# THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL FOR INDIVIDUALS WITH ANXIETY

by

Gabriella Harris (Nicolaou)

A mini-dissertation submitted in partial fulfilment of the requirements for the degree

**MASTER OF ARTS IN RESEARCH PSYCHOLOGY**

Department of Psychology
Faculty of Humanities
UNIVERSITY OF PRETORIA

Supervisor: Prof. N. Cassimjee
Co-supervisor: Dr N. Coetzee

January 2019

# THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL FOR INDIVIDUALS WITH ANXIETY

## Contents

# THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL FOR INDIVIDUALS WITH ANXIETY

## Declaration of Originality

**UNIVERSITY OF PRETORIA**

The Department of <u>Psychology, Faculty of Humanities</u> places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

While academic staff teach you about referencing techniques and how to avoid plagiarism, you too have a responsibility in this regard. If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (eg a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim), but also when you submit someone else's work in a slightly altered form (paraphrase) or use a line of argument without acknowledging it. You are not allowed to use work previously produced by another student. You are also not allowed to let anybody copy your work with the intention of passing if off as his/her work.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University.

The declaration which follows must accompany all written work submitted while you are a student of the Department of <u>Psychology, Faculty of Humanities</u>. No written work will be accepted unless the declaration has been completed and attached.

Full names of student:     <u>Gabriella Harris (Nicolaou)</u>...........................................................................

Student number:     <u>u15367755</u>..............................................................................................

Topic of work:     <u>The utility of a vimeo as a neuro-psychoeducational tool for individuals with anxiety</u>...........

**Declaration**

1.     I understand what plagiarism is and am aware of the University's policy in this regard.

2.     I declare that this <u>dissertation</u> (eg essay, report, project, assignment, dissertation, thesis, etc) is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.

3.     I have not used work previously produced by another student or any other person to hand in as my own.

4.     I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

**SIGNATURE**     ...................................................................................................................

**THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL**
**FOR INDIVIDUALS WITH ANXIETY**

**Acknowledgements**

Completing this mini-dissertation would not have been possible without the following individuals. I would like to express my sincere gratitude to each one of you for the exceptional role you have each played in assisting me with completing my masters.

# THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL FOR INDIVIDUALS WITH ANXIETY

## Abstract

Many individuals with anxiety in South Africa experience low affordability and accessibility to mental health care, thus limiting their understanding, and creating negative perceptions surrounding anxiety. Educating the communities and developing suitable interventions for anxiety is thus of great importance. Psycho-education is an intervention that entails educating individuals about their psychological condition. Practice and research in neuro-psycho-education as an adjunct to therapy in this context is limited, and thus warrants further exploration.

The neuro-psycho-educational tool used in this study is a vimeo, which through a simple narrative (story) and visual animation, informs the viewer of the different brain regions involved in anxiety. Furthermore, the neural events that occur in the brain when one experiences and attempts to regulate anxiety is outlined. This study investigates the utility of this vimeo as a tool for individuals with anxiety. This utility was explored through eliciting the participants' experience of watching the vimeo, as well as their understanding and perceptions of anxiety and how it relates to their brain functioning. Data was collected via semi-structured interviews with individuals from a community clinic in Gauteng and analysed using thematic analysis.

The findings highlight the vimeo's utility in educating individuals with anxiety on the various causes of anxiety, the important role of the brain, and ways anxiety can be managed by reflecting on the internal brain processes. Participants relayed that the vimeo was a valuable resource for knowledge acquisition and provided alternative and novel perspectives on understanding anxiety and skills for managing anxiety. These findings can help direct the development of neuro-psycho-educational tools, to be used as a cost-effective adjunct to therapy, in resource-limited settings.

Keywords: Anxiety, Neuro-psycho-education, Neuro-psychotherapy, Vimeo, Thematic Analysis, Brain, South Africa

**THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL**

**FOR INDIVIDUALS WITH ANXIETY**

**List of Tables**

**THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL**
**FOR INDIVIDUALS WITH ANXIETY**

**List of Figures**

# THE UTILITY OF A VIMEO AS A NEURO-PSYCHO-EDUCATIONAL TOOL FOR INDIVIDUALS WITH ANXIETY

## Chapter One – Introduction

### 1.1. Introduction

This mini-dissertation documents research that explored the utility of a vimeo, as a neuro-psycho-educational tool, for individuals with anxiety in the semi-urban South African context. This utility was explored through considering the participants' perceptions and understanding of anxiety, as well as their overall opinions of the vimeo. Chapter One provides an overview of background information relevant to this research topic, the research problem, and the research aim and objectives. The chapter will also outline the subsequent chapters making up the structure of the dissertation.

### 1.2. Overview and Problem Statement

Anxiety has been recognised as an important public mental health issue in South Africa (Mosotho, Louw, & Calk, 2011). Many individuals with anxiety, however, often face challenges during their attempts to seek assistance (Kakuma et al., 2010; Sibeko et al., 2017). These challenges include, but are not limited to, high mental health care costs for the country, a shortage in trained mental health care professionals, and low accessibility and affordability of appropriate treatment interventions (Muriungi & Ndetei, 2013; Sibeko et al., 2017). There is also often a cultural stigmatisation associated with mental conditions, and an overall unimportance of teaching and promoting mental health in South Africa (Kakuma et al., 2010).

These challenges may lead to individuals being uninformed, unaware, or apprehensive about symptoms and suitable intervention options (Ruane, 2010; Sibeko et al., 2017). Individuals may subsequently develop an overall negative perception of anxiety and their future psychological well-being (Sibeko et al., 2017). Educating communities about mental health, specifically anxiety, is of great importance in the South African context. In addition, it would be imperative to identify suitable, accessible, inexpensive, and effective intervention options for managing anxiety (Prost, Musisi, Okello, & Hopman, 2013; Sibeko et al., 2017). Psycho-education is an intervention that involves educating individuals about their respective psychological condition. It may serve as a suitable addition and/ or alternative to the conventional interventions, psychotherapy and psychopharmacology, when these are not readily available (Zhao, Sampson, Xia, & Jayaram,

2015). Neuro-psycho-education is a novel approach of elucidating brain-based mechanisms of psychological conditions and situating this understanding within the participants (Miller, 2016). There are limited studies done that focus on psycho-education for anxiety in the South African context. Psycho-education, and specifically neuro-psycho-education, therefore, needs to be further explored for its utility for anxiety in the South African context.

## 1.3. Justification and Significance of Research

South Africans have been proven to have a high prevalence of anxiety (Herman et al., 2009; World Health Organization [WHO], 2017). Many individuals with anxiety live in under-resourced communities with low affordability and accessibility to mental health care (Mosotho et al., 2011). Education about psychological conditions is often limited, consequently leading to low understanding about anxiety and negative perceptions surrounding anxiety (Sibeko et al., 2017). The state of mental health and anxiety in South Africa can be improved through the development of interventions that are effective, convenient, accessible, and affordable (Muriungi & Ndetei, 2013; Sibeko et al., 2017). Practice and research surrounding psycho-education in South Africa is limited, and thus needs to be further explored in this context. The neuro-psycho-educational tool used in the present study is a vimeo, a short video, that describes the neural events that occur when an individual experiences and attempts to manage their anxiety. This vimeo was chosen due it's novel approach to psycho-education, as well as the need to explore the use of such tools in the South African context (Adams, Van de Vijver, & De Bruin, 2012).

## 1.4. Research Aim and Objectives

The aim of the study was to explore the utility of a vimeo, as a novel neuro-psycho-educational tool, for individuals with anxiety in the semi-urban South African context. The utility of the vimeo was explored through considering how individuals with anxiety, who attend a community mental health centre in an under-resourced community, relate to this neuro-psycho-educational tool. This exploration entailed determining the experiences of individuals with anxiety whilst watching the vimeo, as well as describing these individuals' perceptions and understanding of anxiety as it relates to the brain.

## 1.5. Nature of the Study

The research study was classified as qualitative, as both the data collection and analysis methods made use of qualitative design elements (Creswell, 2014). The participants chosen for the

study consisted of six adults presenting with anxiety-related symptoms and consequently attending the Itsoseng Psychological Clinic located in the semi-urban area of Mamelodi, Pretoria, South Africa. Informed consent was obtained, and socio-demographic information was collected. Thereafter the vimeo was shown to the participants and a semi-structured one-on-one interview was conducted to collect specific information required for the study. Finally, the textual data was analysed using thematic analysis.

## 1.6.Structure of the Dissertation

The remainder of this mini-dissertation will be divided into the following chapters:

- **Chapter 2: Literature Review**. This chapter examines the extensive literature on anxiety and psycho-education, with reference to the South African context. The theoretical underpinnings of the study are also discussed in this chapter.

- **Chapter 3: Methodology**. This chapter provides an in-depth description of the methodological endeavours used during this study. This includes the research design, sampling procedures, the instruments used, the procedure followed, and finally, the ethical considerations.

- **Chapter 4: Results**. This chapter presents a summary of the findings obtained after the data collection and qualitative analysis. Each theme discovered is briefly defined and described.

- **Chapter 5: Discussion and Conclusion**. This chapter integrates and discusses the findings from this research study, in relation to both the literature and the contextual background of the participants. The findings will also be discussed with the overall aim of the research in mind. The limitations of the study, and recommendations for future research, will also be deliberated.

**Chapter Two – Literature Review**

**2.1. Introduction**

The second chapter of this mini-dissertation documents important literature and background knowledge relevant to the research topic. The chapter begins with an overview of anxiety in the South African context, specifically relating to the state of mental health literacy and the attitudes and perceptions held by community members in this context. Psycho-education is then introduced and described as a cost-effective adjunct to conventional therapy in resource-limited settings. The relationship between anxiety and the brain is highlighted, leading to a discussion of the concepts of neuro-psycho-education and neuro-psychotherapy. The chapter then concludes with an overview of existing literature surrounding psycho-education and anxiety, with reference to neuro-psycho-education.

**2.2. Anxiety in the South African context**

The fifth and most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (2013) identifies anxiety as an umbrella term for disturbances often characterised by unpleasant autonomic, emotional, and behavioural responses to both real and/or perceived and current and/or future threats (American Psychiatric Association [APA], 2013). There are a wide range of anxiety disorders that, despite sharing basic characteristics, differ according to various factors. These factors include the target of the anxiety, the nature of the response, the severity of the condition, and the associated cognitive ideations, thoughts or beliefs (APA, 2013). Individuals experiencing anxiety may or may not be diagnosed with an anxiety disorder as per the DSM-5. A large portion of individuals experience anxiety in isolation in their everyday lives, or in comorbidity with other psychological conditions (Mosotho et al., 2011).

The World Health Organisation (WHO) (2017) acknowledges that anxiety and related emotions can often be beneficial in that they alert an individual of a potential threat in their environment, and consequently motivate goal-directed behaviour. It is, however, when these emotions persist beyond their usefulness and predominate one's mental state and behaviour, that they can cause psychopathology (Kindt, 2014; WHO, 2017). This may subsequently lead to detrimental effects on an individual's functioning.

According to the South African Depression and Anxiety Group (SADAG), South Africa's largest mental health support and advocacy group, there are many biological and environmental

risk factors associated with anxiety (Baxter, Scott, Vos, & Whiteford, 2013). These include a genetic predisposition, brain chemistry, personality types, and life experiences that instil anxious behaviours, amongst others (SADAG, 2018). South Africans are often susceptible to many daily environmental vulnerabilities; including unemployment, poverty, racial discrimination, gender inequality, and political, criminal and domestic violence (Atilola, 2015; McGowan & Kagee, 2013; Meinck et al., 2017). Anxiety is thus, specifically, high in the South African context (Herman et al., 2009; WHO, 2017).

Psychiatric conditions had undergone a global increase of 41% over a 10-year period since 1990, and an increase of 15% from 2005 to 2015 (Petersen et al., 2017; WHO, 2017). To the researcher's knowledge, lifetime prevalence data on psychiatric conditions in South Africa is limited. The South African Stress and Health (SASH) study performed in 2008 explored the prevalence of a multitude of different psychiatric disorders in 4351 adults across all racial and ethnic groups in South Africa. The study found that of all psychiatric disorders, anxiety disorders had the highest prevalence; making up 15.8% of the sampled population (Herman et al., 2009). According to 2015 statistics presented by the WHO (2017), there are an estimated 264 million individuals in the world living with anxiety. Up to 10% of the global population living with anxiety are from Africa (25.91 million) (WHO, 2017).

The most commonly used treatment interventions for anxiety is a combination of psycho-pharmacology and psychotherapy (Rossouw, 2013a; SADAG, 2018). Despite evidence that these interventions are highly effective in alleviating anxiety, they are not always readily accessible or affordable in many less socially and economically advanced countries (Atilola, 2015; Ikwuka et al., 2016; Sibeko et al., 2017). Ikwuka et al. (2016) found that only 35% to 50% of individuals with psychological conditions sought treatment in developed countries, and that this increases to 85% in developing countries. The SASH Study found that only 25% of the South African sample had received treatment for their psychiatric condition (Sorsdahl & Stein, 2010). Within the 80 day-treatment facilities available across South Africa, less than 1% of the population are treated. The treatment gap for many both diagnosed, or undiagnosed, with psychiatric conditions is thus particularly large in rural and semi-urban South African regions (Kazdin, 2015; Mosotho et al., 2011).

Large contributing factors to the treatment gap in South Africa include mental health stigma, low mental health literacy, the biomedical symptom orientation, low perceived need for treatment, and negative perceptions towards the effort required to promote mental health care (Petersen et al., 2017; Sibeko et al., 2017). According to the WHO's Global Mental Health Action Plan, lower resourced countries have attempted to address the treatment gap by adopting policies that incorporate mental health into general health care. Insufficient training and resources have, however, been reported to be the main reason behind South Africa not sufficiently implementing its mental health bill (Petersen et al., 2017). Less than 8% of the health expenditure budget has been allocated to mental health; with 67% of Gauteng's mental health budget devoted to psychiatric hospitals only (WHO, 2007). Mental health has thus emerged as low priority in South Africa.

### 2.2.1. Mental Health Literacy: Understanding of anxiety

A significant contributor towards the treatment gap in South Africa is mental health literacy; one's knowledge, skills and understanding of mental disorders, which can assist with their recognition, prevention, and management (Atilola, 2015; Sorsdahl & Stein, 2010). Mental health literacy describes the recognition of relevant symptomatology, knowledge into the causes and risk factors, acknowledgement of psychiatric conditions as medical conditions, and insight into the intervention options available (Furnham & Hamid, 2014). With an adequate level of insight into their condition, individuals are more likely to utilise the available resources and services and engage in prompt self-management strategies that can ameliorate symptoms before the onset of complications (Atilola, 2015). Evidence suggests that mental health literacy is particularly low in South Africa, which poses a dire threat to the long-term prognosis of those living with psychological conditions in this context (Furnham & Hamid, 2014; Sorsdahl & Stein, 2010).

According to the South African Federation for Mental Health (SAFMH), school-based education aimed to promote mental health literacy is limited in South Africa. It has only been presented in 51-80% of the schools in the Western Cape; while only 20% of the schools in the Free State, Gauteng, and North West provinces participate therein (Kakuma et al., 2010). Training of medical professionals in mental health is also inadequate. The WHO-Aims Report on Mental Health Systems in South Africa (2007) had reported that only a small proportion of training

received by healthcare professionals covers mental health. Only 21% of nurse training and 5.5% of doctor training involves mental health education (WHO, 2007).

Mental health literacy of multiple different anxiety disorders was assessed in a large-scale international study by Furnham and Lousley (2013). The overall recognition of anxiety disorders was poor and literacy levels varied across each disorder. Obsessive Compulsive anxiety disorders were highly recognised (64.7%), while recognition of Panic Disorder and General Anxiety Disorder were very low (1.3% and 2.8%, respectively) (Furnham & Lousley, 2013). It is noted that most research surrounding mental health literacy has been carried out in Western countries. Given the disparity in mental health care and the unique challenges faced in South Africa, it is expected that limited or inaccurate public mental health understanding is reported in this context (Furnham & Hamid, 2014).

A non-systematic review of mental health literacy in developing countries over a 14-year period from 2000 found that socio-economic background influences the publics' mental health literacy; with more urban and developed countries showing a deeper understanding of psychiatric conditions (Ganasen et al., 2008). A systematic review of community mental health literacy in sub-Saharan Africa done by Atilola (2015) reported low mental health literacy. The aforementioned review found that community members were generally unable to correctly identify psychiatric conditions based on the symptoms shown in vignettes (Atilola, 2015). The study, however, also emphasised the role of cultural nuances that falsely suggest low mental health literacy rather than simply alternative non-orthodox consideration of mental illness (Atilola, 2015).

It is important to consider the fact that mental health literacy is a multifaceted concept that often emerges from culturally-induced explanations and experiences (Atilola, 2015). This highlights the need to take caution of assessing mental health literacy based on international tools using Western concepts of mental illness. This study is cognisant of the multi-ethnic background of South Africa and seeks to explore the participants understanding of anxiety and the utility of an otherwise Westernised tool like the vimeo in shaping this understanding.

### 2.2.2. Community perceptions: Thoughts and feelings of anxiety

Mental health literacy, or more specifically, one's understanding of psychiatric conditions, is not the only influencing factor on mental health care access, provision, participation, and adherence (Sorsdahl & Stein, 2010). The perceptions that not only the general public, but also

individuals experiencing psychiatric conditions, have towards mental health serve as a major contributing factor to overall mental health care (Furnham & Lousley, 2013; Sorsdahl & Stein, 2010). These perceptions can include one's thoughts and feelings toward individuals with psychiatric conditions (what they are like), as well as towards psychiatric conditions in general (how these should be treated).

Destructive attitudes of community members towards mental illness can often cause harsh stigmatisation towards those with psychological conditions; leading to further discrimination, emotional abuse, an overall lack of community support, or even complete social rejection (Furnham & Lousley, 2013; Makanjuola et al., 2016). An individual experiencing such stigmatisation is likely to isolate him/herself and avoid health-seeking behaviours, inhibiting positive life opportunities and further perpetuating the psychological dysfunction (Idemudia & Matamela, 2012; Laher, 2014).

To the researcher's knowledge, there is once again limited exploration into the perceptions South Africans have towards individuals with psychiatric conditions, the role of these perceptions in the recovery process, and ways in which these negative perceptions can be defeated (Furnham & Hamid, 2014; Sorsdahl & Stein, 2010). Current research suggests that destructive attitudes of community members towards individuals with psychiatric conditions is quite predominant in the South African context (Atilola, 2015; Kakuma et al., 2010; Sibeko et al., 2017). A study by Sorsdahl and Stein (2010) investigated community attitudes towards psychiatric conditions and reported that 28% of the sampled South Africans believed that individuals with psychiatric conditions display foolish, dangerous, unpredictable and overall weak characters.

Idemudia and Matamela (2012) state that the attribution of a psychological condition usually defines the nature of the community's response. Conditions that are assumed to be out of an individual's control and responsibility, will usually elicit a pity response. Conditions that are assumed to be manageable, on the other hand, will elicit a resentful and angered response, due to the individual being deemed responsible for allowing the condition to pursue (Idemudia & Matamela, 2012). The study by Sorsdahl and Stein (2010) revealed that only 31% of the sampled community perceived psychological symptoms as real and serious conditions; these participants considered anxiety (particularly, post-traumatic stress disorder) as the least indicative of a psychological condition (Sorsdahl & Stein, 2010).

Only 47% of the participants in the Sorsdahl and Stein (2010) study considered anxiety-related symptoms as typical responses to everyday situations. This phenomenon of understating the pervasiveness of a psychiatric condition is known as "normalisation" (Paulus, Wadsworth, & Hayes-Skelton, 2015). Individuals with psychiatric conditions often normalise their own experiences as a way to comfort themselves into believing that their experiences are within the range of normal emotions and behaviours, and are naturally adaptive in the context of their life events (Paulus et al., 2015). There are, however, drawbacks in normalising psychiatric conditions. Individuals who fail to recognise their otherwise distressing symptoms as a serious problem requiring attention will ultimately fail to initiate help-seeking behaviour, thus leaving them untreated (Paulus et al., 2015). This phenomenon of normalising mental illness also highlights the important relationship between mental health literacy and perceptions; as failure to recognise the severity of distressing signals can be due to a lack of or misunderstanding of mental illness.

The very definition and presence of anxiety, its perceived aetiology, and the preferred method of treatment can vary significantly based on the way psychiatric conditions are conceptualised in a particular culture, community, or age group (Kakuma et al., 2010; Laher, 2014). The general public may have a limited understanding of anxiety, and consequently possess a negative outlook towards anxiety and/ or those with anxiety (Samouilhan & Seabi, 2010). It is thus important to consider the general level of understanding and the perceptions that individuals hold towards anxiety, as well as the ways in which these can be improved to enhance treatment access and participation.

Given the high prevalence of anxiety and its conceptual and intervention barriers, alternative and/or additional, brief, inexpensive, accessible, and effective interventions need to be explored and promoted (Atilola, 2015; Sibeko et al., 2017). This study, focusing on anxiety, is important to consider in order to understand the role of social issues and disparities on one's vulnerability and resilience to such psychopathologies. Research in this area is important for the planning and development of rigorous local evidence-based mental health services and policies. Incorporating mental health care into existing health systems can serve to improve the mental health services across South Africa.

**2.3.Psycho-education**

There are multiple different therapeutic approaches towards psychological conditions. Each different approach grants differentiating roles and responsibilities to those giving and receiving the intervention. A stereotypically Western psychological practice views the process of recovery as a series of steps controlled by a qualified mental health care professional (Laher, 2014). This would involve a formal diagnosis of the abnormality, the administration of a prescription, followed by stringent therapy performed on a regular basis for a fixed duration (McConnochie, Ranzijn, Hodgson, Nolan, & Samson, 2012). The process would usually conclude with the assurance that the patient reaches a state of being cured.

Later shifts in therapeutic practices recognised alternatives to the typical Westernised approaches. Psychotherapy has been reconceptualised towards an educational process; blending developmental, cognitive, and learning psychology theories (Australian Institute of Professional Counsellors [AIPC], 2014). This paradigmatic shift represents the roots of the Psycho-education Model, founded by Guerney, Stollak, and Guerney (1971). Psycho-education is a well-researched and long-used behavioural intervention method that offers individuals important information about specific psychological conditions (AIPC, 2014; Zhao et al., 2015). This information can include the nature, aetiology, and risk factors of the condition, as well as the symptomatology that is to be expected. It can also cover the  different intervention options available, how to access these, as well as explanations for the effectiveness of some of these interventions (Srivastava & Panday, 2017; Zhao et al., 2015).

Initially, the target of these interventions was the health care professionals; who acquire the necessary condition-specific knowledge to improve the quality of the care they provide. The emphasis later changed to these health care professionals developing teaching skills and transferring this information to the patients themselves (AIPC, 2014). This enhanced knowledge about one's own condition was believed to promote self-directed management and positive behavioural changes.

Anxiety, which is already characterised by apprehension, can become more pervasive when an individual is uninformed or misinformed about their condition. Previously disadvantaged community members in South Africa might not have been educated on important aspects of anxiety. These individuals might not understand the cause of their symptoms or the reasons they

should attend a psychological clinic for assistance (Kakuma et al., 2010; Kazdin, 2015). This lack of understanding could further promote feelings of hesitation and non-compliance towards the prescribed treatment. It could also lead to uncertainty surrounding one's long-term prognosis.

Through undergoing psycho-education and learning more about one's psychological condition, an individual may feel more in control of their condition and ultimately develop a more positive outlook (*Virtual Medical Centre*, 2014; Zhao et al., 2015). With this enhanced attitude, individuals may be more likely to improve their symptom recognition, engage in self-referral, explore self-management, increase treatment compliance, instigate expectations of change, and improve overall coping strategies (AIPC, 2014; Muriungi & Ndetei, 2013). From a theoretical perspective, psycho-education can influence one's thoughts and feelings, which can instigate internal changes that may translate into positive behaviour (Ndoja, 2012). Through this, psycho-education thus has the ultimate goal of recovering the lost perceived control that is usually associated with anxiety (Richards, 2013; Xia, Merinder, & Belgamwar, 2011).

Psycho-educational interventions are suitable for under-resourced communities as they can serve as both a first-step intervention, as well as an independent therapeutic program in its own right (AIPC, 2014). These interventions are inexpensive, easily accessible, and generally more convenient and flexible than many other conventional approaches (Ndoja, 2012). Psycho-education can be administered immediately after diagnosis, on a large-scale, and be delivered using a wide variety of different modalities (AIPC, 2014; Ndoja, 2012; Parikh et al., 2012). In additional to this, psycho-education might not always require the services of a trained mental health care professional (Kazdin, 2015).

With reference to the Psycho-educational Model, this study proposes that engagement with a psycho-educational tool may lead to positive client-centred outcomes. The psycho-educational tool presented in this study is a vimeo that focuses on the brain/ neural mechanisms of anxiety and situates this understanding within the participants. Due to this neuropsychological point of departure, the vimeo is classified as a neuro-psycho-educational tool and thus represents a novel education mode for mental health issues such as anxiety. Through watching the vimeo, participants would be presented with the opportunity to challenge their typical conceptualisations of anxiety and gain insight into divergent perspectives.

**2.4.Neuro-psycho-education and Neuro-psychotherapy**

The consideration and integration of neuroscience and neurobiology within clinical practice represents a fast-growing area in mental healthcare (Dahlitz, 2015; Miller, 2016). Psycho-education can further be described as a practice that "consists of sharing information with the client that is relevant to the specific area of concern" (Miller, 2016, p. 801). Neuro-psycho-education provides a way neurobiological information can be shared within a therapeutic setting so that clients understand the neurological processes underlying their mental functioning.

**2.4.1. Anxiety and the brain**

Anxiety can be conceptualised as a neurobiological condition, with the postulation that anxiety is a result of the following structural and functional changes and mechanisms in the brain:

- An ongoing anxious state of fear and dread causes a hyper-activation of the Amygdala, which subsequently increases in size (Karlsson, 2011). This stress response further activates the Hypothalamic-Pituitary-Adrenal axis (HPA axis); causing a change in neural blood flow and the release of the stress hormone, Cortisol (Voelkerer & Rossouw, 2014).

- An increase in blood flow to the right Prefrontal Cortex (PFC) leads to negative thought patterns, an inability to regulate the stress response, and the manifestation of physical and emotional symptoms (Miller, 2016; Rossouw, 2010).

- Avoidance behaviours and negative emotions cause an under-active left PFC, which consequently decreases in size (Karlsson, 2011). A disruption in this brain region ultimately leads to impaired cognitive processing and an inability to rationalise distress and anxiety-provoking situations (Rossouw, 2010).

- The behavioural neuroscientific principles of fear learning and memory serve to explain the generalisation of fear responses to otherwise irrational situations (Kindt, 2014).

**2.4.2. The sequential development of the brain**

The Triune Brain Model, developed by Paul MacLean (1990), provides a theoretical framework for understanding brain development and functioning. The model proposes a bottom-up development of the human brain; the Reptilian Complex was first developed, followed by the Paleomammilian Complex, and finally ending with the development of the Neomamillian Complex (Rossouw, 2011).

The Reptilian Complex comprises of the Brainstem, Pons and Diencephalon. These brain regions handle basic and primal bodily functions and behaviour (breathing, heart rate control, simple motor planning, and physiological manifestation of anxiety) (MacLean, 1990). The Paleomammilian Complex comprises of the limbic system (the Amygdala, Hippocampus, Thalamus, Hypothalamus, Septum and Cingulate Cortex). These brain regions refine basic functions so as to develop and expand social emotions and memory capacities (MacLean, 1990). Lastly, the Neomamillian Complex comprises of the frontal cerebral cortex (Neocortex). As the newest evolution of the brain, it confers complex cognitive processes and is thus only found in mammals. These processes include language, abstract thinking, sequential planning, perceptions, and the overall regulation of other functions (MacLean, 1990). Please refer to the figure below for a visual representation of the Triune Brain.
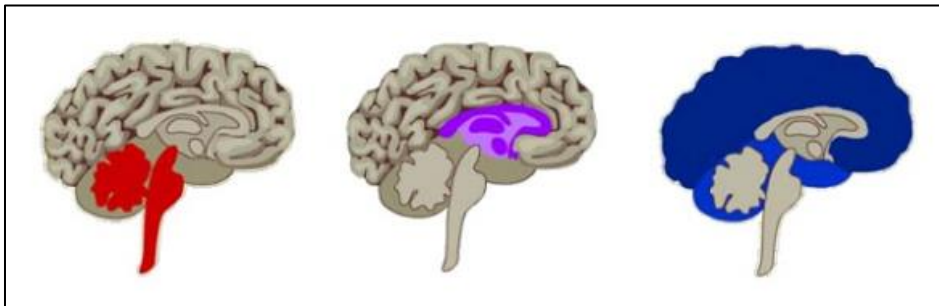


Figure 1.

*The Triune Brain, depicting the Reptilian Complex, Paleomammilian Complex, and Neomamillian Complex, respectively (Rossouw, 2011).*

The sequential development of these brain regions detects which functions humans are born with, and which are changeable throughout one's life. Active basic survival instincts are intact from birth, whereas higher cognitive processes are learnt behaviours. This entails that the process of considering the real threat behind external triggers, and regulating one's response to these threats, can be developed through interaction with the environment (Rossouw, 2011). The Triune Brain Model thus has implications for psychological intervention as it suggests that the important cognitive abilities, necessary for alleviating anxiety, can be learnt in a therapeutic environment. This is made possible through top-down neuro-psychotherapy.

### 2.4.3. Neuro-psychotherapy

Rossouw (2010) coined the term "neuro-psychotherapy" which recognises the biological aspect and neural underpinning of mental conditions, and thus incorporates neuroscience into psychotherapy. The nature of neuro-psychotherapy encompasses a calming, non-threatening, and approach-oriented therapeutic environment (Rossouw, 2013b). Neuro-psychotherapy has the ability to alter brain functioning through the practice of effective top-down regulation (Voelkerer & Rossouw, 2014). The frontal cortical brain regions (the Neomamillian Complex) regulate the hyper-excitable limbic system (the Paleomammilian Complex). This down-regulation of the already overactive HPA axis decreases the release of stress hormones and neurotransmitters, restores cortical blood flow to frontal brain regions, activates effective cognitive abilities, and consequently maintains a moderate state of arousal (Miller, 2016; Voelkerer & Rossouw, 2014).

This approach is believed to have the capability to lead to long-term neurobiological modifications, attributed to two neuropsychological processes; neurogenesis and neuroplasticity (Rossouw, 2010). Neurogenesis describes the formation of new neurons, while neuroplasticity describes the change in function and/or structure of existing neurons in the brain (Rossouw, 2010). Ultimately, neuro-psychotherapy enables changes in perceptions and understanding, instigates positive behavioural changes, and allows an individual to control their anxiety (Karlsson, 2011).

The neuro-psycho-educational tool (vimeo) used in this study was designed and created by Prof. Pieter Rossouw (School of Psychology, University of Queensland) with the principles of psycho-education and neuro-psychotherapy in mind. With reference to the above-mentioned brain complexes, the vimeo informs the viewer of three brain regions involved in anxiety and the effective top-down coping strategies that can be used to rationalise and overcome an anxiety-provoking situation (Rossouw, 2013b).

### 2.5. Psycho-education for anxiety

An extensive review of the literature (PsycINFO, PsycARTICLES, Academic Search Complete, and Education Resources Information Center) indicated a limited number of studies focusing on psycho-education for individuals with anxiety in the South African context. Psycho-education has been researched broadly in both the national and international context, targeting a wide range of different outcomes, across both clinical and non-clinical samples of participants (W.

T. Chien, Leung, & Chu, 2012; Shah, Klainin-Yobas, Torres, & Kannusamy, 2014; Shah et al., 2014; Taylor-Rodgers & Batterhamb, 2014; Walker et al., 2013; Zhao et al., 2015).

A large-scale meta-analysis performed by Zhao et al. (2015) and a large summary of research performed by Shah et al. (2014) explored the use of psycho-educational interventions for individuals with a variety of psychological conditions. The findings revealed that psycho-education led to enhanced knowledge, increased compliance to treatment, improved techniques for managing stress, lower relapse rates, lower incidences and severity of anxiety, as well as overall enriched mental state and functioning (Shah et al., 2014; Zhao et al., 2015). Prost, Musisi, Okello and Hopman (2013) performed research on individuals diagnosed with a variety of psychological disorders and attending a psychiatric clinic in a developing country. The results indicated that long-term psycho-educational sessions significantly improved knowledge of the respective condition and adherence to treatment (Prost et al., 2013). Separate studies done by Chien et al. (2012) and Walker et al. (2013) found similar results when exploring the effectiveness of psycho-education on individuals with psychiatric conditions.

A large-scale review, performed by Kazdin (2015), explored the benefits of psycho-education coupled with interpersonal psychotherapy. Not only did psycho-education significantly improve anxiety symptomatology, the intervention increased rates of recovery, reduced disability status, and limited the number of work days lost (Kazdin, 2015). Another study confirmed that one single brief psycho-educational intervention resulted in a 34% reduction in self-reported Anxiety Sensitivity; a risk factor for the development of anxiety disorders. The study found significant reductions in all physical, social, and cognitive sub-factors of AS (Norr, Gibby, & Schmidt, 2017).

Taylor-Rodgers and Batterhamb (2014) found that a brief online psycho-educational intervention administered to a non-clinical sample of participants resulted in increased anxiety understanding and literacy, reduced stigmatisation, and improved help-seeking attitudes and intentions. A separate study focusing on a non-clinical sample, explored the relationship between the format of the psycho-educational intervention and the motivation and adherence to complete a psycho-educational task (Alfonsson, Johansson, Uddling, & Hursti, 2017). The results indicated that intrinsic motivation had increased following the psycho-educational intervention; representing an internal and autonomous rationale for participating and completing the task (Alfonsson et al., 2017). This adherence was higher in face-to-face psycho-education, as opposed to passive online

psycho-education. These findings revealed that the success of psycho-educational interventions could be enhanced through providing the opportunity for self-discovery and autonomy that is associated with face-to-face interventions, rather than direct instruction (Alfonsson et al., 2017).

In further separate studies, Proudfoot et al. (2012) and Hawke et al. (2013) found significant improvements in anxiety symptomatology in individuals with bipolar disorder following psycho-educational programmes. Nicholas, Boydell and Christensen (2017) found that out of 24 bipolar disorder self-management strategies, 97% of patients endorsed psycho-education as an effective strategy. Focusing on mixed anxiety and depression patients, Bains, Scott, Kellet and Saxon (2014) found that psycho-educational interventions lead to reduced symptom scores and long-term improvements. At follow-up, 26.47% of anxiety patients were classified as fully recovered. The same outcome was not achieved with depressive symptoms, which may suggest that psycho-education is more effective for anxiety-related symptomatology (Bains, Scott, Kellet, & Saxon, 2014). Multiple studies have found significantly reduced anxiety in depressive patients following various psycho-educational interventions (Chiesa et al., 2015; Melo-Carrillo, Van Oudenhove, & Lopez-Avila, 2012; Patel et al., 2011). Positive outcomes associated with psycho-education for bipolar or depression included the following: significantly reduced anxiety symptomatology, increased perceptions of control, decreased perceptions of stigmatisation, increased adherence to treatment, and improvements in dysfunctional attitudes (Chiesa et al., 2015; Eker & Harkin, 2012; Hawke, Velyvis, & Parikh, 2013; Melo-Carrillo et al., 2012; Morokuma et al., 2013).

Not only do patients themselves stand to gain through exploration into their condition, but so do the other important participants in their lives, including caregivers and family members. These individuals often play demanding and stressful roles in the patient's lives. Without sufficient understanding of the condition, they are often susceptible to negative expressed emotions; criticism, hostility or controlling emotional over-involvement (Öksüz, Karaca, Özaltın, & Ateş, 2017). A number of studies found positive outcomes in family members and caregivers of patients with a variety of illnesses followed psycho-educational interventions (AIPC, 2014; Cristancho-Lacroix et al., 2015; Öksüz et al., 2017; Petrakis, Oxley, & Bloom, 2012).

Healthy indicators, such as problem solving, communication, affective responsiveness and involvement, behavioural control, and general functioning, all improved following psycho-

education (AIPC, 2014; Cristancho-Lacroix et al., 2015; Öksüz et al., 2017; Petrakis et al., 2012). Caregivers valued the opportunity to normalise their experiences and validate their feelings through engaging with others with similar experiences. This led to the caregivers experiencing reduced perceived burden through the development of appropriate coping strategies, and feelings of lower isolation, stress and anxiety (Chiang et al., 2016; Cristancho-Lacroix et al., 2015; Petrakis et al., 2012). Öksüz et al. (2017) attributed many of these benefits to improved, realistic and healthier attitudes towards the patient, allowing enhanced understanding of the cause, symptoms, and treatment methods associated with the condition. Caregivers also shared high satisfaction with the information received and suggested that information would be useful for patients themselves in terms of improving their acceptance of receiving a diagnosis (Chiang et al., 2016; Cristancho-Lacroix et al., 2015; Petrakis et al., 2012).

Qualitative explorations, done by Vallentine, Tapp, Dudley, Wilson and Moore (2010) and Nilsen, Frich, Friis, Norheim and Rossberg (2016), focused on the perceptions and experiences of individuals with psychiatric conditions following a group psycho-educational intervention. All participants deemed the learning experience valuable. Improved insight into the diagnosis, symptoms and treatment options assisted with their acceptance of the condition (Nilsen, Frich, Friis, Norheim, & Røssberg, 2016). Recognising early warning signs further lead to the acknowledgement of the need for support (Nilsen et al., 2016). Patients gained insight into how their condition has played a role in influencing their past and current behaviour, and how it could ultimately impact on their future (Vallentine, Tapp, Dudley, Wilson, & Moore, 2010). Greater problem solving and coping strategies were developed, which enhanced the patients' independence, responsibility and confidence for taking action for their own lives (Nilsen et al., 2016; Vallentine et al., 2010). Finally, better insight contributed to deeper communication about the condition within the family setting (Nilsen et al., 2016).

Another qualitative exploration of cancer patients' experiences of a psycho-educational support group was done by Shannonhouse et al. (2014). An important theme that was identified in this study was the emotional impact the psycho-education had on the individuals. Feelings of surprise, empowerment, and gratitude developed in response to the psycho-education; a change from the fear, anxiety, anger and resentment that was identified prior to the intervention (Shannonhouse et al., 2014).

**2.6.Summary**

     As seen from the above-mentioned literature review, a large portion of research on psycho-education has covered the efficacy of long-term group psycho-educational interventions focused on a wide variety of conditions (Al-yahya, 2014; Nicholas, Boydell, & Christensen, 2017; Proudfoot et al., 2012; Taylor-Rodgers & Batterhamb, 2014; Walker et al., 2013). Research exploring the qualitative responses of individuals with anxiety in response to brief psycho-education appears to be limited. The current study's point of departure will be to explore the vimeo from the perspective of the individual, in terms of its influence on perceptions, understanding and feelings of anxiety. This study will contribute to the limited body of research surrounding psycho-education and anxiety, with reference to the utility of a neuro-psycho-educational. Exploring responses to this vimeo can help direct the construction of novel and integrated (brain/ behaviour) psycho-educational tools to be used in both therapeutic and research settings. Important for the South African context, this study can propose a more accessible, affordable, and convenient addition to conventional interventions. The next chapter will focus on the methodological endeavours used during this study, including the research design, sampling procedures, instruments used, procedure followed, and ethical considerations.

**Chapter Three – Methodology**

### 3.1. Introduction

Chapter three describes the qualitative approach used to explore the utility of a vimeo as a neuro-psycho-educational tool for individuals with anxiety. The vimeo represents a novel education mode as it uses a simple narrative (story) and visual animation to explain typical anxiety responses from a neuro-biological perspective. The chapter begins with an outline of the research aim and objectives, as well as the research design of the study. The chapter will then describe the selection procedure which was employed and the participants who were used. The data collection procedure will then be described, followed by a brief definition of the data analysis method used. Finally, the chapter will conclude with the researcher's personal reflections of the research process and the ethical considerations that were made throughout the study.

### 3.2. Research Aim and Objectives

The primary aim of this research was to explore the utility of a vimeo, as a novel neuro-psycho-educational tool, for individuals with anxiety in the semi-urban South African context. This utility was explored through considering how individuals with anxiety, who attend a community mental health centre in an under-resourced community, relate to the vimeo. The study considered the following three research objectives:

- To describe the participants' understanding of anxiety and its relation to the brain,
- To describe the participants' perceptions of anxiety and its relation to the brain, and
- To determine the participants' experiences of watching the vimeo.

An understanding of anxiety refers to the factual knowledge regarding anxiety that one could possibly acquire from watching the vimeo. Perceptions of anxiety, on the other hand, can refer to both the cognitive and emotional aspect of anxiety, thus including one's thoughts and feelings in response to the vimeo (Miller, 2016; Tacca, 2011).

### 3.3. Research Design

The study was conducted within the framework of qualitative research, as this method of inquiry allows for an in-depth exploration into the subjective experiences of the participants. Contrary to quantitative research, the qualitative approach makes knowledge claims based on the constructivist philosophical paradigm (Creswell, 2014). These assumptions acknowledge that an

individual's experiences and perspectives are socially and historically constructed, and thus have multiple meanings (Clarke & Braun, 2013a). Exploring the participants' perceptions and understanding of anxiety thus requires a holistic approach that considers the participants' context (Clarke & Braun, 2013a; Creswell, 2014). The nature and severity of the participants' anxiety-related symptomatology, their cultural and social backgrounds, exposure to prior psychological treatment interventions, and their overall experiences may all play a role in the way these individuals think, feel and understand anxiety. The strategy of inquiry used in this study includes collecting open-ended, emerging textual data, through research interviews.

### 3.4. Participants

### 3.4.1. Participant Recruitment Process

The vimeo was to be explored from the perspective of young adults experiencing anxiety in the semi-urban South African context. These individuals were recruited from the Itsoseng Psychological Clinic, located in the semi-urban area of Mamelodi, Pretoria. This clinic, affiliated with the University of Pretoria, offers complementary psychological services to individuals within the community, whilst serving as training institution for student psychologists.

A non-probability purposive sampling technique was used to choose the participants for this study. This involved the researcher making a deliberate choice of participants, taking into consideration the nature of the information required and the type of individuals who could best provide such information by virtue of their qualities, knowledge, and/ or experiences (Etikan, Musa, & Alkassim, 2016). The following inclusion criteria was followed:

- The interview schedule asked participants to share information relating to their experiences of anxiety. The participants were, therefore, required to be experiencing some form of anxiety and/ or related symptomatology. No exclusion criteria were followed in terms of requiring a formal diagnosis of an anxiety disorder.
- Given that many of the clients attending the clinic included university students, the participants were to represent a young adult population. They were therefore required to be between the ages of 18 and 30 years.
- By virtue of the participants having attended therapy sessions in English, it was anticipated that they held a sufficient level of English language proficiency to understand the vimeo.

Language proficiency was thus not measured or listed as a criterion for inclusion in the study.

The director of the clinic was first approached for permission to access the database of potential participants and to conduct the research at the clinic. Please refer to Appendix A for the **permission letter**. Once approval was granted, the manager of the clinic, who oversees the intake of clients for therapy, agreed to assist with the recruitment process. The manager referred to the clinic's database to find individuals who met the inclusion criteria for the study. The manager made first contact with potential participants, and those who were interested provided permission for the researcher to contact them.

Though the participants were chosen based on the above-mentioned inclusion criteria, other factors also played a role in their inclusion in the study. The participants' willingness and availability to partake, the manager's opinions on the suitability of potential participants, as well as clinic therapists' overall recommendations were also considered. As will be mentioned in the limitations section, this type of non-probability purposive sampling technique runs the risk of bias, as the interpretation of the data is often limited to the specific representative population (Etikan et al., 2016). To ensure sound accuracy and credibility of the data, the researcher sought to choose participants as representative as possible of the young adult population living in semi-urban regions of South Africa. The participants' context and experiences will all be considered when exploring their thoughts, feelings, and understanding of anxiety.

### 3.4.2. Description of Participants

Six participants were recruited for participation in the study. These participants comprised of five female clients (83%) and one male client (17%). The participants were aged between 19 years and 29 years of age (mean age = 23 years). Most participants (83%) had completed matric as their highest level of education and are consequently attending a tertiary institution. All participants used English as their second language, with four participants (67%) undertaking English as a medium of instruction only during their tertiary education.

The participants' presenting symptoms ranged from generalised anxiety, stress, panic, and trauma. The participants' nature of intervention at the clinic ranged from having attended therapy only once to attending up to 12 times over a three-month period. The two participants who attended

the clinic only once have interacted with health care professionals outside of the clinic setting, with one participant currently making use of psychopharmacological interventions.

Table 1.

*Description of the research participants*

| Participant | Sex | Race | Age | Presenting symptoms |
|:---:|:---:|:---:|:---:|:---|
| 1 | Female | Black South African | 19 | Anxiety |
| 2 | Female | Black South African | 26 | Anxiety and Depression |
| 3 | Male | Black South African | 19 | Stress and Panic |
| 4 | Female | Black South African | 29 | Stress and Anxiety |
| 5 | Female | Black South African | 20 | Anxiety and Depression |
| 6 | Female | Black South African | 24 | Anxiety and Trauma |

**3.5.Data Collection Procedure**

The research took place in a secure office in the Administration building at the Itsoseng Psychological Clinic, on a day and time of each participant's convenience. The researcher engaged with each participant individually and face-to-face, and all interactions with each participant occurred on the same day.

Upon arrival at the clinic, each participant received a **participant information sheet** (refer to Appendix B). This contains important information about the research, what their involvement entails, and contact numbers of relevant individuals involved in the research. Each participant then signed the **informed consent form**, to confirm their voluntary participation, before any further interactions ensued. The **socio-demographic questionnaire** (refer to Appendix C) was then administered to each participant to collect important socio-demographic information used for descriptive purposes only (including the participants' gender, age, education level, employment status, and medium of instruction at home and across different schooling levels). The questionnaire also addressed details relating to the nature of the intervention they are receiving at the clinic. The duration of this first phase was approximately 15 minutes.

Upon completion of the first phase, the researcher presented the neuro-psycho-educational tool, by playing the vimeo off a laptop to the participant. This was followed by a semi-structured interview. This phase took between 30 and 45 minutes.

### 3.5.1. Intervention: The neuro-psycho-educational tool (Vimeo)

The neuro-psycho-educational tool used in this study is a two-minute forty-second video; available on the online video sharing platform "vimeo". The vimeo was provided with special permission for research use by Prof. P. Rossouw. This vimeo was chosen as a psycho-educational tool due to its novel approach to providing mental health related information to community members. As a neuro-psycho-educational tool, the vimeo explains typical anxiety responses using dynamic representations of brain systems and functioning. The vimeo represents a multi-sensory medium that utilises various animated characters in a narrative that deals with anxiety-provoking events and situations. In addition, the vimeo was created for use in an individualised western culture of Australia, which further substantiates the need for its exploration in the more collectivist culture of South Africa (Adams et al., 2012).

The vimeo tells the story of a young boy (Peter) with a phobia of dogs and explains the neural events that occur when he develops, experiences, and overcomes his anxiety. During an initial encounter with a dog, the ignition switch of the brain (Thalamus) incorporates all sensory information from the environment and activates the impulsive brain (the Amygdala and corresponding limbic structures) (Rossouw, 2011). These brain regions become over-active and cause the generalisation of anxiety across diverse situations with different dogs. The smart brain (PFC) is, however, able to control anxiety by communicating with the impulsive brain to rationalise the anxiety-provoking situation. The more the smart brain regulates the impulsive brain, the more control Peter has over his anxiety surrounding dogs. This resembles the effective top-down coping strategy that is proposed through neuro-psychotherapy (Karlsson, 2011). Please refer to the figure below for a depiction of the brain regions presented in the vimeo.
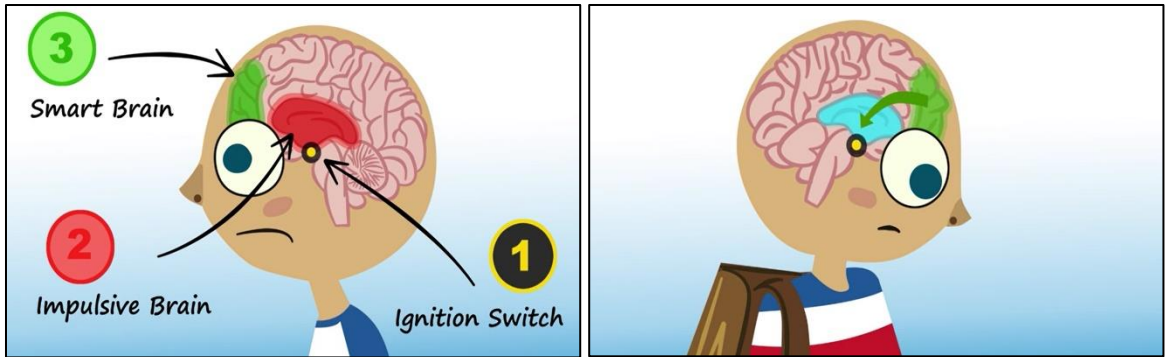
Figure 2.

*The brain regions involved in anxiety and the top-down coping strategy of neuro-psychotherapy.*
*(Images adapted from the vimeo provided by Prof. P. Rossouw, 2013).*

### 3.5.2. Semi-Structured Interviews

One-on-one semi-structured interviews were conducted to collect information relating to the participants' experiences while watching the vimeo, and their perceptions and understanding of anxiety. The researcher selected the semi-structured type of interview based on its flexibility. Through following a list of pre-determined questions, a semi-structured interview manages to cover specific topics. At the same time, however, through allowing the participant to share additional perspectives and stories, the interview can venture into new and/ or different directions (Doody & Noonan, 2013). Please refer to Appendix D for the **interview guide**.

### 3.6. Data Analysis Method

Once the interviews had been conducted, the researcher's next stages included transcribing, analysing and summarising the interview data, and reporting the findings (Rabionet, 2011). The method of analysis used in the study was Braun and Clarke's (2006) six-phase framework for thematic analysis. This is the process of systematically identifying patterns or themes within the textual data, and interpreting these themes to address the research objective (Alhojailan, 2012; Clarke & Braun, 2013a; Maguire & Delahunt, 2017; Vaismoradi, Turunen, & Bondas, 2013). The advantage of this method lies in its diversity and flexibility as it is not limited to any particular theoretical or epistemological perspective.

### 3.6.1. Phase 1: Familiarisation with the data

For the researcher to fully grasp, understand and become familiar with the data, it was important for her to actively engage with the data. This required the researcher to actively listen to

the audio-recordings, read through the transcriptions multiple times, as well as make thorough notes throughout the interview, transcription process, and each stage of analysis (Braun & Clarke, 2012).

### 3.6.2. Phase 2: Initial Coding

Once the researcher has familiarised herself with the data, this next phase involved the coding of the data. This entailed the researcher systematically reading through the data once again to identify patterns in the data that are relevant to the research topic (Braun & Clarke, 2006).

### 3.6.3. Phase 3: Searching for themes

The next phase involved the interpretive analysis through the development of 'themes' that represent pertinent pieces of data that meaningfully relate to the research topic. In order to acquire the themes, the researcher was required to search for relationships and similarities between the codes and categorise them accordingly (Braun & Clarke, 2006; Maguire & Delahunt, 2017).

### 3.6.4. Phase 4: Reviewing the themes

The researcher continuously reviewed and refined the themes to ensure that they were appropriate, relevant and coherent. This entailed assessing the quality of all data relevant to a theme; ensuring an appropriate relationship between each theme, its corresponding codes and data extracts, and the broader research topic (Braun & Clarke, 2006; Maguire & Delahunt, 2017).

### 3.6.5. Phase 5: Defining and naming the themes

Each theme requires a definition and title. This involved scrutinising each theme and determining its meaning and contribution to the research aim. This is necessary as it provides a quick and powerful overview of each theme and its essence (Braun & Clarke, 2006).

### 3.6.6. Phase 6: Writing-up and Reporting

Ongoing efforts throughout the research process are required on the part of the researcher to ensure high quality of the final research report. This involves the researcher making detailed and coherent research and reflective notes throughout the process, to ensure that all relevant information and extracts come together to support the results of the analysis (Creswell, 2015).

### 3.7. Researcher Reflections

The researcher went to various lengths to ensure that the qualitative component of the research was appropriately handled. To ensure sound, reliable results, certain requirements were

to be met. Amongst others, credibility and trustworthiness are of utmost importance in a qualitative study (Willig, 2012).

First and foremost, the use of the well-supported, widely-applied and highly-structured method of analysis in the field of psychology, thematic analysis, ensures credibility (Braun & Clarke, 2006). Secondly, the researcher committed to building trustworthiness and maintaining qualitative sensibility through carefully considering the approach she intended to use when engaging with the participants (Clarke & Braun, 2013a). A fair, ethical and moral standard was established, as would be required when interacting with participants and entering their personal worlds.

The researcher made a conscious effort to identify and reflect upon her own subjectivities (assumptions, values and prejudices), and mindfully set them aside so that the information she received was not shaped or misinterpreted in any way (Clarke & Braun, 2013a). The process of reflexivity, also known as 'Bracketing', is an important process for the researcher to delve into the worlds of the participants (Clarke & Braun, 2013a, 2013b; Willig, 2012).

The researcher first reflected on her own experiences with anxiety in ways that allowed her to be cognisant of what the participants were going through, without enforcing her own personal perspectives of anxiety. The researcher also critically reflected on her role as the researcher, as well as situations in which she was an insider or outsider in relation to the participant (Clarke & Braun, 2013b). She recognised that she may had been perceived as an outsider coming from a different cultural background to the participants. This awareness reiterated her efforts to be culturally sensitive and respectful through the process (Rabionet, 2011). She also recognised her similarities with many of the participants, in terms of age and occupation as students, and how these could have positively influenced their rapport.

### 3.8. Ethical Considerations

The researcher obtained ethical clearance from the Research Ethics Committee of the Faculty of Humanities at the University of Pretoria in January 2017; ethics reference number: 15367755 (GW 20170113HS). Please refer to Appendix E for a copy of the **ethics clearance certificate**. Following this, and as was mentioned in 3.4.1., the researcher obtained written permission from the director of the Itsoseng Psychological Clinic to access the database of potential participants and to conduct the research at the clinic.

A high ethical standard was upheld throughout the study. The basic rights of research participants relating to full disclosure, confidentiality, and absence of any harm were maintained. The participants were made aware of the nature of the study, signed written informed consent forms, and consequently agreed to participate in the study. The participants were reminded of the voluntary nature of the study and their right to withdraw at any time and agreed to have their interviews audio-recorded.

In order to ensure the protection from harm, any further referrals or recommendations for additional psychological assistance were made to the clinic. Confidentiality was ensured by removing the participants' names from all textual and audio data and replacing them with codes and dates. The researcher did not have access to any personal information other than what the participant was willing to share. The participants were made aware that the data will be stored in the university's psychology department for future research purposes for up to 15 years. The data was stored on a password protected computer for the duration of the study.

**3.9.Summary**

This methodology chapter provided a description of the qualitative research methodology and research design that was employed to explore the study's research aims and objectives. The chapter described the process that was undertaken to recruit the six participants from the Itsoseng Psychological Clinic. An in-depth discussion of the data collection procedure (semi-structured interviews) and the data analysis method (thematic analysis) followed. The chapter then concluded with a description of the researcher's efforts to maintain a high qualitative standard of the study, and the ethical considerations that were made throughout the study. The next chapter will focus on the analysis of the data obtained.

**Chapter Four – Results**

**4.1.Introduction**

The aim of the study was to explore how individuals with anxiety, who attend a community mental health centre in an under-resourced community, relate to a novel neuro-psycho-educational tool. Qualitative methods of both data collection and data analysis were used to explore the utility of the vimeo. Braun and Clarke's (2006) six-phase thematic analysis was used to analyse the interview data. The previous chapter provided an overview of thematic analysis, while Chapter Four will describe the analysis procedure followed during each of the six phases and report on the research findings (the data extracts, response codes, sub-themes, and themes).

**4.2.The analysis procedure**

**4.2.1.  Phase 1: Familiarisation with the data**

The first phase of Braun and Clarke's six-phase thematic analysis emphasises the importance of becoming familiar with the data (Braun & Clarke, 2012). To do so, the researcher payed close attention to the transcription process. Each interview audio recording was transcribed verbatim. This required repeated listening to the recordings to ensure accurate transcriptions. Each interview took approximately two-and-a-half hours to transcribe. The researcher also made notes during the interview and whilst listening to and transcribing the audio-recordings. These notes included observations and/ or patterns in the data that the researcher felt were important to consider during the analysis. Once the data was transcribed, the researcher read through the notes and transcriptions multiple times to further familiarise herself with the data.

**4.2.2.  Phase 2: Initial Coding**

During this second phase of analysis, the researcher began with the initial coding of the data. The researcher systematically read through the interview transcripts to identify patterns in the data that were relevant to the research topic (Braun & Clarke, 2006). The researcher followed an 'open-coding' process, whereby the codes were continuously developed and modified as she read through the data, rather than pre-determined through literature (Maguire & Delahunt, 2017). Each segment of relevant data was classified as a 'response code'. The researcher noted that particular data extracts could relate to more than one response code, and that particular response codes could share multiple different data extracts (Joffe, 2012). Please refer to the table below for a list of all response codes established during this phase. The sections to follow will provide the

28

supporting data extracts, however, please also refer to Appendix F for all response codes and their corresponding data extracts.

Table 2.

*Overview of the initial response codes*

| Number | Response Code |
|:------:|:--------------|
| 1 | Limited knowledge/ understanding about anxiety |
| 2 | Previous perception that anxiety difficult to manage |
| 3 | Previous feelings of a lack of control |
| 4 | Wanting to be in control of the situation |
| 5 | Learning that anxiety can be manageable/ changed |
| 6 | Learning that they can take control of their lives/ situation/ anxiety |
| 7 | Learning about the personal role of our brain/ mind in causing anxiety |
| 8 | Learning about the role of the brain/ mind in managing anxiety |
| 9 | Learning ways in which to deal with anxiety by staying calm |
| 10 | Learning to deal with anxiety by using a different approach to the situation |
| 11 | Learning to deal with anxiety by using positive thinking |
| 12 | Learning to deal with anxiety by being solution focused |
| 13 | Learning to deal with anxiety by using rational thinking |
| 14 | Learning that anxiety started early in life |
| 15 | Recognition that anxiety is not always rational |
| 16 | Anxiety is a broad and generalised condition |
| 17 | Vimeo reminds of one's own situation |
| 18 | Vimeo evokes anxious memoires/ feelings |
| 19 | Others can benefit from the vimeo |
| 20 | Anxiety is not their own fault |
| 21 | Future reference back to vimeo |
| 22 | Value in learning about the brain |
| 23 | Wanting to learn more from the vimeo |

### 4.2.3.  Phase 3: Searching for themes

This next phase involved a more interpretive analysis of the data and the creation of 'themes'. In order to develop the themes, the researcher searched for relationships and similarities between the response codes and categorised them initially into sub-themes and then into themes (Braun & Clarke, 2006; Maguire & Delahunt, 2017). These themes represent meaningful pieces of data that are expressively related to the research topic.

*Creation of the first theme*

The first observation the researcher made was that many participants shared that they had little understanding or knowledge about anxiety, it's causes and the various ways it could be managed. This was represented by the first response code which was then classified as an over-arching sub-theme entitled, '***Limited knowledge/ understanding about anxiety***'. This sub-theme is illustrated by the following quotations:

> *"I didn't know that it comes from our brain, or that it comes from our mind, I didn't know that it was created when we were younger. I didn't know, actually, I didn't know much about it."* – Participant 2

> *"To be honest, I didn't know that whatever I went through, it's called anxiety. Yes… [sic] Today. You just gave me a name of what I went through. I didn't know the name of what went through in the past."* – Participant 6

When asked for feedback on the vimeo, many participants shared that their favourite parts were those that had taught them information about anxiety that they had previously not known (Response code 22). They shared their enjoyment when learning not only more about anxiety, but its relationship to the brain. Some responses by the participants when asked which their most enjoyable parts of the vimeo are:

> *"The part about like, your brain, using your brain and stuff, like… How your brain works… [sic] The part that like, where they explain the brain, like how the brain works. Like yah, if you use your, you know, smart brain and stuff… [sic]"* – Participant 3

> *"That one of the brain. The different brains… [sic] The way they function"* – Participant 1

Further feedback on the vimeo included the participants showing interest in deepening their knowledge and understanding about anxiety. Not only did they value the information they had learnt, but they wanted to learn more from the vimeo, both in general and specifically relating to the brain's role in anxiety (Response code 23). Some examples of data extracts linking to these codes are:

*"I would add more information… [sic] Yah, like methods you can use, maybe, like if you find yourself in that situation."* – Participant 3

*"It was a bit too short and more maybe information on the brain and maybe other parts of the brain that affect…"* – Participant 5

*"Could I say… it can be changed by giving more details about it and the symptoms and… also on how to deal with it, and how to control it… [sic] How to control it, how do I get over it? Howe do I use it? How do I understand my smart brain?"* – Participant 2

These two response codes were thus merged to create the sub- theme entitled, '***Interest in learning about the brain and anxiety***'. The table below represents how the two sub-themes reported above were merged to create the theme entitled, '**Knowledge acquisition'**.

Table 3.

*Overview of theme one and its sub-themes and response codes.*

| Response Code | Sub-Theme | Theme |
|---|---|---|
| Limited knowledge/ understanding about anxiety | *Limited knowledge/ understanding about anxiety* | **Knowledge acquisition** |
| Value in learning about the brain | *Interest in learning about the brain and anxiety* | |
| Wanting to learn more from the vimeo | | |

***Creation of the second theme***

The participants shared their new understanding of anxiety that has ultimately shaped their perceptions of the development of anxiety. Firstly, the participants shared new insight into how anxiety does not always develop due to an external trigger but may arise prenatally or in childhood (Response code 14). Secondly, the participants indicated that they learnt about irrational fears often

triggering anxiety responses (Response code 15). These two observations from the data led the researcher to create the sub-theme entitled, '***Insight into the dispositional element of anxiety***'. Below are data extracts related to this sub-theme:

*"Maybe that part of maybe like experiencing things from a young age, like they tend to build up and stuff… Yeah, that was like a new thing for me, I didn't like really have an insight about that."* – Participant 3

*"I like that it explained from birth, because with most people we think that maybe it affects you from age 16, or it's because, it's because maybe sixteen-year olds are able to maybe talk and tell you that they're anxious. And I feel like a lot of people are not aware that you can have, maybe a 6-year-old that has anxiety… But you won't be able to see because we don't know much about depression and anxiety."* – Participant 5

*"That we are born with this, what do you call it, trigger something… [sic] The ignition switch. And that whatever the reaction we get from a young age, from our surroundings, will affect us even in years to come, up until you, at a point where you understand why certain things happen, and you know how to deal with them without being anxious."* - Participant 4

*"[sic]… like because now like you are able to use your mind to kinda like cope with that anxiety… Because anxiety [inaudible]… there are things that you make up in your mind, they're not really there… You make up like in your mind, they're your fears but then you create them all as if they are happening."* – Participant 3

*"It's that we as people cause anxiety to ourselves. It's not something that… I wouldn't say it's a condition that you just wake up with, it's just something that you keep on nursing, and it grows to become this anxiety of which, in essence, it really was nothing, if you learnt to deal with it in a different way."* – Participant 4

*"[sic]… most of the time it's not even a big deal as I make it to be. And I'll stop blaming myself because sometimes I feel like I… I maybe triggered it from the first place."* – Participant 5

The participants also shared that they gained valuable insight into the important relationship between the mind and brain (the smart brain) and anxiety, and the role of the brain in developing and managing their anxiety (Response codes 7 and 8, respectively). These were joined to create the sub-theme entitled '***Insight into the relationship between the brain and anxiety***'. Please see related data extracts below:

*"I could say it taught me that we are the ones who are creating it through our minds, through our impurity mind, and through this, and then the smart brain is the one that creates it… [meh] I didn't consider it that it comes through our mind. That's what I, I didn't know that we are the ones creating it."* – Participant 2

*"It can be manageable… [sic] The smart brain, it tells my… that other brain… that no, this thing can be changed."* – Participant 1

*"He was a lot younger, and then he has a bad experience. But his smart mind told him that the dog is friendly, it's nice. As you grow up, I think you also have to change your mind."* – Participant 2

*"I learnt more about that and how as you grow up the smart brain develops and then as you use it more, your brain gets used to using the smart brain… because as, when he was playing with the dog I could see that 'Ok the impulse was a bit overshowed by the smart brain'… That's why he was able to react in a positive way with the dog."* – Participant 5

*"As the video explains, anxiety is something that you can control using your smart brain… [sic]"* – Participant 3

*"It does, definitely. It makes me feel a whole lot better because now I think I have a better understanding of how to deal with the, with other situations in my life. To use my smart brain more instead of letting things trigger me a lot and eventually for me to explode."* – Participant 4

Finally, the researcher placed five response codes under the sub-theme entitled, '***Insight into the psychological strategies of managing anxiety***'. These response codes include: Learning ways in which to deal with anxiety by staying calm (9), by using a different approach to the situation (10), by using positive thinking (11), by being solution focused (12), and by using rational

thinking (13). Below are some psychological strategies which the participants suggested may help them manage anxiety:

*"Every time like I feel this thing coming, like I try to calm myself down. Yes. Take deep breaths myself."* – Participant 3

*"I learnt a lot. Yeah. Like what causes anxiety and how you can avoid it, how you can calm it down, and yeah."* – Participant 4

*"I've learnt that if something did hurt you in the past, it doesn't mean that it's going to hurt you in the present. Yes, so whenever you see that thing you have to relax, until that thing shows the true colours. Yes, that's why you can relax… You don't have to jump whenever you see a dog, or run whenever you see a dog… Some dogs are friendly."* – Participant 6

*"Like it shows that if you do this, like if you calm yourself down and realise that, ok, this might not be like a life-threatening situation, and kind of self-doubt, and then it can be fine. So it has a positive message, yeah."* – Participant 3

*[sic]…I'll start reacting differently to situations instead of just panicking first and then breathe and then… So I think I'll go straight to maybe counting from one to ten, try to calm down and then look at the situation again instead of panicking, because my mind just got used to jumping straight to panic."* – Participant 5

*"[Sic] The brain got used to me panicking to everything. If I can just come back, maybe turn things around and then train my brain to calm down first or look at the situation in a different way, and the more I practice this the more I am gonna get used to it."* – Participant 5

*"[Sic] Every time you experience anxiety, you don't then have to give in, you can just relax and then think of the positives, then you can manage it yeah."* – Participant 3

*"I'll think about this video, and how to change the negative thoughts into good thoughts"* – Participant 1

*"So it's first panic and then moving on to the solution. And what I've been trying to do is not panicking, moving straight to the solution."* – Participant 5

34

*"I'll think the situation through first instead of panicking. Because most of the time it's not even a big deal as I make it to be".* – Participant 5

These three sub-themes describing the insight participants gained into the dispositional element of anxiety, the relationship between the brain and anxiety, and the psychological strategies of managing anxiety, led the researcher to realise that the participants gained insight into the '**Embodied mind and brain'**. Thus, the researcher created this as a theme as per the table below.

Table 4.

*Overview of theme two and its sub-themes and response codes.*

| Response Code | Sub-Theme | Theme |
|---|---|---|
| Learning that anxiety started early in life | *Insight into the dispositional element of anxiety* | |
| Recognition that anxiety is not always rational | | |
| Learning about the personal role of our brain/ mind in causing anxiety | *Insight into the relationship between the brain and anxiety* | |
| Learning about the role of the brain/ mind in managing anxiety | | **Embodied mind and brain** |
| Learning ways in which to deal with anxiety by staying calm | *Insight into the psychological strategies of managing anxiety* | |
| Learning to deal with anxiety by using a different approach to the situation | | |
| Learning to deal with anxiety by using positive thinking | | |
| Learning to deal with anxiety by being solution focused | | |
| Learning to deal with anxiety by using rational thinking | | |

### *Creation of the third theme*

The participants shared the perceptions they held prior to watching the vimeo. This related to the manageability of anxiety and their own perceived role in anxiety. The participants shared that they had previously believed that anxiety was not a manageable condition (Response code 2). They did later, however, acknowledge that from watching the vimeo, they learnt that anxiety can in fact be managed (Response codes 5). '*Hope and Encouragement'* was thus created as a sub-theme, with related data extracts below:

35

*"So, it's like, being affected by pressure, a lot of things, thinking a lot, ya… [sic] Mmm, yes… That you can't control… [sic] Very difficult to manage"* – Participant 1

*"Uhm, I felt like change, like anxiety can be something else, can be changed… [sic] It made me feel happy… [sic] Because I never thought anxiety can be solved, and now as I was seeing the video, then yah."* - Participant 5

*"It can be manageable… [sic] The smart brain, it tells my… that other brain… that no, this thing can be changed."* – Participant 1

*"Now… Hhmm… About anxiety. No longer will I have anxiety… What I can say is that you can manage it. Yeah. Like there are ways that you can manage anxiety, like it can never like, I know anxiety, to control of your life… You can actually manage it."* – Participant 3

*"Yes, it can be manageable. It doesn't mean that if you have anxiety it's the end of the world. You can manage it and I know that when you practice something, you practice the brain gets used to whatever you're doing."* – Participant 5

*"I think the video also had that impact. It tells me that even if you're old, even if you're gonna be older, you can still have change of mind, and see things differently."* – Participant 2

'***Sense of control***' also became a noteworthy sub-theme in the data. Firstly, the participants shared that because they had thought they could not manage their anxiety, they felt helpless and out of control (Response code 3). They also shared wanting to be in control of their situation (Response code 4). After watching the vimeo, the participants admitted that they felt they could be more in control of their lives due to the insight they gained into the role they can play in managing their anxiety (Response code 6). Some examples of data extracts linking to this sub-theme are:

*"It's panic and predicting the future, that 'Ok I won't be able to do this. I won't be able to deal with this situation. I'm gonna need help with, or I'm going to start crying', or it's just always panic and feeling like you're out of like, the situation is out of your control."* – Participant 5

*"[sic]… When you get this anxiety and stuff, panic attacks, you feel like you are, you are going crazy, like you are losing your mind. So, you can't handle certain things."-* Participant 3

*"[Sic]… it's just always panic and feeling like you're out of like, the situation is out of your control."* – Participant 4

*"[sic]… I was always alone so I just felt like everything is just out of control."* – Participant 5

*"I feel like right now, I feel like I'm the one who's in control, so I can change it… [sic] From the video, it really shows that it is my mind, it is my mind, my mind is the one that I am in control"* – Participant 2

*"Now… Hhmm… About anxiety. No longer will I have anxiety… [sic] I know anxiety, tries to control of your life… You can actually manage it… [sic] The minute you face your fears I think, I think becomes better"* – Participant 3

*"The last part where the boy has grown and now he has learnt how to deal with the fear that was instilled in him of dogs… [sic] I think that's the part that I liked the most, it just teaches you something that you can, you are smarter than anything that'll come your way"* – Participant 4

A third sub-theme was created through the participant sharing a '***Relief of guilt***' that they were not personally responsible for their anxiety. One participant reflected on the triggers that were activated in the brain and shared that she no longer felt responsible for causing her anxiety and thus no longer blamed herself. Another participant mentioned a benefit of the vimeo in suggesting that anxiety is not one's own fault. A third participant shared that learning how the brain works was his favourite part of the vimeo, as it gave him relief from his previous perceptions that he was 'going crazy' when experiencing anxiety. Some examples of data extracts linking to these codes are:

*"I'll think the situation through first instead of panicking. Because most of the time it's not even a big deal as I make it to be. And I'll stop blaming myself because sometimes I feel like I… I maybe triggered it from the first place. I feel like maybe I stress too much,*

*or maybe I don't sleep enough… Or maybe it's because I don't exercise. Also, I will stop blaming myself."* – Participant 5

*"I think they could benefit from it by knowing that it was something that was… they got it from when they were a lot younger, and then that it is not their fault, and then they can still change…"* – Participant 2

*"The part about like, your brain, using your brain and stuff, like… How your brain works, because like when you get this anxiety and stuff, panic attacks, you feel like you are, you are going crazy, like you are losing your mind. So, you can't handle certain things. If a person like, talks about a certain thing, like maybe… Yoh, this guy is crazy, then you start thinking about that you're crazy, crazy, like I'm going crazy. Yeah, so…"* – Participant 3

Patterns observed in the data, relating to the participants' hope and encouragement to manage anxiety, their new sense of control, and feelings relief and reduced guilt, aligned with theme of empowerment. The concept of the vimeo enabling a sense of empowerment within the participants lead the researcher to create the theme entitled, '**Sense of Empowerment**' shown in the table below.

Table 5.

*Overview of theme three and its sub-themes and response codes.*

| Response Code | Sub-Theme | Theme |
|---|---|---|
| Previous perception that anxiety difficult to manage | *Hope and encouragement* | |
| Learning that anxiety can be manageable/ changed | | |
| Previous feelings of a lack of control | *Sense of control* | **Sense of Empowerment** |
| Wanting to be in control of the situation | | |
| Learning that they can take control of their lives/ situation/ anxiety | | |
| Not their own fault | *Relief of guilt* | |

*Creation of the fourth theme*

The researcher realised that the utility of the vimeo is much broader than previously anticipated. Many participants shared that they could relate to the vimeo as it reminded them of their own anxiety (Response code 17) and thus evoked strong emotions when seeing another person experience the same (Response code 18). This resulted in the sub-theme entitled, '***Vimeo is relatable***'. Please see corresponding data extracts below:

*"Ok, I guess. But one thing that I learnt… Whatever the thing that hurts you in the past, you'll never forget it… [sic] I thought, for myself, I could see that I cannot forget what I went through, and whether it feels pain. Like forgetting something that you went through, especially if you were young, it's kind of difficult."* – Participant 6

*"You know it kinda like reminded me of my situation and stuff, yeah. Like there are things that I went through, like… I sit and just think about things that happened to me. And like, like, experience those feelings again."* – Participant 3

*"Uhm, when I actually saw the dog approaching, I actually felt like 'Ok, OMG here's the danger'… So, I got the impulse kicked in and then I saw that there's danger."* – Participant 5

The participants proposed that whilst the vimeo may benefit themselves, it has the additional ability to provide benefits to others as well (Response code 19). The participants added that various individuals, experiencing different forms of anxiety, could equally relate to the vimeo based on anxiety being a broad and generalised condition (Response code 16). Some examples of data extracts linking to these codes are:

*"I believe that everyone goes through that [anxiety] at some point. Yeah, so yeah. I think it [the vimeo] could be used, yah."* – Participant 3

*"I think they [others watching the vimeo] could benefit from it [the vimeo] by knowing that it [anxiety] was something that was… they got it from when they were a lot younger, and then that it is not their fault, and then they can still change… [sic] They [others watching the vimeo] will feel the same way. I think it [the vimeo] will change the way they think about anxiety"* – Participant 1

39

*"I think I will handle situations better now and I think it also makes a lot of sense because they said this ignition thingy, it grows more when you're 3 years old. And like I have a 4-year-old daughter so I know now how to deal with her in certain situations so that she would not get to the point where she's anxious too."* – Participant 4

*"… [sic] So that's when I saw that it affects everyone… there were white and black people, there were male and female… Young and old… People with kids, people who are still in school, people who have retired… So that's when I saw that it affects anyone, anywhere."* – Participant 5

*"Yes, because it doesn't… Anxiety, it's not like based on one thing, it's generalised, so whenever you watch it… [sic] So the dog triggering him, it could be anything triggering someone. Yes."* – Participant 6

These response codes speak to the '***Distal influence of the vimeo***', describing both the direct benefit that others could experience by watching the vimeo and gaining the same insight the participants had, as well as the indirect benefit that could arise when the learnings and insight from the vimeo are shared with others. The researcher thus created this as a second sub-theme.

A third sub-theme entitled '***Vimeo as a tool for future anxiety***' was then created based on many participants sharing that should they feel anxious again in the future, they would think back to the content and learnings of the vimeo to assist them in managing the situation (Code 21). Participants shared the following:

*"I'll think about this video, and how to change the negative thoughts into good thoughts"*
- Participant 1

*"Yah, it [the vimeo] can calm me down, because, like, it has a positive message. Yah. Because if you can see… at the start of the video, it talks about like [sic]… how anxiety is like… how the past experiences like can influence what you are feeling now, and then at the end of the video, like it shows that if you do this, like if you calm yourself down and realise that, ok, this might not be like a life threatening situation, and kind of self-doubt, and then it can be fine. So, it has a positive message, yeah."* – Participant 3

The researcher concluded that the appeal of the vimeo was quite extensive and thus created a new theme entitled, '**Broad utility of the vimeo'**. This theme shown in the table below covers the vimeo being highly relatable, providing a distal influence, and serving as a tool for future anxiety.

Table 6.

*Overview of theme four and its sub-themes and response codes.*

| Response Code | Sub-Theme | Theme |
|---|---|---|
| Realisation that anxiety is broad and can affect anyone | *Distal influence of vimeo* | **Broad utility of the vimeo** |
| Others can benefit from the vimeo | | |
| Vimeo reminds of one's own situation | *Vimeo is relatable* | |
| Vimeo evokes anxious memoires/ feelings | | |
| Future reference back to vimeo | *Vimeo as a future tool* | |

### 4.2.4. Phase 4: Reviewing the themes

The fourth phase of Braun and Clarke's six-phase thematic analysis involves the critical reviewing of the themes and sub-themes that were developed. The researcher made detailed and coherent research and reflective notes throughout the analysis process, which assisted her in not only analysing the data, but also in reviewing the findings and compiling this research report (Rabionet, 2011).

The researcher reviewed each theme identified in the previous phase by going through all the data that is relevant to each theme. The researcher ensured that each identified theme links back to its sub-theme(s), where applicable, and then back to its response codes and data extracts (Clarke & Braun, 2013b; Creswell, 2015). The researcher assured appropriate relationships between the results of each level of analysis, the internal coherence within each theme and strong distinctions between each theme, as well as the relevance of each theme to contribute to the exploration of the vimeo's utility (Maguire & Delahunt, 2017; Ruggunan, n.d.). Please refer to the table below for an overview of the final themes, sub-themes, and response codes of the study.

Table 7.

*Overview of the final themes and sub-themes*

| Theme | Sub-Theme | Response Codes |
|---|---|---|
| **1. Knowledge acquisition** | *Limited knowledge/ understanding about anxiety* | Limited knowledge/ understanding about anxiety |
| | *Interest in learning about the brain and anxiety* | Enjoyment when learning about the brain |
| | | Desire to learn more information from the vimeo |
| **2. Embodied mind and brain** | *Insight into the dispositional element of anxiety* | Learning that anxiety started early in life |
| | | Recognition that anxiety is not always rational |
| | *Insight into the relationship between the brain and anxiety* | Learning about the personal role of our brain/ mind in causing anxiety |
| | | Learning about the role of the brain/ mind in managing anxiety |
| | *Insight into the psychological strategies of managing anxiety* | Learning ways in which to deal with anxiety by staying calm |
| | | Learning to deal with anxiety by using a different approach to the situation |
| | | Learning to deal with anxiety by using positive thinking |
| | | Learning to deal with anxiety by being solution focused |
| | | Learning to deal with anxiety by using rational thinking |
| **3. Sense of Empowerment** | *Hope and Encouragement* | Previous perception that anxiety difficult to manage |
| | | Learning that anxiety can be manageable/ changed |
| | *Gaining a sense of control* | Previous feelings of a lack of control |
| | | Wanting to be in control of the situation |
| | | Learning that they can take control of their lives/ situation/ anxiety |
| | *Sense of relief of guilt* | Not their own fault |
| **4. Broad utility of the vimeo** | *Distal influence of vimeo* | Realisation that anxiety is broad and can affect anyone |
| | | Others can benefit from the vimeo |
| | *Vimeo is relatable* | Vimeo reminds of one's own situation |
| | | Vimeo evokes anxious memoires/ feelings |
| | *Vimeo as a future tool* | Future reference back to vimeo |

### 4.2.5. Phase 5: Defining and naming the themes

All the themes were then refined by reviewing the title and description for each theme; ensuring that it provided a sufficient overview of each theme's meaning and significance in contributing to the research aim. A brief description and overview of each theme is provided below.

#### *Knowledge acquisition*

This first theme identified the pattern whereby many participants were not fully knowledgeable about anxiety, its various facets, and how they recognised anxiety through their own symptoms. Coming from a perception with little awareness of anxiety, these participants saw value in the vimeo as it provided them with more information about anxiety and its relationship with the brain. The vimeo not only allowed the participants to gain a deeper understanding of anxiety, but also enticed the participants to enjoy the learning process and want to learn even more.

#### *Embodied mind and brain*

This second theme emphasises the value of the vimeo in providing the participants with insight into the important role of the mind and brain in understanding anxiety. The participants shared their learnings that the brain may cause anxiety to develop from a young age or from birth. The vimeo also provided the participants with insight into the neural processes that lead to anxiety, as well as the strong influence the mind has over the perceived level of threat of an external trigger of anxiety. In addition to learning about the embodied causes of anxiety, the participants shared their new understanding of the neural processes that occur when one manages their anxiety through various psychological strategies in the mind.

#### *Sense of empowerment*

The third theme speaks to the important role of the vimeo in providing the participants with a sense of empowerment. The participants shared many feelings and perceptions they had prior to watching the vimeo and suggested the ways in which the vimeo may have challenged these perceptions. Prior perceptions shared by the participants included not being able to manage their anxiety, feeling out of control, and experiencing responsibility for their anxiety. The participants suggested how the vimeo's insight into the various triggers of anxiety and ways of managing anxiety has made them feel less guilty and more in control.

*Broad utility of the vimeo*

The fourth and final theme speaks to the utility of the vimeo in being quite broad. The participants shared how the vimeo was very relatable, as the narrative linked to their own experiences of anxiety and provided them with a sense of familiarity. As a relatable tool, the participants added that the vimeo could be used for individuals with a wide range of anxiety triggers and thus could provide a distal effect. Finally, the vimeo was perceived as useful as it not only provided immediate benefits for the participants but could also be referred to in the future when one is feeling anxious.

### 4.2.6. Phase 6: Writing-up and Reporting

During the final phase of conducting thematic analysis, the researcher is required to provide an in-depth research report. Such report would essentially need to include a discussion and interpretation of the research findings as they relate to previous literature and to the research aim. This process will be done in the following chapter.

### 4.3.Summary

This chapter contains the research findings from the analysis of the interview data collected throughout this study. These results articulate the important perspectives of the participants as they provide feedback on the vimeo. The next chapter will focus on an in-depth discussion and interpretation of these findings, particularly with regards to the utility of the vimeo in this context and in relation to previous literature.

**Chapter Five – Discussion and Conclusion**

**5.1. Introduction**

This chapter provides an in-depth interpretation of the research findings presented in Chapter Four. The qualitative results will be discussed as they relate to the literature and to the research objectives of the study. The limitations of the study and future recommendations will also be considered. The chapter is concluded with a final summary and conclusion of the overall study.

**5.2. Discussion of the themes elicited during this study**

Four main themes were identified through the analysis process. The value of the vimeo for the participants was identified in terms of promoting knowledge acquisition, emphasising the embodied mind and brain, providing a sense of empowerment, as well as having a general application for various types of anxieties and individuals. The results thus show that the participants had a positive opinion about the vimeo as a tool for understanding and perceiving their anxiety. The four main themes will be discussed as they relate to the literature and the utility of the vimeo.

**5.2.1.  Knowledge acquisition**

Many of the participants acknowledged that they had limited understanding of anxiety prior to having watched the vimeo; with one participant mentioning that she was able to recognise her symptoms but could not label them as 'anxiety'. These findings are consistent with much of the current South African literature exploring low mental health literacy in this context (Atilola, 2015; Furnham & Hamid, 2014; Ganasen et al., 2008). This first theme speaks to the vimeo's capacity to provide the viewer with important information about the psychological condition they are experiencing. This lies at the crux of the main goals of psycho-education (AIPC, 2014).

Not all South African cultures are accustomed to Westernised psychological practices, with some relying on exposure to more traditional healing practices. A study by Makanjuola et al. (2016) found that the identification and definition of psychological conditions is qualitatively different in traditional healing approaches compared to Westernised approaches. Non-psychotic symptomatology is not always identified as signs of true mental illness, but rather as typical responses to everyday social and personal stressors (Makanjuola et al., 2016; Sorsdahl, Flisher, Wilson, & Stein, 2010). Many individuals may therefore not recognise the severity of their symptoms and consequently not engage in help-seeking behaviour. The vimeo serves as a new

source of information that the participants may not have typically been exposed to. As will be mentioned in the sections to follow, the vimeo has the unique perspective of providing information that situates anxiety in a neuro-biological manner.

As a psycho-educational tool, the vimeo identifies with the necessary components of learning, as identified by Cozolino and Sprokay (2006) and cited in Miller (2016). Firstly, the researcher was mindful to create a trusting and non-threatening environment that would allow the participants to feel calm and maintain a moderate level of arousal. The vimeo was targeted to influence both the participants' thoughts and feelings related to anxiety, which allowed for an active process of self-reflection. Finally, the narrative of the vimeo emphasises a positive and optimistic message through its promotion of self-evocation (Miller, 2016).

In a typical environmental scenario, the Hypothalamus informs the PFC of the physiological and psychological status of the individual. The PFC and the Nucleus Accumbens work together to initiate a particular behavioural response (avoidance or approach) (Rossouw, 2017). Many individuals with anxiety often respond by avoiding the trigger of their anxiety. The goal of many interventions targeted at anxiety is to weaken these already established avoidance tendencies and to enhance the approach system (Dahlitz, 2015; Stjepanovic & Labar, 2018). Enriched and stimulating environments are believed to have the capability to bring about positive perceptive and behavioural changes through the reorganisation of neural networks (Miller, 2016; Stjepanovic & Labar, 2018). Promotion of the approach system activates the Cingulate Cortex, strengthens the PFC, and spikes a release of Dopamine (Dahlitz, 2015). Considered a reinforcing agent, Dopamine strengthens the same neural networks for future activation and thus enhances the motivational salience of behaviour (Rossouw, 2017). In this way, both the promotion of approach behaviours through educational interventions, as well as the actual implementation of approach behaviours, are essential components of the therapeutic practice.

The vimeo not only served as such an educational intervention for sharing information about the brain and anxiety, but also promoted the neuropsychological aspect of anxiety by sparking the participants' interest for more information on this. The participants shared that they would have liked more depth and details from the vimeo, particularly relating to the brain and the actual methods that could assist them in using their 'smart brain'. The participants' responses

suggest that they valued the learning experience and that this triggered a further desire to learn even more about anxiety and the brain.

### 5.2.2. Embodied mind and brain

The second theme identified in chapter 4 emphasises the value of the vimeo in providing the participants with new insight into the dispositional element of anxiety, as well as the neural mechanisms behind the development and management of anxiety.

It is not only the perceptions of psychological conditions that can differ according to culture, but also the perceived causal attributions and the best suited psychological interventions for psychological conditions (Cheng & Cheung, 2013). Within the South African context, there may be a multitude of different psychological approaches that attribute anxiety-related symptomatology to several different causes (Makanjuola et al., 2016). A study by Sorsdahl et al. (2010) identified the following alternative causes of psychological conditions within the South African context; namely, witchcraft and/or the possession of evil spirits (Amafufunyana), a calling from ancestors to become traditional healers themselves (Ukuthwasa), or even the consequence of inappropriate social behaviours such as substance abuse, poverty, thinking too much, or family problems.

The participants used in the present study represent a more collectivist African culture in contrast to the Westernised Australian context in which the vimeo was developed. It is possible that the participants may have been exposed to a multitude of explanatory models for their symptoms, none of which have focused on the neural underpinnings of anxiety. The participants recognised that they not only had limited knowledge about anxiety in general, but particularly with regards to the strong relationship between anxiety and the brain. They shared that they were not aware of the neural mechanisms responsible for their anxiety as shown in the vimeo, nor that they could have been born with or gradually developed these overactive anxiety-provoking instincts over the years.

Serving as a neuro-psycho-educational tool, the vimeo provided the participants with insight into the neuro-biological aspects of anxiety. The vimeo provides the opportunity to understand the key difference between incidental and intentional influences on the human brain and how these ultimately play a role in developing and managing anxiety.

The vimeo demonstrates a young boy's (Peter) early fearful experiences with a dog, and thus essentially emphasises the role of early life experiences on the developing brain. Youth represents a sensitive period of development whereby the brain is highly influenced by behaviour, thoughts, feelings, and perceptions (Miller, 2016). These experiences can cause significant structural and functional changes to the brain, which in turn lead to maladaptive automatic trigger responses (Davidson & McEwen, 2013; Miller, 2016; Stjepanovic & Labar, 2018). Through understanding how anxiety may develop and change throughout one's life, the participants could potentially have gained insight into the role of incidental influences on the development of anxiety (Davidson & McEwen, 2013). The vimeo also explains the way different brain regions develop throughout one's life, and thus also emphasises the malleable aspect of the brain. This suggests that the maladaptive reactions to anxiety triggers, that often become habitual practice, can in fact be changed through intentional environmental influences (Davidson & McEwen, 2013; Miller, 2016; Stjepanovic & Labar, 2018). Psycho-education, neuro-psychotherapy and the overall exposure to neuro-psycho-educational tools, could serve as intentional interventions. Through gaining insight into the role of intentional influences on anxiety, the participants could have potentially begun to see that their anxiety can in fact change. As a starting point, these interventions may foresee behavioural outcomes; however as per the principles of neuro-psychotherapy, their mechanisms can operate on a neuropsychological basis (Davidson & McEwen, 2013; Rossouw, 2017).

In addition to learning about the embodied causes of anxiety, the participants shared their new insight into the manageability of anxiety through psychological strategies (using the mind) and neural processes (using the brain). The vimeo describes the top-down strategy of managing anxiety; using the smart brain (PFC) to communicate the rationality of a situation to the impulsive brain (limbic system), so that the individual learns to effectively respond to the situation.

'Responding' to a situation varies significantly to the act of 'reacting' to a situation (James, 2016; Mosley, 2013). A reaction is a survival-oriented, defence mechanism that occurs instantaneously due to immediate emotions and beliefs, rather than conscious thought or appraisal (James, 2016). In the vimeo, Peter's impulsive brain became overactive after his incident with a dog, causing him to generalise his anxiety across different dogs in dissimilar situations. This is an example of him 'reacting' to the situation at hand without considering the actual threat of the

situation. 'Responding' to a situation, on the other hand, implies a brief interval between the experience of the event, the interpretation of the event, and the behaviour in response to the event (Mosley, 2013). When Peter saw another dog approaching and felt his anxiety emerging, his smart brain took over and allowed him to consciously think through the situation. Peter assessed the rationality of his fear, he realised the dog is friendly and thus not an imminent threat, and subsequently managed to successfully interact with the dog. This is an example of him 'responding' to the situation at hand using logic and reason.

The way individuals respond to different situations may vary significantly based on personality and their own beliefs and prejudices (Mosley, 2013). Despite this, the more stressful a situation is, the more one will react immediately and behave maladaptively. Individuals with anxiety are therefore are at a higher risk of reacting rather than responding. Peter was able to respond to a situation consciously, rather than react instantaneously, through using his smart brain. The participants thus observed the potential of neural mechanisms for managing their anxiety through applying psychological strategies. They expressed a new understanding of 'responding' to an anxiety-provoking situation through staying calm, using a different approach, thinking positively, applying rational thinking, and remaining solution-focused. This contrasts with their past reflections on the manner they had 'reacted' to anxiety triggers, through fear and avoidance. Overall, the participants gained insight into the dispositional elements of anxiety and the embodied understanding of managing anxiety.

### 5.2.3. Sense of empowerment

The third theme speaks to the potential role of the vimeo in providing the participants with a sense of empowerment. The participants shared many negative feelings and perceptions they had prior to watching the vimeo and suggested the ways in which the vimeo may have challenged these perspectives.

The first important consideration in this section is the concept of 'culpability of victims of mental illness'. As mentioned, the participants were not previously aware of the neural mechanisms responsible for the development of their anxiety. Instead, the participants held beliefs associated with blaming themselves; seeing their anxiety as being their own fault, and even feeling as if they were "going crazy" for experiencing such symptoms. The participants expressed having experienced feelings of blame and guilt through believing that they were responsible for causing

their own anxiety (Idemudia & Matamela, 2012). This finding is consistent with the literature suggesting that community perceptions often deem individuals with psychological conditions to be responsible for allowing their condition to pursue (Idemudia & Matamela, 2012; Makanjuola et al., 2016).

As a neuro-psycho-educational tool, the vimeo educated the participants on the dispositional factors of anxiety (the neural mechanisms leading to anxiety). Understanding the internal attribution for their anxiety enabled the participants to reflect on the triggers that were activated in the brain and realise that it was always not something they could have done that lead to their anxiety. This has ultimately led the participants to reconsider placing utmost blame upon. In addition, insight into the ignition switch in determining the imminent threat of a situation, despite being irrational, lead the participants to realise that it was yet again another internal factor causing them to fear somewhat non-threatening situations.

There have been contradictory findings when exploring the impact of placing responsibility for psychological conditions on biogenetic explanations (Mokkarala, O'Brien, & Siegel, 2015). Some research has found that biological attributions of conditions can lead to the perspective that such conditions are hereditary and incurable, reflecting negatively upon the family. The results to this study, however, are consistent with literature emphasising the positive outcomes of promoting biological explanations of psychological conditions (Mokkarala et al., 2015).

The participants shared that they felt reduced self-blame and guilt over their anxiety. It is thus a possibility that exposure to this neuro-psycho-educational tool allowed the participants to override their previous beliefs of innate weakness with more appropriate conceptualisations of their psychopathology (Miller, 2016). The vimeo thus displays usefulness in line with the overarching benefits of psycho-education in that it has managed to promote compassion and empathy for the self (Dahlitz, 2015; Miller, 2016). Another such advantage of providing participants with information on psychological distress from a neural perspective is that it allows for them to visualise what is happening in their brains, in ways that can assist them in regulating such actions (Miller, 2016).

Another consideration in this section is how the interplay between feelings of control and perceptions of curability can further influence one's feelings of encouragement and empowerment.

One of the most fundamental human needs is for control and orientation over one's life. This entails having an accurate appraisal of a situation through understanding the essential aspects of such a situation (Dahlitz, 2015). One way of gaining this sense of control and orientation is through maintaining consistency between one's goals and perceptions of reality. This emphasises the importance of aligning one's goal of managing their anxiety with the belief that anxiety can in fact be managed (Dahlitz, 2015). The participants expressed feelings of helplessness and being out of control. As mentioned above, the participants also shared their initial beliefs that anxiety was a lifelong condition and that nothing could ever be done to alleviate the symptoms of anxiety. It is a possibility that exposure to such perspectives of incurability could have ultimately led the participants to believe that they could not manage their own anxiety (Ikwuka et al., 2016; Makanjuola et al., 2016).

According to Bennett Cattaneo and Goodman (2015), a relationship exists between one's self-efficacy and their knowledge and skills related to the task at hand. It thus stands to reason that a lower mental health literacy would translate to lower perceived ability to deal with psychological conditions (Bennett Cattaneo & Goodman, 2015). Literature also suggests a significant link between mental health literacy and a sense of control (J. S. Reijnders, Geusgens, Pondsa, & van Boxtela, 2017). It can thus be postulated that the participants, who lacked significant understanding and knowledge about anxiety, saw themselves in a situation with limited orientation of their life situations. This inconsistency between one's goals, expectations and perceptions represents an 'uncontrollable incongruence' (Dahlitz, 2015; Rossouw, 2017). It is this discrepancy that intensifies one's neural cascades towards anxiety.

Psycho-education, as an intervention tool, provides individuals with the information they would need to acquire accurate appraisals and gain more orientation of their situations. Through watching the vimeo and learning about the malleable component of the brain on anxiety, the participants expressed insight into the fact that anxiety can be managed. In this way, the participants could gain the much-needed clarity that could ultimately influence and address their need for control (Cheng & Cheung, 2013).

The participants shared the many regulatory techniques that they will consider after watching the vimeo. Remaining calm in an anxiety-provoking situation, so that rational thought is made possible, is one such technique. Self-calming techniques, such as focused breathing, is

especially useful for individuals with anxiety as it reduces physical and emotional arousal through slowing down the rate of breathing and allowing for a better sense of serenity and centering (Bennett Cattaneo & Goodman, 2015). The participants' insight into the mechanisms of change that are possible would allow for them to take an active role in their lives and well-being, rather than just passive observers and perceivers of the symptoms (Miller, 2016; J. S. Reijnders et al., 2017). When one chooses how to respond to a situation, they have made a conscious decision, having used their most intelligent and highest self, as to how to behave (James, 2016). The vimeo thus provides the participants with the opportunity to move from an 'uncontrollable incongruence' to a 'controllable incongruence'; recognising the challenges with their anxiety but feeling enabled to better handle these challenges.

This alternative knowledge and skills perspective, as it relates to managing anxiety, strengthens the top-down regulation that is possible when attempting to regulate one's anxiety, allowing the participants to maintain a moderate state of arousal (Dahlitz, 2015; Rossouw, 2017). In essence, the participants could have the potential to gain feelings of control which can promote a sense of encouragement, hope and overall empowerment (James, 2016; Miller, 2016).

An individual generally begins to feel empowered through the iterative and conscious process of setting goals and consequently taking action towards achieving that goal (Bennett Cattaneo & Goodman, 2015). This process is often made possible through the acquisition of relative knowledge and skills that encourage an individual to make informed decisions and hone in on their level of self-efficacy (Bennett Cattaneo & Goodman, 2015; Grealish et al., 2017). Empowerment has shown to be a mediator in the relationship between positive psychological factors and mental well-being. The positive influence that self-efficacy, resilience, adaptive coping strategies, and control has on one's mental health and recovery is mediated by empowerment (Grealish et al., 2017). Empowerment is, therefore, identified as a critical component of recovery from psychological conditions; assisting individuals with overcoming life challenges and increasing their overall well-being (Phillips, McIntyre, Greth, Kichline, & Esther, 2015).

### 5.2.4. Broad utility of the vimeo

The fourth and final theme speaks to the vimeo having broad and distal benefits. According to Miller (2016), the successful acquisition of neurobiological information can often be determined by the experimental nature of the learning scenario. The participants shared how they could relate

to the vimeo as it made them reflect on their own experiences with anxiety and evoked strong emotive responses. One participant described how seeing the dog approach Peter elicited anxiety-related feelings as she knew that the dog was a trigger for the boy. The participants were therefore able to reflect on their personal experiences and apply the information learnt to their personal lives.

The participants recognised the multiple ways in which the contents of the vimeo could potentially be positively useful for both themselves and others. The participants realised that anxiety was a condition that could affect a wide range of individuals; regardless of race, gender, age, status or location. Given this realisation, the contents of the vimeo were perceived to be a useful tool by providing alternative perspectives, novel insights and additional knowledge about anxiety as a psychological condition.

One participant acknowledged that the trigger of the dog in the vimeo could represent any other trigger for a person with a different form of anxiety. Despite focusing on a phobia of a dog, the vimeo was also perceived to be useful for a wide range of anxiety conditions and triggers. These findings speak to the potential distal benefits of the vimeo. These include both direct benefits that others could experience by watching the vimeo and gaining the same insight the participants had, as well as indirect benefits that could arise when the learnings and insight from the vimeo are shared with others.

As a broad and relatable psycho-educational tool, the vimeo could be considered a useful tool for other community members. Many community members may come from under-resourced areas in South Africa, where treatment interventions are often expensive and not easily accessible. The vimeo used in this study is considered a passive psycho-educational intervention as it uniquely presents educational information without requiring active engagement and/or activity by the viewer (Srivastava & Panday, 2017). The vimeo can be delivered in broad settings (both primary and secondary care settings), can be administered individually or in groups, does not need a vast range of resources, and is not always necessarily associated with other more active treatment interventions (Delgadillo et al., 2016; Srivastava & Panday, 2017). This ultimately supports the convenient and cost-effective nature of psycho-education and emphasises the usefulness of such a tool in the semi-urban context of South Africa. Another benefit of a neuro-psycho-educational tool to be used for the community is its use of lay terms to describe complex neurobiological functioning (Miller, 2016).

Finally, the vimeo was also deemed useful for future reference. The participants shared that they would think back to the content of the vimeo to assist them in managing future anxiety-provoking situations. In this way, the vimeo did not only provide immediate benefits for the participants but could have long-term positive outcomes as well.

## 5.3. Summary: Neuro-psycho-education in the South African context

The main aim of the study was to explore the utility of the vimeo, with reference to how it has impacted the participants' understanding and perceptions of anxiety. The four themes above describe the utility of the vimeo in providing the participants with important information about anxiety and the brain, in educating the participants about the embodied mind and brain understanding of anxiety, in promoting a sense of empowerment within the participants, and for serving as a broad tool with distal benefits as well. The results of the study following qualitative analyses showed that the participants' understanding and perceptions of anxiety were positively influenced through watching the vimeo. This section will provide an overview of the utility of the vimeo in relation to the participants' unique contexts.

As mentioned previously, both conceptual and intervention barriers to seeking intervention for anxiety are ripe in the South African context. Ikwuka et al. (2016) found that ideological barriers, such as mental health literacy and cultural constraints, were more significantly perceived than intervention barriers in sub-Saharan African regions. This finding is ironically present in many resource-poor regions where the intervention barriers would generally be higher (Ikwuka et al., 2016). This highlights the importance of targeting the more conceptual ideals of community members when attempting to promote mental health awareness in the South African context. The value of this psycho-educational tool lies in its ability to positively influence the participants' understanding and perceptions of anxiety. The participants would ultimately be more willing to engage in help-seeking behaviour through the improvement in their conceptualisation of their condition.

Various factors need to be considered in order to understand the participants' conceptualisations of anxiety and how this has been influenced by the vimeo. These factors can include one's cultural standpoint, socio-economic status, psychological readiness for engagement, level of psychological impairment, and overall context (Delgadillo et al., 2016; Miller, 2016). Contextual factors describe the social norms and rules that are often associated with collectivist

and individualistic cultural structures (Hofmann & Hinton, 2014; Laher, 2014). Ethno-psychological/ physiological factors, on the other hand, describe the cultural conceptualisations of how the mind and body function and interact with one another (Hofmann & Hinton, 2014). The participants come from a certain contextual and ethno-psychological/ physiological standing which ultimately shape their conceptualisations and expression of anxiety. The participants were not previously exposed to the embodied role of the mind and brain in anxiety and gained this insight through exposure to the vimeo.

It is important to appreciate the role the vimeo has played in allowing the participants to challenge their typical conceptualisations and gain insight into divergent perspectives. An important consideration for this psycho-educational tool (and for future tools of this nature) is to enlighten community members on new perspectives, whilst remaining cognisant and respectful of alternative culturally-entrenched explanatory models for anxiety (Atilola, 2015).

According to Zipple and Spanial (1997), as cited in Srivatsva and Panday (2017), the model of psycho-education employed often determines the focus of such an intervention, as well as the criteria used to assess its effectiveness. Serving as both an information model and a skills-training model, the use of this vimeo as a psycho-educational tool, managed to achieve its respective goals. As an information model, the vimeo provided the individuals with important information about the condition and its management, enhancing further awareness. As a skills-training model, this vimeo educated the participants on the specific top-down coping strategies that they can apply to their anxiety. Ndoja (2012) describes the core changes that can be brought on through psycho-education; the construction of confidence and feeling understood, the promotion of efforts for improvement, and feelings of ease. The findings of this study imply benefits of the vimeo that are consistent with the literature (Alfonsson et al., 2017; Nilsen et al., 2016; Prost et al., 2013; Shannonhouse et al., 2014; Taylor-Rodgers & Batterhamb, 2014; Vallentine et al., 2010). The vimeo encouraged more willingness for the participants to set adaptive goals for themselves and engage in non-medicated alternatives of symptom management and recovery. This has ultimately made them feel more confident and encouragement.

Not only did the vimeo educate and bring awareness of anxiety, but it also promoted the importance of looking after one's mental status. As society engages in physical activities to promote their physical health, there has remained a gap in promoting mental health through

psychological activities (Davidson & McEwen, 2013). Through engaging with the vimeo, the participants learnt the benefits of taking responsibility for their minds and brains through practicing psychological strategies that could induce plastic changes in the brain and foresee both social and emotional behavioural changes.

### 5.4.Limitations

Firstly, sample bias is a possibility that needs to be considered given the small number of participants who were conveniently available through the clinic's affiliation with the university. A larger and more representative group of participants in such a qualitative research study could give more comprehensive data on the effectiveness of psycho-educational tools on anxiety for young adults living with anxiety in the semi urban regions of South Africa. In line with this, the vimeo utilised in this study was developed in Australia and the content and narrative may have impacted the participants' experience of and views on the vimeo, specifically because the participants come from a diverse cultural setting.

Lastly, exploration into how the participants incorporate their learning into the recovery process were not conducted. Considering this in relation to both short-term and long-term outcomes, as well as both measurable objective and more subjective qualitative outcomes could provide a more in-depth account of the broad utility of the vimeo (Miller, 2016; Srivastava & Panday, 2017).

### 5.5.Recommendations

As a neuro-psycho-educational tool, the vimeo described neurobiological aspects of anxiety, specifically relating to the triune brain and top-down neuro-psychotherapy. Future neuro-psycho-educational tools could expand on this information by adjusting the depth and language of the information offered. The vimeo and future neuro-psycho-educational tools could also incorporate contextual and cultural nuances into the content and narrative of the information provided. Further recommendations for future research could also include exploring participants' cultural contexts and the role such culture plays in their experiences of anxiety and how they interpret the vimeo.

Lastly, it could also be useful to involve the individual's immediate family members in such an intervention. With the overall aim of improving awareness and management of

psychological symptomatology, involving the family in the process could encourage them to assist and support the individual (Srivastava & Panday, 2017).

**5.6.Summary and Conclusion**

The vimeo, as a neuro-psycho-educational tool, has constructive utility for these participants living with anxiety and consequently attending a psychological clinic for intervention. The value of the study was that it highlighted the use of an alternative cost-effective tool, as well as the potential value of future psycho-educational tools for individuals with anxiety in the semi-urban regions of South Africa. Within the framework of qualitative research exploration, this study provided a platform for further research on the use of novel neuro-psycho-educational tools in resource-limited settings as potential adjunct to therapy with the aim of optimising the efficacy of positive client-centred outcomes.

**References**

Adams, B. G., Van de Vijver, F. J., & De Bruin, G. P. (2012). Identity in South Africa: Examining self-descriptions across ethnic groups. *International Journal of Intercultural Relations*, *36*, 377– 388. doi:10.1016/j.ijintrel.2011.11.008.

Alfonsson, S., Johansson, K., Uddling, J., & Hursti, T. (2017). Differences in motivation and adherence to a prescribed assignment after face-to-face and online psychoeducation: an experimental study. *BMC Psychology*, *5*(3), 1-13. doi:10.1186/s40359-017-0172–0175.

Alhojailan, M. I. (2012). Thematic Analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, *1*(1), 39–47.

Al-yahya, N. M. (2014). Effects of Psycho Education Intervention in Improving Insight and Medication Compliance of Schizophrenic Clients, Riyadh, Saudi Arabia. *World Journal of Medical Sciences*, *11*(3), 289-300. doi:10.5829/idosi.wjms.2014.11.3.84256.

American Psychiatric Association [APA]. (2013). *Diagnostic and Statistical Manual of mental disorders (DSM-V)* (5th ed.). Arlington, VA, US.

Atilola, O. (2015). Level of community mental health literacy in sub-Saharan Africa: Current studies are limited in number, scope, spread, and cognizance of cultural nuances. *Nordic Journal of Psychiatry*, *69*, 93-101. doi:10.3109/08039488.2014.947319.

Australian Institute of Professional Counsellors [AIPC]. (2014). Psychoeducation: Definition, Goals and Methods (Adapted from Psychoeducation for Clients, Mental Health Academy). *Australian Institute of Professional Counsellors (AIPC) Article Library*.

Bains, M. K., Scott, S., Kellet, S., & Saxon, D. (2014). Group psychoeducative cognitive-behaviour therapy for mixed anxiety and depression with older adults. *Aging & Mental Health*, *18*(8), 1057–1065.

Baxter, A. J., Scott, K. M., Vos, T., & Whiteford, H. A. (2013). Global prevalence of anxiety

    disorders: A systematic review and meta-regression. *Psychological Medicine*, *43*, 897–

    910. doi:10.1017/S003329171200147X.

Bennett Cattaneo, L., & Goodman, L. (2015). What Is Empowerment Anyway? A Model for

    Domestic Violence Practice, Research, and Evaluation. *Psychology of Violence*, *5*(1), 84-

    94. doi:10.1037/a0035137.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in*

    *Psychology*, *3*(2), 77–101.

Braun, V., & Clarke, V. (2012). Thematic analysis. In Cooper, H., Camic, P., Long, D., Panter,

    A., Rindskopf, D. & Sher, K. *APA handbook of research methods in psychology, Vol. 2:*

    *Research designs: Quantitative, qualitative, neuropsychological, and biological* (Vol. 2,

    pp. 57–71). Washington, DC: American Psychological Association.

Cheng, C., & Cheung, S. (2013). Cultural Meaning of Perceived Control: A Meta-Analysis of

    Locus of Control and Psychological Symptoms Across 18 Cultural Regions.

    *Psychological Bulletin*, *139*(1), 152–188.

Chiang, V. C. L., Chien, W. T., Wong, H. T., Lee, R. L. P., Ha, J., Leung, S. S. K., & Wong, D.

    F. K. (2016). A Brief Cognitive-Behavioral Psycho-Education (B-CBE) Program for

    Managing Stress and Anxiety of Main Family Caregivers of Patients in the Intensive

    Care Unit. *International Journal of Environmental Research and Public Health*, *13*(962),

    1-13. doi:10.3390/ijerph13100962.

Chien, W. T., Leung, S. F., & Chu, C. S. K. (2012). A nurse-led, needs-based psycho-education

    intervention for Chinese patients with first-onset mental illness. *Contemporary Nurse*,

    *40*(2), 194–209.

Chiesa, A., Castagner, V., Andrisano, C., Serretti, A., Mandelli, L., Porcelli, S., & Giommi, F. (2015). Mindfulness-based cognitive therapy vs. psycho-education for patients with major depression who did not achieve remission following antidepressant treatment. *Psychiatry Research*, *226*, 474–483. doi:10.1016/j.psychres.2015.02.003.

Clarke, V., & Braun, V. (2013a). *Successful Qualitative Research: a practical guide for beginners*. London, England: SAGE Publications.

Clarke, V., & Braun, V. (2013b). Teaching thematic analysis: Over-coming challenges and developing strategies for effective learning. *The Psychologist*, *26*(2), 120–123.

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, California: SAGE Publications.

Creswell, J. W. (2015). *Educational research: planning, conducting, and evaluating quantitative and qualitative research* (5th ed.). Frenchs Forest, New South Wales: Pearson Australia.

Cristancho-Lacroix, V., Wrobel, J., Cantegreil-Kallen, I., Dub, T., Rouquette, A., & Rigaud, A. S. (2015). A Web-Based Psychoeducational Program for Informal Caregivers of Patients with Alzheimer's Disease: A Pilot Randomized Controlled Trial. *Journal of Medical Internet Research*, *17*(5), e117. doi:10.2196/jmir.3717.

Dahlitz, M. J. (2015). Neuropsychotherapy: Defining the emerging paradigm of neurobiologically informed psychotherapy. *International Journal of Neuropsychotherapy*, *3*(1), 47-69. doi:10.12744/ ijnpt.2015.0047-0069.

Davidson, R. J., & McEwen, B. S. (2013). Social influences on neuroplasticity: Stress and interventions to promote well-being. *Nature Neuroscience*, *15*(5), 689–695. doi:10.1038/nn.3093.

Delgadillo, J., Kellett, S., Ali, S., McMillan, D., Barkham, M., Saxon, D., … Lucock, M. (2016). A multi-service practice research network study of large group psychoeducational cognitive behavioural therapy. *Behaviour Research and Therapy*. doi:10.1016/j.brat.2016.09.010.

Doody, O., & Noonan, M. (2013). Preparing and conducting interviews to collect data. *Nurse Researcher*, *20*(5), 28–32.

Eker, F., & Harkin, S. (2012). Effectiveness of six-week psychoeducation program on adherence of patients with bipolar affective disorder. *Journal of Affective Disorders*, *138*, 409–416.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4. doi:10.11648/j.ajtas.20160501.11.

Furnham, A., & Hamid, A. (2014). Mental health literacy in non-western countries: A review of the recent literature. *Mental Health Review Journal*, *19*(2), 84-98. doi:10.1108/MHRJ-01-2013–0004.

Furnham, A., & Lousley, C. (2013). Mental health literacy and the anxiety disorders. *Health*, *5*(3A), 521-531. doi:10.4236/health.2013.53A071.

Ganasen, K. A., Parker, A., Hugo, C. J., Stein, D., Emsley, R., & Seedat, A. (2008). Mental health literacy: focus on developing countries. *African Journal of Psychiatry*, *11*(1), 23–28.

Grealish, A., Tai, S., Hunter, A., Emsley, R., Murrells, T., & Morrison, A. P. (2017). Does empowerment mediate the effects of psychological factors on mental health, well-being, and recovery in young people? *Psychology and Psychotherapy: Theory, Research and Practice*, *90*, 314–335.

Hawke, L. D., Velyvis, V., & Parikh, S. V. (2013). Bipolar disorder with comorbid anxiety

disorders: impact of comorbidity on treatment outcome in cognitive-behavioral therapy

and psychoeducation. *International Journal of Bipolar Disorders*, *1*(15), 1-6.

doi:10.1186/2194-7511-1–15.

Herman, A., Stein, D. J., Seedat, S., Heeringa, S. G., Moomal, H., & Williams, D. R. (2009). The

South African Stress and Health (SASH) study: 12-month and lifetime prevalence of

common mental disorders. *South African Medical Journal*, *99*, 339–344.

Hofmann, S. G., & Hinton, D. E. (2014). Cross-Cultural Aspects of Anxiety Disorders. *Current

Psychiatry Reports*, *16*(6), 1-9. doi:10.1007/s11920-014-0450–0453.

Idemudia, E. S., & Matamela, N. A. (2012). The role of stigmas in mental health: A comparative

study. *Curationis*, *35*(1), 2-8. doi:10.4102/curationis. v35i1.30.

Ikwuka, U., Galbraith, N., Manktelow, K., Chen-Wilson, J., Oyebode, F., Muomah, R. C., &

Igboaka, A. (2016). Ideological vs. Instrumental Barriers to Accessing Formal Mental

Health care in the Developing World: Focus on South- eastern Nigeria. *Journal of Health

Care for the Poor and Underserved*, *27*, 157–175.

James, M. (2016). React vs. Respond. What's the difference? Retrieved from Psychology Today

website: https://www.psychologytoday.com/us/blog/focus-forgiveness/201609/react-vs-

respond

Kakuma, R., Kleintjes, S., Lund, C., Drew, N., Green, A., & Flisher, A. J. (2010). Mental health

stigma: What is being done to raise awareness and reduce stigma in South Africa?

*African Journal of Psychiatry*, *13*, 116–124.

Karlsson, H. (2011). How psychotherapy changes the brain. *Psychiatric Times*, *28*(8), 1–5.

Kazdin, A. E. (2015). Evidence-based psychotherapies II: changes in models of treatment and treatment delivery. *South African Journal of Psychology*, *45*(1), 3–21.

Kindt, M. (2014). A behavioural neuroscience perspective on the aetiology and treatment of anxiety disorders. *Behaviour Research and Therapy*, *62*, 24-36. doi:10.1016/j.brat.2014.08.012.

Laher, S. (2014). An overview of illness conceptualizations in African, Hindu, and Islamic traditions: towards cultural competence. *South African Journal of Psychology*, *44*(2), 191– 204. doi:10.1177/0081246314528149.

MacLean, P. D. (1990). *The Triune Brain in Evolution: Role in Paleocerebral Functions.* New York: Plenum Press.

Maguire, M., & Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J)*, *8*(3), 33511–33514.

Makanjuola, V., Esan, Y., Oladeji, B., Kola, L., Appiah-Poku, J., Harris, B., … Gureje, O. (2016). Explanatory model of psychosis: impact on perception of self-stigma by patients in three sub-saharan African cities. *Social Psychiatry and Psychiatric Epidemiology*, *51*(12), 1645–1654.

McConnochie, K., Ranzijn, R., Hodgson, L., Nolan, W., & Samson, R. (2012). Working in Indigenous Contexts: Self-Reported Experiences of Non-Indigenous Australian Psychologists. *Australian Psychologist*, *47*(4), 204-212. doi:10.1111/j.1742-9544.2011.00042.x.

McGowan, T. C., & Kagee, A. (2013). Exposure to traumatic events and symptoms of post-traumatic stress among South African university students. *South African Journal of Psychology*, *43*, 327-339. doi:10.1177/0081246313493375.

Meinck, F., Cluver, L. D., Orkin, F. M., Kuo, C., Dhar Sharma, A., Hensels, I. S., & Sherr, L. (2017). Pathways from Family Disadvantage via Abusive Parenting and Caregiver Mental Health to Adolescent Health Risks in South Africa. *Journal of Adolescent Health*, *60*(1), 57–64.

Melo-Carrillo, A., Van Oudenhove, L., & Lopez-Avila, A. (2012). Depressive symptoms among Mexican medical students: High prevalence and the effect of a group psychoeducation intervention. *Journal of Affective Disorders*, *136*, 1098–1103. doi:10.1016/j.jad.2011.10.040.

Miller, R. (2016). Neuroeducation: Integrating Brain-Based Psychoeducation into Clinical Practice. *Journal of Mental Health Counseling*, *38*(2), 103-115. doi:10.17744/mehc.38.2.02.

Mokkarala, S., O'Brien, E. K., & Siegel, J. T. (2015). The relationship between shame and perceived biological origins of mental illness among South Asian and white American young adults. *Psychology, Health & Medicine*, *21*(4), 448-459. doi:10.1080/13548506.2015.1090615.

Morokuma, I., Shimodera, S., Fujita, H., Hasizume, H., Kamimura, N., Kawamura, A., … Inoue, S. (2013). Psychoeducation for major depressive disorders: A randomised controlled trial. *Psychiatry Research*, *210*, 134–139. doi:10.1016/j.psychres.2013.05.018.

Mosley, S. (2013). Reaction vs. Response. Retrieved from Insightful Innovations website: http://www.insightfulinnovations.com/zykrblog/reaction-vs-response

Mosotho, L., Louw, D. A., & Calk, F. J. W. (2011). The manifestation of anxiety among Sesotho

    speakers. *South African Journal of Psychology*, *41*(4), 437–450.

Muriungi, S. K., & Ndetei, D. M. (2013). Effectiveness of psycho-education on depression,

    hopelessness, suicidality, anxiety and substance use among basic diploma students at

    Kenya Medical Training College. *South African Journal of Psychology*, *19*, 41–50.

Ndoja, S. (2012). A Further Advance in Clinical Perspective: An Introduction to Neuro-Psycho-

    Education Model. *Journal of Educational and Social Research*, *2*(6).

Nicholas, J., Boydell, K., & Christensen, H. (2017). Self-management in young adults with

    bipolar disorder: Strategies and challenges. *Journal of Affective Disorders*, *209*, 201-208.

    doi:10.1016/j.jad.2016.11.040.

Nilsen, L., Frich, J. C., Friis, S., Norheim, I., & Røssberg, J. I. (2016). Participants' perceived

    benefits of family intervention following a first episode of psychosis: a qualitative study.

    *Early Intervention in Psychiatry*, *10*, 52–159.

Norr, A. M., Gibby, B. A., & Schmidt, N. B. (2017). Is computerized psychoeducation sufficient

    to reduce anxiety sensitivity in an at-risk sample? A randomized trial. *Journal of Affective*

    *Disorders*, *212*, 48-55. doi:10.1016/j.jad.2017.01.032.

Öksüz, E., Karaca, S., Özaltın, G., & Ateş, M. A. (2017). The Effects of Psychoeducation on the

    Expressed Emotion and Family Functioning of the Family Members in First-Episode

    Schizophrenia. *Community Mental Health Journal*, doi:10.1007/s10597-017-0086-y.

Parikh, S. V., Zaretsky, A., Beaulieu, S., Yatham, L., Young, T., Patelis-Siotis, I., … Streiner, D.

    (2012). A Randomized Controlled Trial of Psychoeducation or Cognitive-Behavioral

    Therapy in Bipolar Disorder: A Canadian Network for Mood and Anxiety Treatments

(CANMAT) Study. *The Journal of Clinical Psychiatry*, *73*(6), 803–810.

doi:10.4088/JCP.11m07343.

Patel, V., Weiss, H. A., Chowdhary, N., Naik, S., Pednekar, S., Chatterjee, S., & Kirkwood, B.
R. (2011). Lay health worker led intervention for depressive and anxiety disorders in
India: Impact on clinical and disability outcomes over 12 months. *British Journal of
Psychiatry*, *199*, 459–466.

Paulus, D. J., Wadsworth, L. P., & Hayes-Skelton, S. A. (2015). Mental Health Literacy for
Anxiety Disorders: How perceptions of symptom severity might relate to recognition of
psychological distress. *Journal of Public Mental Health*, *14*(2), 94-106.
doi:10.1108/JPMH-09-2013-0064.

Petersen, I., Marais, D., Abdulmalik, J., Ahuja, S., Alem, A., Chisholm, D., … Thornicroft, G.
(2017). Strengthening mental health system governance in six low- and middle-income
countries in Africa and South Asia: challenges, needs and potential strategies. *Health
Policy and Planning*, *32*, 699-709. doi:10.1093/heapol/czx014.

Petrakis, M., Oxley, J., & Bloom, H. (2012). Carer psychoeducation in first-episode psychosis:
Evaluation outcomes from a structured group programme. *International Journal of Social
Psychiatry*, *59*(4), 391–397.

Prost, E., Musisi, S., Okello, E. S., & Hopman, W. M. (2013). The role of psycho-education in
improving outcome at a general hospital psychiatry clinic in Uganda. *African Journal of
Psychiatry*, *16*, 264–270.

Proudfoot, J., Parker, G., Manicavasagar, V., Hadzi-Pavlovic, D., Whitton, A., Nicholas, J., …
Burckhardt, R. (2012). Effects of adjunctive peer support on perceptions of illness control

and understanding in an online psychoeducation program for bipolar disorder: A

    randomised controlled trial. *Journal of Affective Disorders*, *142*, 98–105.

Rabionet, S. E. (2011). How I Learned to Design and Conduct Semi-Structured Interviews: An

    Ongoing and Continuous Journey. *The Qualitative Report*, *16*(2), 563–566.

Reijnders, J. S., Geusgens, C. A., Pondsa, R. W., & van Boxtela, M. P. (2017). "Keep your brain

    fit!" Effectiveness of a psychoeducational intervention on cognitive functioning in

    healthy adults: A randomised controlled trial. *Neuropsychological Rehabilitation*, *27*(4),

    455–471. doi:10.1080/09602011.2015.1090458.

Richards, S. D. (2013). Effect of a psychoeducational presentation as a worldview defense

    mediation technique. *Dissertation Abstracts International: Section B: The Sciences and*

    *Engineering*, *73*, doi:10.1177/0081246314538733.

Rossouw, P. (2010). *Neurobiology and the Treatment of Mood and Anxiety disorders: How*

    *Talking Therapies Change the Brain.* Conference Paper presented at the 11th

    International Mental Health Conference, Gold Coast, Australia.

Rossouw, P. (2011). The Triune Brain - Implications for Neuropsychotherapy. In *Mediros*

    *Clinical Solutions* (5th ed.). Neuropsychotherapy News.

Rossouw, P. (2013a). *The end of the medical model? Recent findings in neuroscience regarding*

    *antidepressant medication – Implications for Neuropsychotherapy*. Retrieved from

    http://www.neuropsychotherapist.com/the-end-of-the-medical-model/

Rossouw, P. (2013b). The neuroscience of talking therapies: Implications for therapeutic

    practice. *Australian Journal for Counselling Psychology*, *13*(1), 40–50.

Rossouw, P. (2017). The social brain and education. *Educating Young Children – Learning and*

    *Teaching in the Early Childhood Years*, *23*(2), 31–34.

Ruane, I. (2010). Obstacles to the utilisation of psychological resources in a South African township community. *South African Journal of Psychology*, *40*(2), 214–225.

Ruggunan, S. (n.d.). *Introduction to Qualitative Analysis and writing up your analysis: Thematic Analysis*. Postgraduate Course: Human Resources Management presented at the University of Kwa-Zulu Natal. University of Kwa-Zulu Natal.

Samouilhan, T., & Seabi, J. (2010). University students' beliefs about the causes and treatments of mental illness. *South African Journal of Psychology*, *40*(1), 74–89.

Shah, L. B. I., Klainin-Yobas, P., Torres, S., & Kannusamy, P. (2014). Efficacy of Psychoeducation and Relaxation Interventions on Stress-Related Variables in People with Mental Disorders: A Literature Review. *Archives of Psychiatric Nursing*, *28*, 94–101.

Shannonhouse, L., Myers, J., Barden, S., Clarke, P., Weimann, R., Forti, A., … Porter, M. (2014). Finding Your New Normal: Outcomes of a Wellness-Oriented Psychoeducational Support Group for Cancer Survivors. *The Journal for Specialists in Group Work*, *39*(1), 3-28. doi:10.1080/01933922.2013.863257.

Sibeko, G., Temmingh, H., Mall, S., Williams-Ashman, P., Thornicroft, G., Susser, E. S., … Milligan, P. D. (2017). Improving adherence in mental health service users with severe mental illness in South Africa: a pilot randomized controlled trial of a treatment partner and text message intervention vs. treatment as usual. *BMC Research Notes*, *10*(584), 1-8. doi:10.1186/s13104-017-2915-z.

Sorsdahl, K. R., Flisher, A., Wilson, Z., & Stein, D. J. (2010). Explanatory models of mental disorders and treatment practices among traditional healers in Mpumulanga, South Africa. *African Journal of Psychiatry*, *13*, 284–290.

Sorsdahl, K. R., & Stein, D. J. (2010). Knowledge of and Stigma Associated with Mental

Disorders in a South African Community Sample. *The Journal of Nervous and Mental

Disease*, *198*(10), 742–747.

Srivastava, P., & Panday, R. (2017). Psychoeducation an Effective Tool as Treatment Modality

in Mental Health. *The International Journal of Indian Psychology*, *4*(1), 123–130.

Stjepanovic, D., & Labar, K. S. (2018). Chapter 2: The Cognitive Neuroscience of Fear

Learning. In Wixted, J. T. (Ed.), *Stevens' Handbook of Experimental Psychology and

Cognitive Neuroscience* (4th ed., Vol. 1). New York, NY: John Wiley & Sons.

Tacca, M. C. (2011). Commonalities between perception and cognition. *Frontiers in Psychology*,

*2*, doi:10.3389/fpsyg.2011.00358.

Taylor-Rodgers, E., & Batterhamb, P. J. (2014). Evaluation of an online psychoeducation

intervention to promote mental health help seeking attitudes and intentions among young

adults: Randomised controlled trial. *Journal of Affective Disorders*, *168*, 65–71.

The South African Depression and Anxiety Group [SADAG]. (2018). *Depression and Anxiety

Information Brochure*. Retrieved from

http://www.sadag.org/images/brochures/Anxiety%20Brochure.pdf

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis:

Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*,

*15*, 398–405.

Vallentine, V., Tapp, J., Dudley, A., Wilson, C., & Moore, E. (2010). Psycho-educational group

work for detained offender patients: understanding mental illness. *The Journal of

Forensic Psychiatry & Psychology*, *21*(3), 393-406. doi:10.1080/14789940903402191.

*Virtual Medical Centre*. (2014). Retrieved from

http://www.myvmc.com/treatments/psychoeducation/#C1

Voelkerer, V., & Rossouw, P. (2014). An exploration of neuropsychotherapy and solution-focused therapy in a clinical case study. *Neuropsychotherapy in Australia*, (27), 4–10.

Walker, H., Tulloch, L., Ramm, M., Drysdale, E., Steel, A., Martin, C., … Connaughton, J. (2013). A randomised controlled trial to explore insight into psychosis; effects of a psycho-education programme on insight in a forensic population. *The Journal of Forensic Psychiatry & Psychology, 24*(6), 756-771. doi:10.1080/14789949.2013.853821.

Willig, C. (2012). *Qualitative Interpretation and Analysis in Psychology*. United Kingdom: McGraw-Hill Education.

World Health Organisation [WHO]. (2007). *World Health Organisation - Assessment Instrument for Mental Health Systems (WHO-AIMS)*. Cape Town, South Africa: World Health Organisation and Department of Psychiatry and Mental Health.

World Health Organization [WHO]. (2017). *Depression and Other Common Mental Disorders: Global Health Estimates*. Geneva, Switzerland: WHO Document Production Services.

Xia, J., Merinder, L. B., & Belgamwar, M. (2011). Psychoeducation for schizophrenia. *Cochrane Database of Systematic Reviews*.

Zhao, S., Sampson, S., Xia, J., & Jayaram, M. B. (2015). *Psychoeducation (brief) for people with serious mental illness* (Cochrane Database of Systematic Reviews No. 4). John Wiley & Sons, Ltd.

# Appendices

## Appendix A: Permission Letter
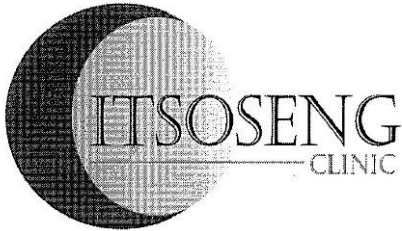
**University of Pretoria**
**Department Of Psychology**
c/o Solomon Mahlangu (Hans Strijdom) & Hinterland Street
Mamelodi East
Administration Building
Ground Floor

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Tel:    012 842 3515
Fax:    086 551 6828
E-mail:  itsoseng.clinic@up.ac.za

**Clinic Hours**
**Mon – Thu:    09h00 – 16h00**

### CONFIDENTIAL

To whom it may concern,

The Itsoseng Clinic and the clinic director, Dr Linda Blokland, is aware of the research to be conducted by Gabriella Nicolaou. We furthermore agree to refer clients to, and allow clients, participate in Gabriella's research on the condition that we receive the following documentation:

- Proposal as submitted.
- Ethical clearance letter from faculty committee.
- Copy of blank consent forms to be used.

There is also one of our secure offices available to be used in the Administration building - room D103.

Thank you and kind regards,

Rico Visser
Clinic Manager
073 686 0559

13/07/2016
Date

Itsoseng Clinic
University of Pretoria
Mamelodi Campus
Cnr. Hinterland & Solomon Mahlangu Drive.
Mamelodi East, Pretoria
Tel: 012 842 3515

# Appendix B: Participant Information Sheet and Informed Consent Form

**UNIVERSITY OF PRETORIA**
**DEPARTMENT OF PSYCHOLOGY**
**March 2017**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Dear participant,

My name is Gabriella Nicolaou, and I am conducting research for the purpose of obtaining a Master's Degree in Research Psychology at the University of Pretoria. As part of my Master's degree I am required to complete a research project. My research aim is to explore the utility of a vimeo, as a neuro-psycho-educational tool, for individuals with anxiety. The findings from this study can promote the use of psychoeducation as an effective, accessible, affordable, and convenient aid to the conventional interventions for anxiety. I hereby invite you to participate in my study.

There are two parts to this informed consent form:

1. **Information sheet:** This is an invitation to participate in the research. It will provide you with all the necessary information you will need about the study. You may keep this;
2. **Consent form:** If you choose to participate, please sign this and return it to the researcher.

## Part I: Information Sheet

### Purpose of the study

The research and researcher is affiliated with the University of Pretoria. The research is conducted for the purpose of attaining a Master's in Research Psychology. The research aims to explore utility of a vimeo, as a neuro-psychoeducational tool, for individuals with anxiety. The study will explore participants' overall opinion of the vimeo, as well as the influence the vimeo may have had on their perceptions and understanding of anxiety. Findings from this research can provide important and valuable information about psychoeducation as an effective, accessible, affordable and convenient addition to conventional intervention options used for anxiety in the South African context.

### Participation

The following will be required from you should you choose to participate:

- You will be asked to provide some basic demographic information such as your gender, age, education level, employment status, and the language you speak at home and during your schooling, if applicable. You will also be asked to provide some information on the nature of intervention you are receiving at the clinic;
- You will be shown a three-minute vimeo;
- You will be asked to participate in a one-on-one interview with a researcher. This would take approximately 1 hour.

In total, the study will take no longer than 2 hours to complete. For your convenience, the study will be conducted at the Itsoseng Clinic at a time and day of your convenience.

**Potential risks or discomfort**

The content that the research will explore is not anticipated to be of a particularly sensitive nature. Consequently, the researchers do not foresee any potential risks associated with participating in the study. All information collected will be used for research purposes only and may be stored to use for future research endeavours. The privacy of your information is protected as all data collected will be securely stored, and only authorised research personnel will have access to it. Measures will also be taken to ensure your confidentiality. Should you feel any discomfort or distress at any stage, we ask that you inform the researcher, and acknowledge your right to withdraw from the study. We will also provide contact details for support services should you feel you require them.

**Contact Information**

University of Pretoria

Department of Psychology
Faculty of Humanities
Ethics Committee: (+27) 12 420 3111

Supervisors

Prof. Nafisa Cassimjee
Tel: (+27) 12 420 2911
Email: nafisa.cassimjee@up.ac.za

Support Services

Itsoseng Psychological Clinic
Mamelodi, Pretoria
Tel: (+27) 18 338 249

Student Researcher

Gabriella Nicolaou
Tel: (+27) 83 403 5390
Email: u15367755@gmail.com

Dr. Nicoleen Coetzee
Tel: (+27) 12 420 2919
Email: nicoleen.coetzee@up.ac.za

**Part II: Consent form**

**Participant Code:**

| | | | |
|---|---|---|---|
| | | | |

The University of Pretoria has asked me to participate in this study for research purposes. I hereby confirm that I give my consent to participate. I would like to confirm the following:

- I have been informed and am aware of the nature, procedures, and potential risks associated with the study;
- If applicable, I agree to have my interview audio-recorded;
- I have been assured that my confidentiality will be protected, as all my information will be kept safe on a password protected computer;
- I acknowledge that the information will be used for research purposes only, and that the data collected in this study may be stored to use for future research endeavours;
- I am aware that my participation in the study is voluntary and that I have the right to withdraw at any stage without any negative consequences;
- I have received the contact numbers of the university, researcher, supervisors, and counselling services and am able to contact them if I have any questions or concerns

**Please complete the following and return it to the researcher:**

**First name:**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

**Surname:**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

**Participant signature:** _____

**Researcher signature:** _____

**Date:** _____

## Appendix C: Socio-Demographic Questionnaire

**UNIVERSITY OF PRETORIA**
**DEPARTMENT OF PSYCHOLOGY**
**March 2017**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

**Participant Code:**

| | | | |
|---|---|---|---|
| | | | |

**Date and Time:**

| Y | Y | Y | Y | M | M | D | D |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| H | H | M | M |
|---|---|---|---|
| | | | |

1. **Age (years):**

| |
|---|
| |

2. **Gender:** (Please tick the appropriate response)

| 1 | Female | |
|---|---|---|
| 2 | Male | |

3. **Employment status:** (Please tick the appropriate response)

| 1 | Employed | |
|---|---|---|
| 2 | Unemployed | |

4. **Level of education:**

| A. What is the highest grade that you have passed at school? | | | | |
|---|---|---|---|---|
| B. Do you have a diploma? | 1 | YES | 2 | NO |
| If yes, please specify | | | | |
| C. Do you have a degree? | 1 | YES | 2 | NO |
| If yes, please specify | | | | |

5. **English** is my _____ (*First/ Second/ Third/ Forth*) language. (Please fill in the appropriate response)

**6.** **Languages:** (Please tick the medium of instruction in the following scenarios below)

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | English | isiZulu | Sepedi | Afrikaans | Other Specify _____ | Not applicable |
| A. Home language | | | | | | |
| B. Primary school | | | | | | |
| C. High school | | | | | | |
| D. Tertiary school | | | | | | |

7. **Nature of interventions at the clinic:** (Please answer the following questions)

| | | | | |
|---|---|---|---|---|
| A. How long have you been attending the clinic? | | | | |
| B. How often do you attend the clinic? | | | | |
| C. Which professionals are you currently seeing? | | | | |
| D. Do you attend therapy? | 1 | YES | 2 | NO |
| If yes, please specify nature of therapy | | | | |
| E. Do you take any medication? | 1 | YES | 2 | NO |
| If yes, please specify what type of medication | | | | |

**Appendix D: Interview Guide**

1.  What is your first thought that comes to mind when I say anxiety?

2.  What did you generally think about anxiety before today?

3.  Describe how the vimeo has changed what you think about anxiety

4.  What do you think about anxiety now?

5.  Tell me about some of the other emotions you feel when you are anxious

6.  Describe the emotions you experienced when you watched the vimeo

7.  Now that you have seen the vimeo, how will it influence your anxiety in the future?

8.  What did you know about anxiety before today?

9.  What did the vimeo teach you about anxiety that you didn't already know?

10. What do you know about anxiety now?

11. Which parts of the vimeo did you particularly like?

12. Which parts of the vimeo did you particularly dislike?

13. How do you think others could benefit from watching this vimeo?

14. How do you think the vimeo can be improved?

**Appendix E: Ethics Clearance Certificate**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Research Ethics Committee

27 January 2017

Dear Prof Maree

| | |
|---|---|
| **Project:** | **The utility of a vimeo as a neuro-psycho-educational tool for individuals with anxiety** |
| **Researcher:** | **G Nicolaou** |
| **Supervisor:** | **Prof N Cassimjee** |
| **Department:** | **Psychology** |
| **Reference number:** | **15367755(GW20170113HS)** |

Thank you for the application that was submitted for ethical consideration.

I am pleased to inform you that the above application was **approved** by the **Research Ethics Committee** on 26 January 2017. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

The Committee requests you to convey this approval to the researcher.

We wish you success with the project.

Sincerely

**Prof Maxi Schoeman**
**Deputy Dean: Postgraduate Studies and Ethics**
**Faculty of Humanities**
**UNIVERSITY OF PRETORIA**
**e-mail:tracey.andrew@up.ac.za**
Kindly note that your original signed approval certificate will be sent to your supervisor via the Head of Department. Please liaise with your supervisor.

---

Research Ethics Committee Members: Prof MME Schoeman (Deputy Dean); Prof KL Harris; Dr L Blokland; Dr R Fasselt; Ms KT Govinder; Dr E Johnson; Dr C Paneblanco; Dr C Puttergill; Dr D Reyburn; Prof GM Spies; Prof E Taljard; Ms B Tsebe; Dr E van der Klashorst; Mr V Sithole

**Appendix F: An overview of all response codes and their supporting data extracts**

| Code | Code Title | Data Extract | Participant |
|---|---|---|---|
| 1 | **Limited knowledge/ understanding about anxiety** | *"To be honest, I didn't know that whatever I went through, it's called anxiety. Yes… [sic] Today. You just gave me a name of what I went through. I didn't know the name of what I went through in the past."* | 6 |
| | | *"I didn't know that it comes from our brain, or that it comes from our mind, I didn't know that it was created when we were younger. I didn't know, actually, I didn't know much about it."* | 2 |
| 2 | **Previous perception that anxiety difficult to manage** | *"So, it's like, being affected by pressure, a lot of things, thinking a lot, ya… [sic] Mmm, yes… That you can't control… [sic] Very difficult to manage"* | 1 |
| | | *"Uhm, I felt like change, like anxiety can be something else, can be changed… [sic] It made me feel happy… [sic] Because I never thought anxiety can be solved, and now as I was seeing the video, then yah."* | 5 |
| 3 | **Previous feelings of a lack of control** | *"It's panic and predicting the future, that 'Ok I won't be able to do this. I won't be able to deal with this situation. I'm gonna need help with, or I'm going to start crying', or it's just always panic and feeling like you're out of like, the situation is out of your control."* | 5 |
| | | *"[Sic]… it's just always panic and feeling like you're out of like, the situation is out of your control."* | 4 |
| | | *"[sic]… I was always alone so I just felt like everything is just out of control."* | 5 |
| | | *"[sic]… When you get this anxiety and stuff, panic attacks, you feel like you are, you are going crazy, like you are losing your mind. So, you can't handle certain things.* | 3 |
| 4 | **Wanting to be in control of the situation** | *"I think I kind of learnt, let me say I want to still learn, on how to control it. I'm still on that process."* | 2 |
| | | *"Uhm, my thoughts of dealing with anxiety, I thought it was, you have to take some medication in order to control it. And, but, after attending Itsoseng Clinic, I had to do some breathing session in order to control it.* | 2 |
| 5 | **Learning that anxiety can be manageable/ changed** | *"It can be manageable… [sic] The smart brain, it tells my… that other brain… that no, this thing can be changed." – Participant 1* | 1 |
| | | *"Now… Hhmm… About anxiety. No longer will I have anxiety… What I can say is that you can manage it. Yeah. Like there are ways that you can manage anxiety, like it can never like, I know anxiety, to control of your life… You can actually manage it."* | 3 |

| | | | |
|---|---|---|---|
| | | *"Yes, it can be manageable. It doesn't mean that if you have anxiety it's the end of the world. You can manage it and I know that when you practice something, you practice the brain gets used to whatever you're doing."* | 5 |
| | | *"I think the video also had that impact. It tells me that even if you're old, even if you're gonna be older, you can still have change of mind, and see things differently."* | 2 |
| 6 | **Learning that they can take control of their lives/ situation/ anxiety** | *"I feel like right now, I feel like I'm the one who's in control, so I can change it… [sic] From the video, it really shows that it is my mind, it is my mind, my mind is the one that I am in control"* | 2 |
| | | *"Now… Hhmm… About anxiety. No longer will I have anxiety… [sic] I know anxiety, tries to control of your life… You can actually manage it… [sic] The minute you face your fears I think, I think becomes better"* | 3 |
| | | *"The last part where the boy has grown and now he has learnt how to deal with the fear that was instilled in him of dogs… [sic] I think that's the part that I liked the most, it just teaches you something that you can, you are smarter than anything that'll come your way"* | 4 |
| 7 | **Learning about the personal role of our brain/ mind in causing anxiety** | *"I could say it taught me that we are the ones who are creating it through our minds, through our impurity mind, and through this, and then the smart brain is the one that creates it… [meh] I didn't consider it that it comes through our mind. That's what I, I didn't know that we are the ones creating it."* | 2 |
| 8 | **Learning about the role of the brain/ mind in managing anxiety** | *"It can be manageable… [sic] The smart brain, it tells my… that other brain… that no, this thing can be changed."* | 1 |
| | | *"He was a lot younger, and then he has a bad experience. But his smart mind told him that the dog is friendly, it's nice. As you grow up, I think you also have to change your mind."* | 2 |
| | | *"I learnt more about that and how as you grow up the smart brain develops and then as you use it more, your brain gets used to using the smart brain… because as, when he was playing with the dog I could see that 'Ok the impulse was a bit overshowed by the smart brain'… That's why he was able to react in a positive way with the dog."* | 5 |
| | | *"As the video explains, anxiety is something that you can control using your smart brain… [sic]"* | 3 |
| | | *"It does, definitely. It makes me feel a whole lot better because now I think I have a better understanding of how to deal with the, with other situations in my life. To use my smart brain more instead of letting things trigger me a lot and eventually for me to explode."* | 4 |

| | | | |
|---|---|---|---|
| | | *"Every time like I feel this thing coming, like I try to calm myself down. Yes. Take deep breaths myself."* | 3 |
| | | *"I learnt a lot. Yeah. Like what causes anxiety and how you can avoid it, how you can calm it down, and yeah."* | 4 |
| 9 | **Learning ways in which to deal with anxiety by staying calm** | *"I've learnt that if something did hurt you in the past, it doesn't mean that its going to hurt you in the present. Yes, so whenever you see that thing you have to relax, until that thing shows the true colours. Yes, that's why you can relax… You don't have to jump whenever you see a dog, or run whenever you see a dog… Some dogs are friendly."* | 6 |
| | | *"Like it shows that if you do this, like if you calm yourself down and realise that, ok, this might not be like a life-threatening situation, and kind of self-doubt, and then it can be fine. So, it has a positive message, yeah."* | 3 |
| | | *"[sic]…I'll start reacting differently to situations instead of just panicking first and then breathe and then… So, I think I'll go straight to maybe counting from one to ten, try to calm down and then look at the situation again instead of panicking, because my mind just got used to jumping straight to panic."* | 5 |
| 10 | **Learning to deal with anxiety by using a different approach to the situation** | *"[Sic] The brain got used to me panicking to everything. If I can just come back, maybe turn things around and then train my brain to calm down first or look at the situation in a different way, and the more I practice this the more I am gonna get used to it."* | 5 |
| 11 | **Learning to deal with anxiety by using positive thinking** | *"[Sic] Every time you experience anxiety, you don't then have to give in, you can just relax and then think of the positives, then you can manage it yeah."* | 3 |
| | | *"I'll think about this video, and how to change the negative thoughts into good thoughts"* | 1 |
| 12 | **Learning to deal with anxiety by being solution focused** | *"So, it's first panic and then moving on to the solution. And what I've been trying to do is not panicking, moving straight to the solution."* | 5 |
| 13 | **Learning to deal with anxiety by using rational thinking** | *"I'll think the situation through first instead of panicking. Because most of the time it's not even a big deal as I make it to be"* | 5 |
| 14 | **Learning that anxiety started early in life** | *"Maybe that part of maybe like experiencing things from a young age, like they tend to build up and stuff… Yeah, that was like a new thing for me, I didn't like really have an insight about that."* | 3 |
| | | *"I like that it explained from birth, because with most people we think that maybe it affects you from age 16, or it's because, it's because maybe sixteen-year olds are able to maybe talk and tell you that they're anxious. And I feel like a lot of people are not aware that you can have, maybe a 6-year-old that"* | 5 |

| | | | |
|---|---|---|---|
| | | *has anxiety… But you won't be able to see because we don't know much about depression and anxiety."* | |
| | | *"That we are born with this, what do you call it, trigger something… [sic] The ignition switch. And that whatever the reaction we get from a young age, from our surroundings, will affect us even in years to come, up until you, at a point where you understand why certain things happen, and you know how to deal with them without being anxious."* | 4 |
| 15 | **Recognition that anxiety is not always rational** | *"[sic]… like because now like you are able to use your mind to kinda like cope with that anxiety… Because anxiety [inaudible]… there are things that you make up in your mind, they're not really there… You make up like in your mind, they're your fears but then you create them all as if they are happening."* | 3 |
| | | *"It's that we as people cause anxiety to ourselves. It's not something that… I wouldn't say it's a condition that you just wake up with, it's just something that you keep on nursing, and it grows to become this anxiety of which, in essence, it really was nothing, if you learnt to deal with it in a different way."* | 4 |
| | | *"[sic]… most of the time it's not even a big deal as I make it to be. And I'll stop blaming myself because sometimes I feel like I… I maybe triggered it from the first place."* | 5 |
| 16 | **Anxiety is a broad and generalised condition** | *"… [sic] So that's when I saw that it affects everyone… there were white and black people, there were male and female… Young and old… People with kids, people who are still in school, people who have retired… So that's when I saw that it affects anyone, anywhere."* | 5 |
| | | *"Yes, because it doesn't… Anxiety, it's not like based on one thing, it's generalised, so whenever you watch it… [sic] So the dog triggering him, it could be anything triggering someone. Yes."* | 6 |
| 17 | **Vimeo reminds of one's own situation** | *"Ok, I guess. But one thing that I learnt… Whatever the thing that hurts you in the past, you'll never forget it… [sic] I thought, for myself, I could see that I cannot forget what I went through, and whether it feels pain. Like forgetting something that you went through, especially if you were young, it's kind of difficult."* | 6 |
| | | *"You know it kinda like reminded me of my situation and stuff, yeah. Like there are things that I went through, like… I sit and just think about like the things that happened to me. And like, like, experience those feelings again."* | 3 |
| 18 | **Vimeo evokes anxious memoires/ feelings** | *"I sit and just think about like the things that happened to me. And like, like, experience those feelings again."* | 3 |

| | | | |
|---|---|---|---|
| | | *"Uhm, when I actually saw the dog approaching, I actually felt like 'Ok, OMG here's the danger'… So, I got the impulse kicked in and then I saw that there's danger." – Participant 6* | 5 |
| 19 | **Others can benefit from the vimeo** | *"I believe that everyone goes through that [anxiety] at some point. Yeah, so yeah. I think it [the vimeo] could be used, yah."* | 3 |
| | | *"I think they [others watching the vimeo] could benefit from it [the vimeo] by knowing that it [anxiety] was something that was… they got it from when they were a lot younger, and then that it is not their fault, and then they can still change… [sic] They [others watching the vimeo] will feel the same way. I think it [the vimeo] will change the way they think about anxiety"* | 1 |
| | | *"I think I will handle situations better now and I think it also makes a lot of sense because they said this ignition thingy, it grows more when you're 3 years old. And like I have a 4-year-old daughter so I know now how to deal with her in certain situations so that she would not get to the point where she's anxious too."* | 4 |
| 20 | **Anxiety is not their own fault** | *"I'll think the situation through first instead of panicking. Because most of the time it's not even a big deal as I make it to be. And I'll stop blaming myself because sometimes I feel like I… I maybe triggered it from the first place. I feel like maybe I stress too much, or maybe I don't sleep enough… Or maybe it's because I don't exercise. Also, I will stop blaming myself."* | 5 |
| | | *"I think they could benefit from it by knowing that it was something that was… they got it from when they were a lot younger, and then that it is not their fault, and then they can still change…"* | 2 |
| | | *"The part about like, your brain, using your brain and stuff, like… How your brain works, because like when you get this anxiety and stuff, panic attacks, you feel like you are, you are going crazy, like you are losing your mind. So, you can't handle certain things. If a person like, talks about a certain thing, like maybe… Yoh, this guy is crazy, then you start thinking about that you're crazy, crazy, like I'm going crazy. Yeah, so…"* | 3 |
| 21 | **Future reference back to vimeo** | *"I'll think about this video, and how to change the negative thoughts into good thoughts"* | 1 |
| | | *"Yah, it [the vimeo] can calm me down, because, like, it has a positive message. Yah. Because if you can see… at the start of the video, it talks about like [sic]… how anxiety is like… how the past experiences like can influence what you are feeling now, and then at the end of the video, like it shows that if you do this, like if you calm yourself down and realise that, ok, this might not* | 3 |

| 22 | **Value in learning about the brain** | *"The part about like, your brain, using your brain and stuff, like… How your brain works… [sic] The part that like, where they explain the brain, like how the brain works. Like yah, if you use your, you know, smart brain and stuff… [sic]"* | 3 |
| | | *"That one of the brain. The different brains… [sic] The way they function"* | 1 |
| 23 | **Wanting to learn more from the vimeo** | *"I would add more information… [sic] Yah, like methods you can use, maybe, like if you find yourself in that situation."* | 3 |
| | | *"It was a bit too short and more maybe information on the brain and maybe other parts of the brain that affect…"* | 5 |
| | | *"Could I say… it can be changed by giving more details about it and the symptoms and… also on how to deal with it, and how to control it… [sic] How to control it, how do I get over it? Howe do I use it? How do I understand my smart brain?"* | 2 |

*be like a life threatening situation, and kind of self-doubt, and then it can be fine. So, it has a positive message, yeah."*