- Thorley, C. (2019). *Not by degree: Improving student mental health in UK's Universities*. Institute for Public Policy Research. Retrieved from https://www.ippr.org/files/2017-09/1504645674_not-by-degrees-170905.pdf
- Tsai, J.-C., Chen, C.-S., Sun, I.-F., Liu, K.-M., & Lai, C.-S. (2014). Clinical learning environment measurement for medical trainees at transitions: Relations with socio-cultural factors and mental distress. *BMC Medical Education*, 14(1), 226. <https://doi.org/10.1186/1472-6920-14-226>
- Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. *Preventive Medicine Reports*, 12, 271–283. <https://doi.org/10.1016/j.pmedr.2018.10.003>
- Ubando, M. (2016). Gender differences in Intimacy, emotional expressivity, and relationship satisfaction. *Pepperdine Journal of Communication Research*, 4(13).
- Umberson, D., Williams, K., Thomas, P. A., Liu, H., & Thomeer, M. B. (2014). Race, gender, and chains of disadvantage: Childhood adversity, social relationships, and health. *Journal of Health and Social Behavior*, 55(1), 20–38. <https://doi.org/10.1177/0022146514521426>

- Vanassche, S., Sodermans, A. K., Matthijs, K., & Swicegood, G. (2014). The effects of family type, family relationships and parental role models on delinquency and alcohol use among Flemish adolescents. *Journal of Child and Family Studies*, 23(1), 128–143. <https://doi.org/10.1007/s10826-012-9699-5>
- Varpio, L., Paradis, E., Uijtdehaage, S., & Young, M. (2020). The distinctions between theory, theoretical framework, and conceptual framework. *Academic Medicine*, 95(7), 989–994. <https://doi.org/10.1097/ACM.0000000000003075>
- Vuolo, M., Staff, J., & Mortimer, J. T. (2012). Weathering the great recession: Psychological and behavioral trajectories in the transition from school to work. *Developmental Psychology*, 48(6), 1759–1773. <https://doi.org/10.1037/a0026047>
- Wakida, E. K., Obua, C., Rukundo, G. Z., Maling, S., Talib, Z. M., & Okello, E. S. (2018). Barriers and facilitators to the integration of mental health services into primary healthcare: A qualitative study among Ugandan primary care providers using the COM-B framework. *BMC Health Services Research*, 18(1), 890. <https://doi.org/10.1186/s12913-018-3684-7>
- Walker, M., McLean, M., Mathebula, M., & Mukwambo, P. (2022). *Low-income students, human development and higher education in South Africa: Opportunities, obstacles and outcomes*. Cape Town, South Africa: African Minds.
- Watson, J. B. (1913). Psychology as the behaviorist views it. *Psychological Review*, 20(2), 158–177. <https://doi.org/10.1037/h0074428>
- Watson, J. B., & Rayner, R. (1920). Conditioned emotional reactions. *Journal of Experimental Psychology*, 3(1), 1–14. <https://doi.org/10.1037/h0069608>
- Watson, R., Deary, I., Thompson, D., & Li, G. (2008). A study of stress and burnout in nursing students in Hong Kong: A questionnaire survey. *International Journal of Nursing Studies*, 45(10), 1534–1542. <https://doi.org/10.1016/j.ijnurstu.2007.11.003>
- Way, N. (2011). *Deep secrets: Boys' friendships and the crisis of connection*. Cambridge, Massachusetts London, England: Harvard University Press.
- Whisman, M. A., & Uebelacker, L. A. (2009). Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. *Psychology and Aging*, 24(1), 184–189. <https://doi.org/10.1037/a0014759>
- Whitfield, G. (2010). Group cognitive-behavioural therapy for anxiety and depression. *Advances in Psychiatric Treatment*, 16(3), 219–227. <https://doi.org/10.1192/apt.bp.108.005744>
- WHO. (2007). *Ghana: A very progressive mental health law*. Mental Health Improvement for Nations Development.

- WHO. (2019). Mental health in the workplace: Going global. Retrieved 18 July 2024, from <https://www.who.int/news-room/commentaries/detail/mental-health-in-the-workplace>
- WHO. (2021). Mental health. Retrieved 2 November 2021, from Mental Health Burden website: <https://www.who.int/westernpacific/health-topics/mental-health>
- WHO. (2022, October 10). Improving access to mental health services in Ghana | WHO | Regional Office for Africa. Retrieved 3 October 2024, from <https://www.afro.who.int/countries/ghana/news/improving-access-mental-health-services-ghana>
- WHO. (2023, August 15). Sustaining the mental health agenda in Ghana. Retrieved 22 July 2024, from WHO | Regional Office for Africa website: <https://www.afro.who.int/countries/ghana/news/sustaining-mental-health-agenda-ghana>
- Williams, C. L. (1992). The Glass Escalator: Hidden Advantages for Men in the 'Female' Professions. *Social Problems*, 39(3), 253–267. <https://doi.org/10.2307/3096961>
- Williamson, H. C. (2021). The development of communication behavior over the newlywed years. *Journal of Family Psychology*, 35(1), 11–21. <https://doi.org/10.1037/fam0000780>
- Willroth, E., & Hill, P. (2021). Social Relationships in Older Adulthood and Links With Psychological and Physical Well-Being. *Innovation in Aging*, 5(Supplement_1), 212–212. <https://doi.org/10.1093/geroni/igab046.817>
- Yang, J., Chen, Y., Tian, Y., Li, X., Yu, Q., Huang, C., ... Li, Y. (2024). Risk factors and consequences of mental health problems in nurses: A scoping review of cohort studies. *International Journal of Mental Health Nursing*, 33(5), 1197–1211. <https://doi.org/10.1111/inm.13337>
- Yanow, D., & Schwartz-Shea, P. (2011). *Interpretive Approaches to Research Design: Concepts and Processes*. Hoboken: Taylor & amp.
- Yousafzai, A., Ahmer, S., Syed, E., Bhutto, N., Iqbal, S., Siddiqi, M., & Zaman, M. (2009). Well-being of medical students and their awareness on substance misuse: A cross-sectional survey in Pakistan. *Annals of General Psychiatry*, 8(1), 8. <https://doi.org/10.1186/1744-859X-8-8>
- Zhang, W., Qiu, L., Tang, F., & Sun, H.-J. (2023). Gender differences in cognitive and affective interpersonal emotion regulation in couples: An fNIRS hyperscanning. *Social Cognitive and Affective Neuroscience*, 18(1), nsad057. <https://doi.org/10.1093/scan/nsad057>

APPENDICES

Appendix Number	Appendix Description
I	Request for Introductory Letter
II	Introductory Letter from Department of Counselling Psychology
III	Permission from Nursing Training College
IV	Data Collection Package

Appendix I Request for Introductory Letter

Albright Asiwome Banibensu
P.O. Box MA 30
Ho. V/R
024 336 2962 albrightbans@gmail.com

July 14, 2023

The Head of Department
Department of Counselling Psychology
Faculty of Educational Studies
University of Education, Winneba

Dear Dr.

Application for Introductory Letter for Data Collection Student #: 201800921

I wish to apply for an introductory letter to start data collection. My supervisors are Dr. Daniel K. Buku and Dr. Hannah Emma Acquaye.

The purpose of my study is to find out the **effect of therapy on the psychological functioning of trainee-nurses in Ghana by comparing SFBT and CBT as treatment modalities in the domains of symptom distress, social role, interpersonal relationship and risk among trainee-nurses** and it is expected that data will be collected from 100 nursing students.

The study was guided by the following research questions:

1. What intimacy differences exist based on Symptoms Distress symptoms, Interpersonal Relations symptoms and Social Role symptoms of trainee-nurses?
2. What gender differences exist based on Symptoms Distress symptoms, Interpersonal Relations symptoms and Social Role symptoms of trainee-nurses?
3. What mean score Symptoms Distress differences, Interpersonal Relations differences and Social Role differences exist between pre-test and post-test scores in CBT, SFBT, and Placebo groups.
4. What mean Risk differences exist between pre-test and post-test scores in CBT, SFBT, and Placebo groups.


Yours sincerely,



Albright Asiwome Banibensu
(201800921)

Appendix II

Introductory Letter from Department of Counselling Psychology

 **UNIVERSITY OF EDUCATION, WINNEBA**
FACULTY OF EDUCATIONAL STUDIES
DEPARTMENT OF COUNSELLING PSYCHOLOGY
P. O. Box 25, Winneba, Ghana | psychology@uew.edu.gh
030 298 0904

10th August, 2023

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF INTRODUCTION

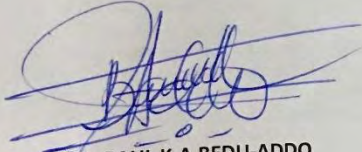
I write to introduce to **ALBRIGHT ASIWOME BENIBENSO**, a PHD Counselling Psychology student in the Department of Counselling Psychology, of the University of Education, Winneba.


As part of the requirements of the Programme he is pursuing, he is conducting a research titled: **THE EFFECT OF THERAPY ON THE PSYCHOLOGICAL FUNCTIONING OF NURSING TRAINING TRAINEES IN GREATER ACCRA**. He is required to administer questionnaires to enable him gather information for his data analysis and he has chosen to do so in your outfit

I would be grateful if he is given permission to undertake this important exercise which is solely for academic purposes.

Thank you.

Yours sincerely,


DR. PAUL K.A. BEDU-ADDO
AG. HEAD OF DEPARTMENT

 www.uew.edu.gh

Appendix III

Permission from Nursing Training College



University of Education, Winneba
Faculty of Educational Studies
Department of Counselling Psychology

The Effect of Therapy on Psychological Functioning of Nursing-Trainees in Greater Accra, Ghana:
Comparing SFBT and CBT as Treatment Modalities

Informed Consent

Principal Investigator: Albright A. Banibensu

Faculty Supervisors: Dr. Daniel K. Buku
Dr. Hannah E. Acquaye

You are being invited to participate in a research study. The study is *voluntary* so you can choose to take part or not.

Purpose of the study: The purpose of this study is to find out how effective Cognitive Behavioral Therapy or Solution Focused Brief Therapy could be used to enhance or reduce your psychological functioning as a nurse-trainee.

What you will be asked to do in the study: When you take part in this study, we will ask you to complete a demographic questionnaire and a psychological functioning instrument. You will also be placed in one of multiple groups to engage in therapy.

You will not be given any incentive to take part of this study. Should you be part of the wait-list group, you will be given the same experimental experience should the results indicate that the experiment was effective.

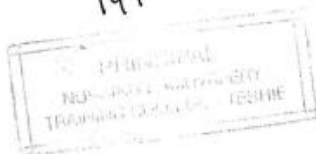
Time required: We expect that you will do the questionnaire in no more than 30 minutes if it is the paper-and-pencil version, and no more than 15 minutes if it is the digital version.

Age requirement: You must be 18 years and above, be registered as a student in a nursing institution and be a voluntary participant.

Study contacts for questions about the study or to report a problem: If you have questions, concerns, or complaints, or think the research has impacted you negatively in any way, talk to: Rev. Albright Banibensu or inform his supervising professor at heacquaye@uew.edu.gh

Seen and Approved.
The SRC President.

14/09/2023



Appendix IV

Data Collection Package

University of Education, Winneba
Faculty of Educational Studies
Department of Counselling Psychology

The Effect of Therapy on Psychological Functioning of Nursing-Trainees in Greater Accra, Ghana: Comparing SFBT and CBT as Treatment Modalities

Informed Consent

Principal Investigator: Albright A. Banibensu

Faculty Supervisors: Dr. Daniel K. Buku
Dr. Hannah E. Acquaye

You are being invited to participate in a research study. The study is *voluntary* so you can choose to take part or not.

Purpose of the study: The purpose of this study is to find out how effective Cognitive Behavioral Therapy or Solution Focused Brief Therapy could be used to enhance or reduce your psychological functioning as a nurse-trainee.

What you will be asked to do in the study: When you take part in this study, we will ask you to complete a demographic questionnaire and a psychological functioning instrument. You will also be placed in one of multiple groups to engage in therapy.

You will not be given any incentive to take part of this study. Should you be part of the wait-list group, you will be given the same experimental experience should the results indicate that the experiment was effective.

Time required: We expect that you will do the questionnaire in no more than 30 minutes if it is the paper-and-pencil version, and no more than 15 minutes if it is the digital version.

Age requirement: You must be 18 years and above, be registered as a student in a nursing institution and be a voluntary participant.

Study contacts for questions about the study or to report a problem: If you have questions, concerns, or complaints, or think the research has impacted you negatively in any way, talk to: Rev. Albright Banibensu or inform his supervising professor at heacquaye@uew.edu.gh

Demographic Information

1. Gender:
 - a. Male []
 - b. Female []
2. How old are you as of today?

3. What is your intimate relationship like?
 - a. Single and not searching []
 - b. Single and searching []
 - c. I am interested in someone who is not interested in me []
 - d. In a relationship / engaged []
 - e. Married []
 - f. Separated / Divorced []
4. What is your current educational status?
 - a. First year nursing trainee []
 - b. Second year nursing trainee []

Outcome Questionnaire (OQ[®]-45.2)

Instructions: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth. Please do not make any marks in the shaded areas.

Name: _____ Age: _____ yrs.
 Sex
 M F
 ID# _____

Session # _____ Date ____/____/____

	Never	Rarely	Sometimes	Frequently	Almost Always	SD IR SR		
						DO NOT MARK BELOW		
1. I get along well with others.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
2. I tire quickly.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
3. I feel no interest in things.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
4. I feel stressed at work/school.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
5. I blame myself for things.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
6. I feel irritated.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
7. I feel unhappy in my marriage/significant relationship.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
8. I have thoughts of ending my life.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
9. I feel weak.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
10. I feel fearful.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
11. After heavy drinking, I need a drink the next morning to get going. (If you do not drink, mark "never").....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
12. I find my work/school satisfying.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
13. I am a happy person.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
14. I work/study too much.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
15. I feel worthless.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
16. I am concerned about family troubles.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
17. I have an unfulfilling sex life.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
18. I feel lonely.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
19. I have frequent arguments.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
20. I feel loved and wanted.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
21. I enjoy my spare time.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
22. I have difficulty concentrating.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
23. I feel hopeless about the future.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
24. I like myself.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
25. Disturbing thoughts come into my mind that I cannot get rid of.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
26. I feel annoyed by people who criticize my drinking (or drug use)..... (If not applicable, mark "never").....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
27. I have an upset stomach.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
28. I am not working/studying as well as I used to.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
29. My heart pounds too much.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
30. I have trouble getting along with friends and close acquaintances.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
31. I am satisfied with my life.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
32. I have trouble at work/school because of drinking or drug use..... (If not applicable, mark "never").....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
33. I feel that something bad is going to happen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
34. I have sore muscles.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
35. I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
36. I feel nervous.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
37. I feel my love relationships are full and complete.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
38. I feel that I am not doing well at work/school.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
39. I have too many disagreements at work/school.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
40. I feel something is wrong with my mind.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
41. I have trouble falling asleep or staying asleep.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
42. I feel blue.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
43. I am satisfied with my relationships with others.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
44. I feel angry enough at work/school to do something I might regret.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
45. I have headaches.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
						+	+	
						Total=		

Developed by Michael J. Lambert, Ph.D. and Gary M. Burdick, Ph.D.
 © Copyright 1996 OQ Measures LLC.
 All Rights Reserved. License Required For All Uses.

For More Information Contact:

OQ MEASURES LLC
 EMAIL: INFO@OQMEASURES.COM
 WEB: WWW.OQMEASURES.COM
 TOLL FREE: 1.888.MH.SCHOOL (1.888.647.821)
 FAX: 802.980.4208

Endorsed by:

Hannah E. Acquaye, PhD
 Research Supervisor
 July 18, 2023