

**The Influence of a Positive Psychological Intervention Programme on Kenyan
First-Year University Students' Well-Being: A Mixed Methods Study**

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degree and title of **Doctor of Philosophy (Dr. phil.)**

by

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Dedication

This study is dedicated to my mother, Elizabeth Waithaka. Though you did not see the end of this dissertation journey, thank you for believing in me and cheering me on at the start. Your sincere love touched countless lives. You are deeply missed, Mum.

Zusammenfassung

Die Studie untersuchte, wie sich positive psychologische Interventionen auf Facetten des Wohlbefindens von Studienanfängern an einer kenianischen Universität auswirken, und entwickelte auf der Grundlage der Ergebnisse Leitlinien, die das Wohlbefinden der Studenten bei der Umsetzung dieser Interventionen fördern können. Um dieses Ziel zu erreichen, wurde in der Studie ein mehrphasiges Forschungsdesign mit Mixed Methods verwendet. In Phase I wurde eine Querschnittserhebung durchgeführt, um das Ausmaß des Wohlbefindens und der Symptome psychischer Erkrankungen unter den Studierenden im ersten Studienjahr ($n = 234$) zu ermitteln. Es wurden ein biografischer Fragebogen und Fragebögen zur Bewertung des Wohlbefindens, der Depression und der Ängste ausgefüllt.

In Phase II wurden die Teilnehmer der Interventionsgruppe ausgewählt und mit einer Kontrollgruppe verglichen. Die Interventionsgruppe nahm an einem 7-wöchigen Positive Psychologische Interventionen Training (Flourish Forward Programme) teil, das auf Seligman's PERMA-Modell des Wohlbefindens basiert. In Phase III wurden nach der Intervention Messungen bei der Interventions- ($n = 34$) und der Kontrollgruppe ($n = 34$) durchgeführt, um festzustellen, wie sich das Niveau des Wohlbefindens, der Depression und der Ängste nach dem Positive Psychologische Interventionen training verändert hat. In halbstrukturierten Interviews wurden die Erfahrungen der 17 Teilnehmer mit dem Training in Bezug auf ihr Wohlbefinden untersucht. Die qualitativen Daten wurden inhaltsanalytisch ausgewertet. In Phase IV wurden zusammenfassend reflektiert und Leitlinien entwickelt, um das Wohlbefinden der Studierenden bei der Durchführung von Positive Psychologische Interventionen zu unterstützen.

Die Ergebnisse aus Phase I deuteten darauf hin, dass die Studienanfänger ein mittleres Niveau des allgemeinen Wohlbefindens, eine leicht unterdurchschnittliche Lebenszufriedenheit und leichte Symptome von Depression und Ängstlichkeit aufwiesen. In

Phase III zeigten die quantitativen Daten, dass die Interventionsgruppe im Vergleich zur Kontrollgruppe signifikante Verbesserungen in den PERMA-Facetten des Wohlbefindens und der Lebenszufriedenheit aufwies. Darüber hinaus war in der Interventionsgruppe im Vergleich zur Kontrollgruppe ein signifikanter Rückgang der selbstberichteten Symptome von Depressionen und Angstzuständen zu verzeichnen. Die qualitativen Ergebnisse deuten auf eine Verbesserung des Wohlbefindens durch die Umsetzung der Positive Psychologische Interventionen Trainings hin. Die Verbesserung des Wohlbefindens wurde durch Faktoren wie die Struktur und Durchführung des Trainings und positive Verbindungen innerhalb des Trainings begünstigt. Es wurden Leitlinien zur Förderung des Wohlbefindens der Studierenden bei der Umsetzung von Positive Psychologische Interventionen vorgeschlagen.

Schlüsselwörter:

Hochschulbildung, Positive Psychologische Interventionen, Übergang, Wohlbefinden,

Abstract

The study examined how positive psychological interventions affect facets of first-year students' well-being at a Kenyan university and, based on the findings, developed guidelines that may facilitate students' well-being while implementing these interventions. The study utilised a multiphase mixed methods research design to meet this aim. During Phase I, a cross-sectional survey design was employed to determine the incidence of well-being and symptoms of mental illness among first-year university students ($n = 234$). A biographical questionnaire and questionnaires assessing well-being, depression and anxiety were administered.

In Phase II, intervention group participants were selected and matched with a control group. The intervention group participated in a 7-week PPI programme (Flourish Forward Programme) based on Seligman's PERMA model of well-being. During Phase III, post-intervention measures were administered to the intervention ($n = 34$) and control group ($n = 34$) to determine how levels of well-being, depression and anxiety changed following the PPI programme. Semi-structured interviews were conducted to explore 17 participants' experience of the programme on their well-being. The qualitative data were thematically analysed. In Phase IV, the findings were integrated, and guidelines were developed to support students' well-being while implementing PPIs.

Results from Phase I suggested that the first-year students experienced moderate levels of overall well-being, slightly below-average life satisfaction and mild symptoms of depression and anxiety. In Phase III, quantitative data indicated that the intervention group experienced significant improvements in the PERMA facets of well-being and life satisfaction compared to the control group. Moreover, there was a significant decrease in self-reported symptoms of depression and anxiety in the intervention group compared to the control group. The qualitative findings indicated improvements in well-being due to the

implementation of the PPIs. The improvements in well-being were facilitated by factors such as the structure and delivery of the programme and positive connections within the programme. Guidelines to support students' well-being when implementing PPIs were proposed.

Keywords:

Higher education, Positive Psychological Interventions, Transition, Well-being,

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Abbreviations:

HE: Higher Education

PPI: Positive Psychological Intervention

SSA: sub-Saharan Africa

Chapter 1: Rationale, Background and Research Aims

1.1.Introduction

First-year university students tend to experience a range of challenges that influence their overall well-being (Maymon & Hall, 2021; Onyango & Birech, 2024). Though there has been a steady growth in studies on well-being within universities (Hernández-Torrano et al., 2020), there is a paucity of research on this in sub-Saharan Africa. This is despite the widely reported benefits of investing in overall student well-being beyond mere academic performance (Baik et al., 2019; Lambert et al., 2019). These benefits include successful academic and career development, increased engagement and enriched life experiences (Cárdenas et al., 2022; Khatri et al., 2024). In addition, there is evidence that positive psychological interventions (PPIs) can increase well-being (Carr et al., 2024). However, research into its applicability in higher education in sub-Saharan Africa is still limited. This chapter discusses this study's background and rationale and provides the research questions and aims. In addition, the chapter discusses the theoretical framework underpinning this study. Thereafter, the possible contributions are considered. The chapter concludes with an overview of the thesis.

1.2.Background and Rationale of the Study

Starting university is an exciting time for first-year students, offering a new environment in which to gain knowledge and skills for the workforce. Furthermore, the higher education environment provides students a space to develop their talents and personal growth (Elwick & Cannizzaro, 2017). However, despite the increased levels of freedom that the higher education environment offers, this period is often accompanied by new responsibilities and expectations that can be burdensome for the student (Devis-Rozental &

Barron, 2020). Thus, many entrants experience considerable hurdles that could affect their well-being and integration into the university (Wangeri et al., 2012).

To elaborate, some of the challenges experienced by first-year students include homesickness (English et al., 2017; Thurber & Walton, 2012), difficulties adjusting to an increasing workload (Naylor et al., 2018) and a sense of "not belonging" in university life (Edjah et al., 2019). In addition, research indicates that numerous university students experience mental health challenges (Auerbach et al., 2016, 2018; Othieno et al., 2014). Few studies have been conducted in Africa on the transitional challenges that students experience but challenges similar to global concerns are highlighted (Chidzonga, 2014). For example, a study conducted in Kenyan public universities reported the following transitional challenges: inadequate access to support services, struggles with adjusting to academic programs, unhealthy eating habits, disharmony with roommates, and a lack of autonomy (Wangeri et al., 2012). Other challenges include financial challenges (Pretorius & Blaauw, 2020) and stress-related behaviours such as alcohol and drug abuse (Ndegwa et al., 2017). In addition, symptoms of depression seem to be present among many university students and fairly common among first-year students (Othieno et al., 2014).

To assist students in dealing with these challenges, most universities in Kenya offer some level of support, such as financial assistance, healthcare and academic support, and counselling (Michubu et al., 2017; Njui, 2018). However, there are still gaps in the quality and accessibility of such services, and there is a dearth of evidence on their overall effect on student welfare within the higher education sector in Kenya (Owuor, 2012). This study is situated in Kilifi County in coastal Kenya, where the vulnerability of university students' well-being may be further compromised by inadequate mental healthcare facilities and under-resourced healthcare (Bitta et al., 2017).

Therefore, supporting the well-being of first-year students is a pertinent concern. Different definitions of well-being have been proposed in the literature, and therefore, the conceptualisation of well-being often varies (e.g., Diener et al., 2010; Keyes, 2005; Seligman, 2011). Two primary approaches with philosophical foundations have been used to describe well-being: the hedonic approach and the eudaimonic approach. The hedonic approach tends to be associated with the pursuit of sensual pleasures and enjoyment (Ryan & Deci, 2001) while the eudaimonic approach is associated with the fulfilment of one's potential, finding meaning and purpose (Ryff, 2023; Ryff et al., 2021). Most researchers view these approaches as complementary rather than mutually exclusive and assert that the pursuit of both hedonia and eudaimonia contributes to higher levels of well-being (Huta, 2016). Therefore, well-being often encompasses both feeling good and functioning well (Keyes & Annas, 2009).

The PERMA model of well-being is a multidimensional construct that includes both hedonic and eudaimonic aspects. PERMA refers to positive emotions (P), engagement (E), relationships (R), meaning (M), and accomplishment (A) and these facets are considered central to increasing well-being (Forgeard et al., 2011; Seligman, 2011). The *positive emotions* aspect refers to deriving enjoyment from one's activities and could include feelings of gratitude, inspiration, peace, and joy. The *engagement* aspect refers to being completely immersed or absorbed in activities and taking a keen interest in the task at hand. It involves identifying one's strengths, utilizing them, and building them by applying them in our daily lives. The *relationships* facet refers to being authentically connected to others, while the *meaning* aspect refers to experiencing a purposeful existence through one's activities. The *accomplishment* aspect refers to achievement at the highest possible level and a sense of success in a particular domain (Seligman, 2011). According to Seligman, flourishing is reflected by higher scores on measures of the PERMA facets (Hone et al., 2014). This study conceptualises well-being according to the PERMA model.

Although existing research that has tested and supported the PERMA model's validity (Pezirkianidis et al., 2021; Waigel & Lemos, 2023), there have been calls to conduct more studies using the PERMA framework (Gander et al., 2016; Lambert D'raven et al., 2015). The PERMA model, developed in a Western context, requires further examination across diverse cultures (Khaw & Kern, 2015). Hence, within this study, a programme will be developed based on the PERMA model of well-being, to add to the existing literature on the model's applicability in facilitating well-being in different contexts.

Besides the PERMA facets, this study included life satisfaction as an indicator of well-being. Hone et al., (2014) suggested including life satisfaction alongside measures such as Seligman's (2011) PERMA model as it is a related though separate construct. Life satisfaction is considered a conscious evaluation of one's life, referring to one's general satisfaction with life (Diener et al., 2018) or with specific domains such as one's health, work, or relationship.

Well-being has often been conceptualised as the absence of psychopathology or mental illness such as depression or anxiety (Auerbach et al., 2018). However, well-being is now understood not solely as the absence of mental illness but including the presence of positive emotions, such as social connection and positive feelings (Butler & Kern, 2016). Moreover, the absence of mental illness, such as depression and anxiety, does not necessarily mean the presence of positive mental health (Keyes, 2005; Westerhof & Keyes, 2010). Therefore, the research study aimed to evaluate both the presence of well-being and the absence of depression and anxiety in first-year students.

Empirically validated interventions focusing on student well-being are valuable in helping university students cope with transitional challenges (Lambert et al., 2019; Rugira et al., 2015). Positive Psychological Interventions (PPIs) are activities that have been empirically validated to promote the frequency and expression of positive emotions and

facilitate the use of thoughts and actions that enhance well-being (Hendriks et al., 2018). PPIs have been shown to improve emotional and psychological well-being and have been implemented in various contexts and populations (Bolier et al., 2013; Carr et al., 2024; Donaldson et al., 2021; Koydemir et al., 2021; Weiss et al., 2016).

Despite existing evidence indicating that PPIs are beneficial for boosting the well-being of students (e.g., Dorri Sedeh & Aghaei, 2024; Kotera & Ting, 2019; Smith et al., 2023) and even in alleviating depressive and anxiety symptoms (Bolier et al., 2013; Carr & Finnegan, 2015), there is a lack of research on the application and effect of such interventions in Kenyan universities. Furthermore, there is a paucity of research on programmes utilising the PERMA model in Kenyan universities. However, in other higher education settings, PPIs based on Seligman's (2011) PERMA model of well-being have been found to be effective in improving students' well-being (e.g., Cheng & Chen, 2021; Gander et al., 2016; Lambert et al., 2019; Yang et al., 2024). Moreover, there is a scarcity of qualitative research on how first-year students experience the implementation of PPIs. Consequently, additional research is required to broaden the scope of knowledge. The researcher, therefore, proposes that a PPI programme based on the PERMA model may also be relevant for facilitating the well-being of first-year students at a Kenyan university.

1.3.Theoretical Framework

The research study was grounded within the framework of positive psychology. Positive psychology is the scientific study of what makes life worth living (Peterson, 2008). It focuses on mobilizing strengths and improving the well-being of individuals and communities without negating distressing issues (De Villiers, 2014). In 1998, Martin Seligman, the then president of the American Psychological Association, strongly encouraged psychologists to rekindle research focusing on well-being and what is positive in life (Seligman & Csikszentmihalyi, 2000). Nonetheless, positive psychology did not entirely

originate in the late 90s; many psychologists had been investigating topics related to positive psychology long before the term positive psychology was coined (Rusk & Waters, 2015).

There has been a widespread supposition in the twentieth century that studying positive emotions comprised dealing with trifling matters rather than embarking on more urgent issues such as the treatment of mental illness (Compton & Hoffman, 2019). However, positive psychologists affirm the importance of studying mental illness but add that there are additional benefits from looking into positive human functioning (Carr & Finnegan, 2015). Furthermore, since its inception, positive psychology has broadened its scope, incorporating diverse cultural perspectives to enhance the understanding of well-being (Lomas et al., 2020).

Internationally, positive psychology has been growing in terms of related research and application (Chang et al., 2022; Kim et al., 2018). However, in sub-Saharan Africa, South Africa is considered the country that has made the most notable progress in the development of the field of positive psychology (Guse, 2022; Wang et al., 2023; Wilson Fadiji et al., 2024). A systematic review by Kim et al. (2018) found that 79% of published positive psychology research in Africa originates from South Africa. Though the development of positive psychology in the rest of sub-Saharan Africa has been comparatively limited, the field's growth is promising (Appiah, 2022, 2024). As Wilson Fadiji and Wissing (2022) posited, positive psychology's 'non-threatening character' (p.342) is an added benefit as it promotes well-being by acknowledging what is working well while being mindful of hardships and struggles that affect well-being in sub-Saharan Africa. Therefore, this study applied the principles of positive psychology to facilitate the well-being of first-year students within this context.

1.4. Research Questions

The study's main aim was to investigate the influence of a positive psychological intervention programme on the well-being of first-year students at a university in Kenya. As such, two broad questions were formulated:

1. What changes occur in first-year students' well-being after participating in a positive psychological intervention programme?

To answer this question, the following objectives were set:

- To develop a positive psychological intervention programme based on Seligman's (2011) PERMA model of well-being;
- To investigate levels of well-being as well as depression and anxiety (symptoms of mental ill-health) among first-year students- a quantitative study;
- To implement a positive psychological intervention programme; and
- To examine levels of well-being, depression, and anxiety among the first-year students after taking part in the positive psychological intervention programme -a quantitative study.

2. How did the participants experience the positive psychological intervention programme?

The following objectives were set to answer the above question:

- To explore first-year students' experience after taking part in the positive psychological intervention programme- a qualitative study;
- To explore the participants' perceptions of the influence of the programme on their thoughts, emotions, behaviour, or general well-being; and
- To explore the specific aspects of the programme that contributed to the participants' well-being

The findings of both questions would lead to the following final objective:

- To propose a framework for implementing a positive psychological intervention programme to enhance student well-being among Kenyan university students.

1.5.Possible Contribution of the Study

This study could make a theoretical contribution to the existing literature as there is limited research into applying PPIs in non-western cultures (Kim et al., 2018; Lambert et al., 2019). Moreover, there is a dearth of research on interventions that target the well-being of university students in Africa (Guse, 2022; Rugira et al., 2015). As one of the first studies examining the impact of PPIs on the well-being of first-year students in Kenya, this research aims to contribute valuable insights to the academic field. The mixed methods research approach employed in this study could be valuable by providing in-depth insights into the experiences of PPIs among first-year students.

Concerning applied contribution, the research may help to determine context-specific positive psychology interventions (Appiah et al., 2020) and identify adaptations needed for the PPIs to be effective for use with Kenyan university students. Furthermore, the PPI programme would be a helpful resource that would be available to higher education institutes in Kenya to support the well-being of the students.

1.6.Overview of the Study

This chapter presented a general overview of the study, including the background and rationale for the study, as well as the research questions and objectives. Chapter 2 focuses on the transition of first-year students to higher education, including the challenges that these students tend to face during this process. Chapter 3 discusses positive psychology as the study's theoretical framework. Chapter 4 provides an overview of well-being and positive psychological interventions used to promote well-being. This chapter also highlights the PERMA model of well-being, the framework used to design this study's intervention

programme. Attention is also given to the use of PPIs in sub-Saharan Africa and with students in higher education. Chapter 5 explains the research method employed in this study, while Chapter 6 presents and discusses the research findings. Chapter 7 concludes the thesis by summarizing the findings and proposing guidelines for implementing PPIs with students. In addition, the chapter presents the research limitations and recommendations for future studies.

Chapter 2: First-Year Students' Transition to Higher Education

2.1. Introduction

Transitioning to higher education can be an exciting period for first-year university students; they encounter a new environment with opportunities to gain knowledge and skills that equip them to participate in the world of work. However, this transitional period is also accompanied by new responsibilities and expectations that can weigh on the student (Devis-Rozental & Barron, 2020). Thus, on the one hand, first-year students tend to experience greater freedom and control over their lives than teenagers (Wangeri et al., 2012). However, on the other hand, new entrants may experience challenges that may influence their well-being and their integration into higher education. This chapter briefly defines the transition of first-year students and describes some of the different models in literature used to explain this transition process. Furthermore, the chapter discusses some of the challenges that first-year students tend to face as well as some of the ways research suggests they can be supported during the transition.

2.2. Higher Education Context

Over the years, the higher education sector has significantly grown, with an increase in both the number of institutions worldwide and the number of students enrolling in them (OECD, 2023). In addition, these institutions are diversifying in terms of the different courses that are on offer to students, as having a worldwide reach because of technological innovations including the rise of online education (Chinta et al., 2016; Tara et al., 2023). Pursuing higher education has several benefits for the individual, including social and intellectual development as well as increased employment prospects (Rasciute et al., 2020). Moreover, higher education institutes are regarded as vital in playing a role in the overall

well-being of society such as through promoting the principles of sustainable development (Žalėnienė & Pereira, 2021).

Within sub-Saharan Africa, higher education is considered vital to the continent's economic growth and overall development (Drape et al., 2016). Though student enrolment in sub-Saharan Africa is impeded by obstacles such as funding and institutional capacity, it is projected to keep growing as the college-aged cohort increases (ICEF Monitor, 2018). Historically, access to higher education in this context was reserved for the elite few who could afford it and many would pursue it outside the continent (Mohamedbhai, 2014). However, with the increased access to higher education on the continent, the demographics of those enrolling into higher education institutes have diversified. This now includes those from low-socio-economic status backgrounds, disadvantaged environments and first-generation students (Megbowon et al., 2023).

It has been argued that more focus should be placed on ensuring that students pass their final school exam than on preparing them for the transition into university (Njage, 2019). Student dropouts, which tend to happen during the first year, remain a huge concern for higher education institutes (Megbowon et al., 2023). Accordingly, there has been increased focus over the years on the role of these institutes in student retention as well as growth in studies on students transitioning to higher education (Coertjens et al., 2017). The following sections discuss the transition process of first-year students to higher education.

2.3. Transition to Higher Education

2.3.1. Defining transition

Understanding student transition to higher education has a bearing on research, practice and policy in the area (Gale & Parker, 2014; Winstone & Hulme, 2019). Ecclestone et al.(2010) noted that there is no one concrete definition of a transition, mainly because transitions occur in different contexts. Transition in higher education is often referred to as an

ongoing process (Cheng et al., 2023; Winstone & Hulme, 2019). Volstad et al. (2020) describe the transition from secondary school to higher education as one requiring “rapid change and adaptation” (p.2). The authors also highlighted that this academic transition tends to coincide with a developmental transition from adolescence to young adulthood, where various cognitive, emotional, social, and physical changes occur.

The transition to higher education often requires students to take on more responsibility in planning their studies as there is a change in the student's role requirements. The transition also involves a change in context when a student moves from secondary school to a higher education institute and/or to a new location (Devis-Rozental & Barron, 2020). Thus, Coertjens et al. (2017, p. 359) define students' transition as "any major change in the student's role requirements or study context". This definition was an adaptation of Nicholson and West's (1989, p. 182) definition of transition in the work domain as “any major change in work role requirements or work context”.

Gale and Parker (2014, p. 734) define student transition to higher education as “change navigated by students in their movement within and through formal education”. Coertjens et al. (2017) noted that what links most definitions of transition is the idea of a change taking place. Notably, Gale and Parker's (2014) definition goes beyond acknowledging that change has occurred, as noted by other definitions, and includes the need to look at the resources required to handle the change. The section below outlines some of the models developed to describe the changes students experience during the transition to and within higher education.

2.3.2. Models of student transition

Cheng et al. (2023) noted that although no model fully captures the complexity of a student's transition, these models provide different perspectives on what may hinder or contribute to a successful transition. This section highlights some of these models.

2.3.2.1. Tinto's model of social integration (1975, 1993). This model has often been referred to in higher education literature to conceptualise student transition and retention. Timmis et al. (2022) described Tinto's (1975, 1993) view of transition as a linear process. The model highlighted six successive sequences: The first is the student's 'pre-entry attributes' such as skills, abilities and family background. These attributes influence the second part of the sequence, 'objectives and initial commitments,' which include the student's goals and desire to obtain a degree. The 'experience with the university system' follows as the third phase, and the student's experience in both formal and informal settings has a bearing on the fourth stage, 'integration'.

Integration in the fourth stage of the model refers to the student's social and academic integration in higher education (Tinto, 1975, 1993). Social integration refers to participating in extracurricular activities, the development of relationships with peers and staff and significant social interactions. Academic integration refers to the academic exchanges between students and staff and academic performance. Tinto's (1993) model included external commitments (such as jobs or families) as having a bearing on transition alongside academic and social integration (Naylor et al., 2023). According to the model, a student's social and academic integration directly influences the 'objectives and emerging commitments'. The latter follows next on the sequence and influences the 'results', the final stage. This stage refers to whether the student drops out or persists in higher education.

Tinto, (1975, 1993) model has faced criticism for its overemphasis on social and academic integration as reasons for student retention (Williams, 2011). Further criticism of this model includes failing to consider cultural differences or diverse student populations, including minority students (Montalvo, 2013; Xu & Webber, 2018) and distance education students (Rovai, 2003). However, Tinto acknowledged that there were limitations in the applicability of his model and that student retention requires an understanding of

sociological, economic and psychological factors that may also play a role (Pather & Chetty, 2016).

2.3.2.2. The U-Curve theory of adjustment (UCT). Some models have emphasised the different emotions experienced by students during the various transition stages. One such model is the U-Curve theory of adjustment (UCT) (Lysgaard, 1955; Oberg, 1960; Risquez et al., 2007), which describes transition according to four phases. The first phase, the 'Honeymoon' period, describes the first few weeks in higher education. Students anticipate that university life will be exciting and marked with growth opportunities during this stage. During the second 'culture shock' phase, changes in social life (such as interacting with peers and academic staff, living with new roommates) and changes in the environment, such as living far from home, may lead to feelings of disillusionment, homesickness, isolation, and stress. The third 'adjustment' phase occurs when the student begins to adapt and function effectively and finally enters the 'mastery' phase, where the students have mastered their environment (Cheng et al., 2023; Risquez et al., 2007).

However, it is essential to note that the UCT model was adopted from the literature on missionaries adjusting to different cultural environments (Oberg, 1960) to describe students' transition to university. Furthermore, in a longitudinal study among Japanese students in New Zealand, Ward et al. (1998) found that these students' adjustment did not coincide with the U-Curve model as some students did not necessarily experience a period of culture shock. Nonetheless, the UCT model has provided valuable insight into the adjustment of first-year students, including international students (Kaniki & Kaniki, 2021).

2.3.2.3. Student Adjustment Model. The Student Adjustment Model proposed by Menzies and Baron (2014) includes a 'Pre-departure' phase before students arrive at the higher education institute, where students are described as being in a neutral mood. The model also suggests a 'Honeymoon' phase that international postgraduate students experience

for several weeks after arrival at the university. The model also proposes a 'Party's over' phase similar to the 'culture shock' phase described in the UCT model and a 'Healthy adjustment' phase where students become more accustomed to the new environment and academic demands (Cheng et al., 2023).

2.3.2.4. Student Experience Model. Though the UCT and Student Adjustment Model focus mainly on the first weeks at university, the 'Student Experience Model' (Burnett, 2007) highlights phases beyond these weeks. The Student Experience Model includes six phases: 'Pre-transition', 'Transition', 'Orientation Week', 'First-year student Induction Programmes', 'The Middle Years' and 'The Capstone or Final Year Experience' (Burnett, 2007; Cheng et al., 2023). Like Menzies and Baron's (2014) Student Adjustment Model, the Student Experience Model includes a 'pre-transition' phase where students are considering or preparing to join higher education. Burnett's (2007) model also focuses on the various beneficial activities in each stage to help the students transition. For instance, during the orientation phase, students receive specific information regarding their study programme and are introduced to social networking events.

2.3.2.5. Nicholson's Transition Cycles Model. Nicholson's (1990) Transition Cycles model describes transition as occurring in four stages: preparation, encounter, adjustment, and stabilisation. The first 'preparation' phase happens in secondary school before students join higher education and includes resources that help students prepare for their upcoming role as first-year students. As Tinto's model (1975) described, a student's characteristics, such as personal attributes and family background, also affect how the student experiences this phase (Timmis et al., 2022). According to De Clercq et al. (2018, p. 69), during this preparation stage, students have the following tasks to complete: achieving a state of readiness, developing precise and realistic expectations and being positively motivated to

change. However, factors such as fearfulness and reluctance may hinder a student's progression to the next stage (De Clercq et al., 2018).

The second 'encounter' stage refers to the students' experience once they enter their first year of study (Nicholson, 1990). Critical tasks in this stage include forging links with others, gaining a sense of one's ability to cope, and undertaking the challenge of sense-making. In this stage, students also challenge and adjust their initial beliefs of higher education. As students acclimatise to their new environment, they enter the 'adjustment' phase. A student's cognitive and behavioural commitment to the context plays a role in their adjustment (De Clercq et al., 2018). Timmis et al. (2022) highlighted that this stage coincides with social and academic integration, as depicted in Tinto's (1975) model. Lastly, a student is considered fully adjusted to the higher education context during the 'stabilisation' stage. However, this stage does not necessarily have to occur in the student's first year of study (De Clercq et al., 2018).

The above models bear certain similarities with each other. For instance, the U-Curve theory of adjustment and the Student Adjustment Model highlight the positive emotional experiences that students tend to face at the very beginning of higher education. However, this phase is usually followed by culture shock where students commonly experience negative emotions. The models mentioned in this section, other than the U-Curve theory of adjustment, also emphasize the processes experienced or preparations prior to entry in higher education (Cheng et al., 2023). Tinto's model of social integration, the Student Experience Model and Nicholson's Transitions Cycles model present a continuous view of transition that is not necessarily capped in the first-year of study but can be ongoing in the other academic years.

As Cheng et al. (2023) emphasized, no one model provides an overarching narrative of the transition process to higher education. Rather each model contributes to a deeper

understanding of the emotions that students experience, skills and tasks required and perhaps the activities that can help the first-year students' adjust to the new environment. The models therefore provide an understanding of the phases experienced by first-year students thus highlighting the need for interventions, such as those proposed in this study, to promote a smooth transition to higher education.

2.3.3. Focus areas in student transition research

A large knowledge base on the transition to higher education exists. To help illustrate the breadth of research in transition studies, Noyens et al. (2017) group these studies according to several dimensions. For instance, one dimension involves the phase of transition the research focuses on. Some studies focus solely on the first year of study, while others focus not only on the first year of study but also the year preceding this. Another dimension refers to the outcome of the studies. For instance, some studies investigate objective outcomes, such as persistence or examination marks, whilst others combine objective and subjective outcome variables, such as the students' experiences of the phases.

Studies also vary regarding whether they implement multiple measurement waves or whether they focus on a single moment (e.g., using a cross-sectional design), such as when students enter their first year. Further, there are variations in whether they are multilevel in that they capture contextual level variables (such as the learning environment and experiences) alongside student-level variables (such as self-efficacy beliefs and background characteristics) or focus only on the latter.

Noyens et al. (2017) also describe research on students' transition to higher education according to three major strands. One strand investigates the growth of students' academic competencies, such as changes in academic motivation or cognitive and metacognitive learning strategies. This strand of research focuses on the processes that occur before, during and after transition to the first year of study.

Another strand of research focuses more on first-year students' academic achievement, for instance, through their persistence, dropout rates, course scores, and examination marks. This strand of research seeks to understand why students are successful in their transition. The third strand of research noted by Noyens et al. (2017) involves understanding the students' subjective experiences on aspects such as their adjustment, preparedness or expectations as opposed to objective variables such as course marks.

Gale and Parker (2014) grouped literature describing student transition into three strands or types. The first 'Transition as induction' type includes the first few weeks when students adjust to the higher education environment. Unlike the 'preparation' phase described by Nicholson (1990), literature on transition as 'induction' focuses more on the students' experience in higher education than their experiences before joining their first year of higher education (Gale & Parker, 2014). Therefore, the 'induction' research includes the process of familiarisation with the higher education context and is thus like the 'encounter' phase described by Nicholson (1990).

The second strand conceptualises transition as 'development'. Gale and Parker (2014) note that there are shifts during this stage as the students develop their identity as university students (Holmegaard et al., 2016) and prepare for the next stage beyond university. During this stage, students navigate expectations and social norms while also acquiring skills and knowledge necessary to meet the requirements for their future professions and aspirations. Some transition activities in the 'development' stage include field placements and mentoring programs.

The third type described by Gale and Parker (2014) regards transition as 'becoming' where the students are “navigating multiple narratives and subjectivities” (p.738). This conceptualisation highlights the need to consider students' lived experiences and perspectives (Timmis et al., 2022). Transition as 'becoming' also emphasises that a student's transition is

not necessarily linear; therefore, practices and systems to assist this transition should consider this complexity (Gale & Parker, 2014). In line with this, some researchers (e.g., Taylor & Harris-Evans, 2018; Winstone & Hulme, 2019) challenge the idea of transition as a linear process and argue that ignoring the heterogeneity of students' lived experiences may result in forcing students to conform to established structures.

The above section sought to highlight the broad nature of student transition research and some of the different conceptualisations of the transition process. For instance, some of the research tends to solely focus on familiarization with the higher education environment in their first-year of study whereas other studies consider the year prior to entry. Studies also differ on the measurement period and outcome variables that they choose to focus on. Transition research also tends to examine students' academic competencies and achievement. In contrast, some studies focus more on the students' subjective experiences, identity formation and the navigation of expectations and norms.

The research also highlights that the transition process is not necessarily linear and that the students' experiences of the transition process can vary. Thus, the different dimensions and strands illuminate the nuanced take on the transition process. However, there are certain common challenges that students phase during this process. The following section seeks to illustrate some of the challenges that first-year students face as they transition to higher education.

2.4. Understanding the Challenges of First-Year students

First-year students tend to face several challenges or difficulties as they transition to higher education. Students may experience multiple difficulties at the same time. However, not all students experience these difficulties, and how they appraise these challenges varies. For instance, in a study by Brooker et al. (2017), first-year students not only reported experiencing several difficulties at the same time, but those who perceived the difficulties

they were facing as “harmful or threatening” were less happy than those who perceived the difficulties as “challenging or benign” (p.49). Though this section does not cover the entire scope of challenges that these students experience, it highlights some of the challenges noted in the literature that first-year students tend to face.

2.4.1. Academic challenges:

2.4.1.1. Adjusting of expectations. When first-year students transition to higher education, they often report discrepancies between what they expected of the experience and what they experience upon entry (Gregersen et al., 2021; Holmegaard et al., 2016). For instance, Winstone and Bretton (2013) found that some students expect more guided direction in learning and smaller class sizes than self-regulated learning and larger class sizes. Many first-year students may find the unexpected level of autonomy required in higher education to induce feelings of confusion and anxiety. In addition, Scutter et al., (2011) found that, among first-year students in Australia, 30% had unrealistic expectations of the amount of effort needed for academic success. In secondary school, many students become accustomed to being directed on how to manage their time and they are mostly confined to the school environment. In contrast, they find that they have more independence in the higher education setting and many are unable to cope with the increasing responsibilities and time management (Njage, 2019).

First-year students may also have to adjust not only their expectations of their new context but also their own self-expectations. In a qualitative study of first-year engineering students, Berg et al. (2022) found that students also reevaluate their competencies by making comparisons to other students within their academic programs, which may influence their engagement within these programs. Moreover, a student's academic self-concept can be challenged, particularly after the initial academic assessments in higher education. Students

may find their grades lower than they were accustomed to in secondary school which can lead to increased anxiety (Winstone & Bretton, 2013).

2.4.1.2. Changes in traditional learning. The Covid-19 pandemic also significantly impacted students' learning with a shift from face-to-face to online learning. This shift posed challenges such as adapting to the new learning environment, decreased staff-student interaction, and decreased motivation and concentration in learning (Hill & Fitzgerald, 2020). Moreover, students who had insufficient digital literacy or from disadvantaged backgrounds found online learning difficult to adapt to and heightened inequalities between them and other students (Mntuyedwa & Letseka, 2022). Sartika and Nirbita (2023) noted that post-pandemic students, once accustomed to online learning, also found it challenging to re-adapt to face-to-face learning in higher education institutions.

2.4.2. Social challenges and personal adjustments

2.4.2.1. Social integration challenges and loneliness. Transitioning to higher education presents a new social environment for first-year students who need to make new friends, relate with new peers in class or live with new roommates. Several studies conducted in sub-Saharan Africa (e.g., Edjah et al., 2019; Uleanya & Rugbeer, 2020; Wangeri et al., 2012) highlight that first-year students tend to experience challenges with social integration. Having to form new social connections whilst adjusting to their new context may also exacerbate feelings of loneliness among first-year students. Dagne and Dagne (2019, p. 1) defined loneliness as an "individual's personal, subjective sense of lacking social or familial contact to the extent that they wanted". As Richardson et al. (2017a) described, loneliness does not necessarily mean social isolation, as one could have some social contacts and yet feel lonely. On the other hand, individuals may also not experience loneliness despite having minimal social contact (Rahman et al., 2012). Thus, loneliness occurs when a discrepancy between perceived and desired social contact exists.

Experiencing loneliness has been associated with negative implications for mental health, including depression (Kılınç & Sis Çelik, 2021), as well as for physical health (Foti et al., 2020). Loneliness in students has also been associated with the need for economic support (Özdemir & Tuncay, 2008) and being in a romantic relationship (Dagne & Dagne, 2019). As Richardson et al. (2017a) noted, factors such as being an international student or differences in social class backgrounds may increase a first-year student's risk of experiencing loneliness. In Dagne and Dagne's (2019) study, the prevalence of loneliness was 49.5% in a sample of 404 Ethiopian students. The prevalence of loneliness was significantly higher in first-year students compared to students in upper academic levels. For first-year students, loneliness can be prevalent as many tend to move away from their family home and transition to a new higher education environment (Richardson et al., 2017a).

Moreover, the higher education environment tends to have large classes, which can be a barrier as students may find it more challenging to make connections or feel a sense of belonging with other students (Macaskill, 2013). The students' sense of support from academic staff and peer advisors also plays a role as a student transitions to higher education (Okita, 2024). Meehan and Howells (2018) explored what mattered to students transitioning to higher education through to completion. The findings from the qualitative data were that feelings of belonging, the nature of the academic study, and the academic staff with whom the students interacted influenced their transition experience. Coinciding with these findings, experiencing a lack of support and relationships with staff can be challenging for students (Edwards et al., 2021).

2.4.2.2. Homesickness. Experiencing homesickness may be a barrier to adjusting to a new context for first-year students. Fisher (2016), noted that experiencing homesickness can result in both physical ailments (e.g., increased infection rates and headaches) and psychological disturbances (e.g. depressive mood and anxiety). In a study examining the

relationship between homesickness and first-year college students' adjustment, English et al. (2017) found that 94% of these students stated feeling homesick at some point during the initial ten weeks of higher education. The participants reported feeling less satisfied with their academic and social life in weeks when they experienced higher homesickness.

As Thurber and Walton (2012) noted, moving to a higher education institute may be the first time a student is away from home for a lengthy period. Experiencing a lack of connectedness or belonging (academically or socially) has been linked to student attrition rates in higher education (Strayhorn, 2018). However, English et al. (2017) also found that feelings of homesickness did decrease over the first semester of study. In addition, Sun et al. (2016) stressed that though experiencing intense feelings of homesickness can be harmful and should be addressed, having feelings of missing home is common for first-year students and should also be normalised.

2.4.2.3. Being a 'First-in-family' or 'first generation' student. First-in-family students, also called 'first generation' students, may face unique challenges as they transition to university (Lessky et al., 2021). These students do not have family members who have previously attended university (Vincent & Hlatshwayo, 2018). Compared to peers with families who have attended higher education, first-in-family students lacking familial experience or guidance may find the transition process daunting (Lessky et al., 2021). These students' perception of whether they receive sufficient institutional support also influences their social and academic sense of belonging (Means & Pyne, 2017). In addition, first-in-family students may experience limited access to 'informational capital', which Lessky et al. (2021) described as a limited awareness of unwritten rules of the tertiary environment, which may lead to feeling isolated.

2.4.3. Mental health struggles

The mental health of higher education students is a critical concern for higher education institutes (Abelson et al., 2022). Using the World Health Organization World Mental Health Surveys, Auerbach et al. (2016) investigated the association between mental illnesses with college entry and attrition. In a sample of college students and non-students from 21 countries, they found that not only are mental disorders prevalent among college students but that most onsets occur before college entry and are often untreated. Sheldon et al. (2021) conducted a systematic review with a meta-analysis of the mental health challenges faced by undergraduate students. Their study found that the pooled prevalence of depression and suicide-related outcomes were 25% and 14%, respectively. However, these two studies did not specifically compare the prevalence of mental health problems between first-year students and other undergraduate students. Nonetheless, the studies highlighted the significant burden of these problems on undergraduate students.

Auerbach et al.'s (2018) study focused more specifically on a sample of first-year students from 19 colleges across eight countries. They found that at least approximately one-third of these students screened positive for at least one common DSM-IV substance, mood, or anxiety disorder (35.3% lifetime, 31.4% 12 months). First-year students may experience unique stressors compared to students in higher levels of their higher education journey, which could impact their mental health differently. The higher prevalence of mental disorders among first-year students highlights the need for early detection and treatment to help improve overall functioning and prevent attrition (Auerbach et al., 2016, 2018).

A lack of mental health awareness and stigma related to mental health may also affect students' usage of support services (Auerbach et al., 2016; Edwards et al., 2021). Students may be unaware of the mental health and well-being services available to help them cope with the transition process. Moreover, higher education institutions may not be sufficiently

equipped with mental health resources to support the students, indicating a need for increased investment in these resources (Auerbach et al., 2018).

2.4.4. Experiencing stress

Transitioning to higher education can be a stressful experience for many first-year students (Denovan & Macaskill, 2017; Maymon & Hall, 2021). According to Lazarus and Folkman, (1984) transactional model of stress, stress occurs when one perceives that one's resources are insufficient to meet a stressor's demands. A stressor refers to those environmental demands that induce stress. An individual's coping strategies refers to how one appraises the situation and uses resources in response to a stressor (Lazarus & Folkman, 1984). For instance, a student may consider a situation a significant stressor (e.g. an exam). In contrast, another student may not experience the same situation as a stressor or may employ different coping strategies. Moreover, experiencing some amount of stress, also known as eustress, has been considered positive and motivating in an educational setting (Gibbons, 2012).

Ineffective coping strategies such as drug and substance use (Single et al., 2019), coupled with high levels of stress, have been linked to depressive symptoms in first-year students (Brandy et al., 2015; Dyson & Renk, 2006). Brose et al. (2017) found that daily experiences of stressors in a sample of first-year students were linked to higher future depressive symptoms. In a longitudinal study on first-year Latinx students in the U.S., Gordon et al. (2020) found a positive correlation between perceived stress and poor sleep patterns and discrimination.

2.4.4.1. Financial stressors. Experiencing financial difficulties is associated with students experiencing higher levels of stress (Adams et al., 2016; Bojuwoye, 2002). Many students have inadequate funds to pay for higher education, rely on student loans, or take up employment to help them pay for their education (Bomer et al., 2021). Though not explicitly

targeting first-year students, Adams et al. (2016) found that high perceived stress levels played a role in the negative influence of financial strain on academic and social integration and psychological symptoms. Likewise, in a sample of undergraduate students, Moore et al. (2021) found that college students experiencing financial stress faced difficulties with their academic studies and in building peer-to-peer relationships.

In a sample of university students in Bangladesh, Hossain et al.'s (2022) study found that students who borrowed loans to pay their tuition fees reported more financial stress than those who did not borrow loans. Financial stress also affected their participation in social and academic activities. This coincides with findings from Heckman et al. (2014) study, where insufficient money to participate in activities was a primary financial stressor among students. In their longitudinal study of British undergraduate students, Richardson et al. (2017b) found that there seems to be a bi-directional relationship between poorer mental health issues and financial difficulties. In addition, increased stress over debt correlated with higher depression and anxiety levels.

2.4.4.2. Academic-related stress. However, research suggests that experiencing stress affect first-year students in various ways. For instance, Wintre et al. (2011) found that academic achievement is linked to perceived stress among Canadian students. Specifically, first-year students with decreased grade point averages (GPAs) during their first semester, compared to their high school GPA, experienced higher perceived stress. Similarly, Amirkhan and Kofman (2018), found that experiencing stress overload was linked to lower GPA in the first and second semesters among a group of American students. The authors defined stress overload (p. 297) as "the destructive form of stress identified by stress theories" and noted that it could predict student attrition.

Stress is linked to not only academic achievement but also academic expectations. In a qualitative study, Wrench et al. (2013), found that Australian students reported feeling stressed when academic demands differed from their expectations.

First year students may therefore face several stressors including academic-related or financial stressors that may impinge on their academic and social integration in the higher education environment. The students perceptions of these stressors as well as their coping strategies can also have negative implications on their mental health and well-being.

In sub-Saharan Africa, most studies on the transitional challenges that first-year students experience are similar to global concerns (Chidzonga, 2014; Edjah et al., 2019; Megbowon et al., 2023; Wangeri et al., 2012). For example, a study conducted in Kenyan public universities reported the following transitional challenges: inadequate access to support services, struggles with adjusting to academic programs, unhealthy eating habits, disharmony with roommates, and the lack of autonomy (Wangeri et al., 2012). Other challenges include financial challenges (Kamunyu et al., 2016) and stress-related behaviours such as alcohol and drug abuse (Ndegwa et al., 2017). In addition, symptoms of depression seem to be present among many university students but being more common among first-year students (Othieno et al., 2014).

Globally, the transition to higher education is often described in literature as a challenge or hurdle that needs to be tackled or overcome (Lowe & Cook, 2003). Winstone and Hulme (2019) argued that the discourse on student transition tends to reinforce a limiting view of students where they are seen as struggling and with deficits and weaknesses to overcome. The authors argue that rather than viewing transition as an essential milestone, transition is often regarded as troublesome. Though the transition from secondary school to higher education can be challenging, this experience does not pertain to all students as some experience flourishing as they transition (Volstad et al., 2020).

Moreover, Winstone and Hulme (2019, p. 14) highlighted that student diversity is often ignored as some students experience higher education like a 'duck to water' where this context provides exciting opportunities to try to engage in new activities and create new relationships. Due to different experiences, upbringing and varying expectations, the transition process experiences are heterogeneous. Hence, each individual's transition experience is unique (Winstone & Hulme, 2019). Nonetheless, previous research has recommended ways in which first-year students who may be struggling in the transition process can be supported by the higher education institutes. The following section draws attention to some of these ways.

2.5. Supporting First-Year Students

One way that many higher education institutes tend to support first-year students is through the welcome and induction/ orientation period. During this period, the students engage in diverse activities including information sessions and social activities that help introduce students to life at the institute. The information sessions tend to highlight available support services including resources to improve time management and study skills. The period provides guidance to the new students and helps prepare them for the coming year (Onikoyi & Nnamoko, 2024). Though first-year students are not expected to acquire all the skills they need for successful academic and social integration, the induction period serves as a useful starting point for integration and alleviating students' concerns (Devis-Rozental & Clarke, 2021).

As transition is a continuous process, it is essential to take heed of students' expectations of the transition process early in the induction process (Gregersen et al., 2021; Winstone & Bretton, 2013). Especially as first-year students may experience a mismatch between their expectations of higher education and the reality of being in that context, which may influence their adjustment, engagement and satisfaction levels (Harris-Reeves et al.,

2022; Winstone & Bretton, 2013). Thus, transition initiatives should explore student expectations and support them by also providing a more realistic representation of higher education life (Mearman & Payne, 2023; Moosa & Langsford, 2021; Onikoyi & Nnamoko, 2024).

Additionally, previous research suggests involving peer mentors in supporting first-year students' transition (Pennington et al., 2018). Gregersen et al. (2021) highlighted the need to involve senior students in this process as they have experiential knowledge of the systems and norms of the higher education context or institution. Involving senior students was also echoed by Winstone and Hulme (2019), who emphasised the need to acknowledge multiple students' voices in the different academic stages. One way could be by engaging senior students to advise the next cohort based on their knowledge and experience of the transition process. Moreover, research indicates that various sources of support, such as faculty or peer support, help develop a first-year student's sense of belonging, which is vital to the successful transition and retention (Brooman & Darwent, 2014; Maymon & Hall, 2021; Strayhorn, 2018; Tett et al., 2017; Van Der Zanden et al., 2018). Experiencing social support from friends and family has also been found to positively affect students' emotional and social well-being (Alsubaie et al., 2019).

Another way to support first-year students could be by encouraging them to reflect on previous transition experiences to help them navigate a new transition. For instance, in Winstone and Hulme's (2019) study, students were asked to reflect on their last significant transition within secondary school (from GCSE to A Level) and compare that to their experience of transitioning to university. The authors found that reflecting on a prior transition experience allowed the students to recall strategies that had helped them before (such as using time management skills) that were applicable in their new environment. Moreover, the students recognised that though adapting to a new context may be challenging,

their success in their previous transition experience was testimony to the fact that they could, with time, adjust to their new environment.

Various kinds of student support services, such as counselling support, academic or financial guidance, are offered within higher education to assist students though each institute may vary in the structure of these services (Devis-Rozental & Barron, 2020). However, not all students tend to be aware of available support services (Tett et al., 2017). Moreover, some students may be reluctant to seek out services such as health or counselling services due to the stigma surrounding seeking out such support services (Adams et al., 2016). Support services could offer accessible interventions to help deal with this obstacle (Sheldon et al., 2021).

It is important to note there isn't consensus on the most effective interventions to assist first-year students. Donaldson et al. (2023) systematically reviewed school transition interventions used to improve mental health and well-being in children and young people. The review included interventions for the transition to higher education, from promoting safe partying behaviours (e.g., Quinn et al., 2019) to peer-led social support programmes to reduce loneliness (e.g., Mattanah et al., 2010). These interventions lasted at most nine weeks, and there was no clear relationship between the timing of intervention and the effects on mental health outcomes. However, three out of four interventions had positive effect directions for emotional outcomes, and two indicated positive effects for social outcomes (Donaldson et al., 2023). Overall, the authors of this review noted that further research would be required to determine the most effective intervention strategies for those transitioning to higher education.

Experiencing stress is a significant concern affecting students in the transition phase. Adams et al. (2016) highlighted the need for higher education contexts to adopt a preventative approach that would curb the rise of perceived stress among first-year students.

The authors suggested that institutes could offer accessible or affordable groups specifically for first-year students or to all students. An alternative approach recommended in previous research is embedding mental health and well-being activities within the first-year curriculum (Edwards et al., 2021). Prior research has also emphasised the need for student support services (e.g., counselling centres) to screen those who may be at a high risk of experiencing high perceived stress levels (Adams et al., 2016) or at risk for poor mental health (Sheldon et al., 2021).

To help first-year students cope with stress, Denovan and Macaskill, (2017) recommended using stress management and psycho-educational interventions to help build strengths. The authors explored psychological strengths, such as academic self-efficacy and optimism, that facilitate adjustment among first-year U.K. university students. The findings' suggested optimism was a critical psychological strength linked to subjective well-being and helped students cope with stress. Another finding was that academic self-efficacy, which is the belief in one's ability to achieve academic goals successfully, played a crucial role in guarding against the impact of stress on well-being but not necessarily in reducing stress (Denovan & Macaskill, 2017).

However, though in Denovan and Macaskill's (2017) study, stress levels remained stable over time, in Morton et al. (2014) study on a sample of Australian first-year students higher self-efficacy was associated with lower stress levels. Developing self-efficacy has also been linked to higher self-directed learning in first-year students (Macaskill & Denovan, 2013), academic achievement (Krumrei-Mancuso et al., 2013), and student satisfaction (Pennington et al., 2018). Therefore, interventions aiming to increase academic self-efficacy may benefit first-year students in several ways.

In Kenya, where this research study is situated, most higher education institutes offer some level of support such as financial assistance, healthcare and academic support, and

counselling services (Michubu et al., 2017; Njui, 2018). However, there are still gaps in the quality and accessibility of such services and a dearth of evidence on their overall effect on student welfare within the higher education sectors (Owuor, 2012). In Kilifi County in coastal Kenya, the vulnerability of university students' well-being may be further compromised by inadequate mental health care facilities and under-resourced health care (Bitta et al., 2017). Therefore, it is critical to explore accessible interventions that would help address the students' needs during transition to higher education.

2.6. Conclusion

The transition of first-year students to higher education has been conceptualised in multiple ways. As it is often regarded as a critical period for these students, research has explored the impact that this period has on the students including their engagement, achievement and belonging. First-year students may face numerous challenges and thus diverse ways to support their transition are implemented in higher education institutes. Research from the field of positive psychology could yield valuable insights in supporting first-year students' transition. The following chapter introduces positive psychology as the theoretical framework for this study.

Chapter 3: Theoretical Framework: Positive Psychology

3.1. Introduction

This chapter will briefly introduce positive psychology as the study's theoretical framework. Therefore, it will focus on the emergence of positive psychology as a scientific field of research and its development in what is often described as different waves. The chapter will also highlight the application of positive psychology when dealing with challenges. The study takes place in the sub-Saharan African region, specifically Kenya, and therefore, the chapter will also explore the growth of positive psychology in this context.

3.2. Positive Psychology as a Theoretical Framework

3.2.1. Defining Positive Psychology

Positive psychology may be regarded as the scientific study of what makes life worth living (Peterson, 2008). The field examines what contributes to the optimal functioning of individuals, groups and communities (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). Positive psychology considers the conditions and processes that lead to positive outcomes and strives to highlight the positive features of human experiences and functioning. The field is also concerned with combining the above with knowledge of the negative parts of human experience and functioning. It aims to address the imbalance of research on pathology and deficits (Linley et al., 2006). The following section highlights areas of interest in the field of positive psychology.

3.2.2. Foci of Positive Psychology

Positive psychology research focuses on three different levels: (1) the individual level, (2) the subjective level, and (3) the community or group level (Kim et al., 2012). Studies on the individual level try to explain how to become a 'good person'. Therefore, areas of interest include human virtues and character strengths. Examples of such include forgiveness,

wisdom, perseverance, and originality. Peterson and Seligman (2006) set to classify strengths through a rigorous review of texts from various cultures. The reasoning behind this endeavour was that much effort had gone into organising mental illnesses, such as in the Diagnostic Statistical Manual of Mental Disorders (DSM). However, there needed to be a consensus on universal strengths (Kim et al., 2012). As a result, Peterson and Seligman (2006) settled on six distinct categories of virtues and 24-character strengths within them. These virtues include humanity, wisdom, transcendence, temperance, and justice. Studies have examined character strengths across contexts, cultures (e.g., McGrath, 2014) and populations (Quinlan et al., 2012).

On the subjective level, studies focus on feeling good and, thus, on positive experiences and emotions. Positive experiences in the past can be expressed through satisfaction, well-being, and contentment. In the present, positive experiences can be reflected through terms such as flow (Nakamura & Csikszentmihalyi, 2014), happiness, and flourishing (Seligman, 2011). Lastly, hope and optimism are associated with experiencing the future positively (Dursun, 2021). Several studies have explored the role of positive emotions on longevity (Danner et al., 2001; Pressman & Cohen, 2012), resilience (Magalinggam & Ramlee, 2021) and life satisfaction (Kuppens et al., 2008). On the community or group level, studies examine how to develop communities and citizenship, thus looking beyond the individual self. Thus, areas of interest include altruism, social responsibilities, and work ethics (Boniwell, 2012). Though the modern-day positive psychology field has existed for the last two decades, it echoes concepts of interest to many others long ago. In essence, the underlying principles of positive psychology are rooted in Eastern and Western philosophical ideologies (Peterson, 2006). Ancient Greek philosophers such as Plato and Aristotle explored virtues and what makes a good life (Boniwell, 2012; Lopez et al., 2018). Practices such as

mindfulness and meditation, commonly investigated in positive psychology research, were also promoted in Eastern traditions such as Buddhism and Hinduism (Lopez et al., 2018).

Furthermore, several notable psychologists in the 20th century focused on areas of similar interest to those in the field of positive psychology. For instance, decades before Seligman's presidential address, William James, in 1906, also urged the need to explore optimal human potential in his presidential address to the American Psychological Association (Rathunde, 2001). Positive psychology is also underpinned by humanistic psychology and existentialism (Chang et al., 2022a). Jahoda's (1958) interest in promoting positive mental health and Rogers' (1963) ideas of a fully functioning person are examples that relate to the interests of positive psychology and showcase that the field was not an entirely new science. Abraham Maslow, also esteemed as one of the founders of Humanistic psychology, emphasised the concept of self-actualisation as the tendency for humans to move towards their full potential (D'Souza & Gurin, 2016). Moreover, the term 'positive psychology' was first noted in Maslow's, (1954) book *Motivation and Personality*, where Maslow argued that psychology's focus had been restrictive in the sense that it failed to broaden its focus to exploring human potential (Froh, 2004; Seligman & Csikszentmihalyi, 2000).

Despite these similarities with other fields that preceded it, positive psychology was carving itself out as a new field of study with key focus areas. The development of positive psychology in the last few decades is described in the section below.

3.3. Waves of Positive Psychology

Over the last two decades, research in the field of positive psychology has grown exponentially. The development of positive psychology has been described in terms of waves (or phases), with each wave having a particular drive that influenced the direction that research and practice took (Lomas et al., 2020; Wissing, 2022; Wissing et al., 2022).

3.3.1 First wave of positive psychology

The first wave began from the inception of positive psychology in the late 90s and lasted for about a decade (from 1998 to approximately 2010). In 1998, Martin Seligman, the then-president of the American Psychological Association (APA), highlighted the imbalance of the psychological research that had been taking place for some decades.

Before World War Two (WWII), psychology had three focus areas: to cure mental illnesses, nurture human strengths, and nurture talents (Seligman & Csikszentmihalyi, 2000). However, post WWII, and with the desire to aid veterans dealing with post-traumatic stress disorders, psychological research began to steer more effort towards the first goal of understanding, diagnosing, and treating mental disorders. Funding for research on pathology also bolstered efforts towards this goal (Wertheimer & Puente, 2020). The field of psychology was operating within a disease model framework and made significant strides in the treatment of several mental illnesses, such as depression and anxiety (Gillham & Seligman, 1999; Seligman et al., 2004).

However, the focus on pathology meant that psychology was becoming more of a 'victimology' (Boniwell, 2012) concerned with fixing what was wrong. As Gable and Haidt (2005, p. 103) illustrated, research centred on psychopathology had led to an understanding of how "people move from a negative eight to a zero but not as good at understanding how people rise from zero to a positive eight". Consequentially, this led to sidelining psychological research focused on the other two goals (nurturing strengths and talents). The preponderance of ameliorating symptoms of psychological distress failed to recognise that humans also possess strengths that could protect against mental disorders and promote mental health (Peterson & Seligman, 2006). Therefore, in his presidential address, Seligman argued for the need to refocus efforts towards exploring human strengths and talents, emphasising

that focusing on mental illness did not equate to flourishing (Seligman & Csikszentmihalyi, 2000; Seligman et al., 2004).

Positive psychology was then established as a scientific field in 2000 (Seligman & Csikszentmihalyi, 2000). The field began to proliferate through like-minded scientists' efforts to promote a psychological research shift (Rusk & Waters, 2013). During this first wave of positive psychology, the primary aim of researchers was to investigate the positive aspects of human psychological functioning. Some areas explored included positive emotions, optimism, meaning, and character strengths. As highlighted by Wissing (2022), there was both integration of theories that preceded it, such as Csikszentmihalyi's (2014) concept of flow, and the development of new theories, such as Fredrickson's 'broaden and build' theory of positive emotions (2001).

Though the field of positive psychology was expanding and exploring various research areas (Rusk & Waters, 2013), a criticism of the first wave was that it overlooked cultural contexts when generalising from their research findings. As a result, findings were assumed to be valid for both individualist and non-individualist contexts. There was also an implicit epistemological belief that scientific knowledge was mainly achieved through experimental designs within quantitative methodologies (Wissing et al., 2022). This may have been due to a significant emphasis on establishing the field of positive psychology as a scientific field (Seligman & Csikszentmihalyi, 2000), creating a high regard for quantitative methodologies to establish causality. A review by Donaldson et al. (2014) found that 78% of the research adopted a quantitative design during this period.

Another critique of positive psychology during this first wave was that overemphasising the value and pursuit of positive qualities led to negative phenomena being considered undesirable and thus shunned. Though some researchers argued against being overly one-sided, for instance, the dangers of being highly optimistic (Forgeard & Seligman,

2012), there was increasing emphasis on the positive. Positive and negative states were regarded as operating independently as opposed to the appreciation of both states. As Lomas and Ivtzan (2015, p. 1754) explained, the field "often appeared to embrace a polarising rhetoric". However, critics drew attention to the consequences of such an approach (Lomas et al., 2020). For instance, McNulty and Fincham (2012) and Sinclair et al. (2020) argued that positive qualities, such as forgiveness, could sometimes have adverse outcomes, such as perhaps increasing one's vulnerability in a dysfunctional relationship. In contrast, sometimes, qualities that may be considered negative, such as sadness, could lead to positive outcomes, such as protection (Lomas, 2018).

3.3.2 Second wave positive psychology

In response to the above critiques, the second wave of positive psychology emerged (Held, 2004; Lomas & Ivtzan, 2015), though it was initially termed PP 2.0 (Wong, 2011). Research on concepts related to the first wave, such as well-being and flourishing, was ongoing. However, during this second wave, there was also greater emphasis on understanding these concepts within different cultural contexts (e.g., Uchida & Ogihara, 2012). There was also increasing awareness of the need to embrace qualitative and mixed methods approaches (Wissing, 2022).

This phase was also notably marked by the consideration of life's positive and negative aspects and acknowledging the impact of stressors and challenges on well-being (Ivtzan et al., 2015; Lomas & Ivtzan, 2015; Wissing et al., 2022). The state of 'Flow', as developed by Csikszentmihalyi (2014), is a crucial interest area within positive psychology that highlights the balance between challenges and skills (Horikoshi, 2023). Likewise, challenges are reflected by several character strengths, such as 'persistence' and 'hope', which help deal with these challenges (Peterson & Seligman, 2006). Ivtzan et al. (2015) also highlighted how challenging experiences (the 'darker side' of life) could lead to growth.

During the second wave, resilience was also promoted to deal with challenges. For instance, Theron and Theron (2014) explored resilience and meaning making in adversity.

Psychological resilience is the ability to bounce back from challenging situations or setbacks and maintain a sense of well-being (Lu et al., 2022). Research on resilience has also been increasing beyond the second wave. Having higher resilience levels has been related to positive coping styles, such as seeking social support (Yan et al., 2022), problem-focused coping (Wu et al., 2020) and positive reframing, and is linked with better psychological well-being (Sagone & De Caroli, 2014)

In addition, positive psychology advocates that one can promote resilience in the face of adversity by cultivating positive emotions (Cohn et al., 2009; Gloria & Steinhardt, 2014) and social support (Kılınç & Çelik, 2020; Qiu et al., 2021). Individuals can broaden their cognitive and behavioural responses by cultivating positive emotions such as gratitude and love, resulting in increased resilience when faced with challenging situations (Arslan et al., 2020; Tugade & Fredrickson, 2004). Positive relationships provide a sense of belonging and validation that may help individuals cope with challenges (Nicholls & Perry, 2016).

Positive psychology also promotes the development of positive psychological traits such as conscientiousness and optimism to deal with challenging situations. For instance, Othman et al. (2018) found that traits such as hope, and optimism can predict the ability to cope with complex changes in the future of work and adapt to career changes. Pathak and Lata (2019) found in a study of young adults in higher education settings that higher levels of optimism were related to higher levels of resilience and lower levels of perceived stress. In the second wave, several authors also noted the importance of considering both situational and cultural contexts when examining different psychological processes. For instance, McNulty and Fincham (2012) demonstrated that some psychological traits and processes commonly considered positive (e.g., forgiveness and kindness) may benefit some contexts

but not others. Wissing et al. (2022) also highlighted that some words can have positive and negative undertones in various contexts. Thus, the second wave adopted a more nuanced perspective on the dialectical essence or interdependence of the positive and negative (Lomas & Ivztan, 2015).

3.3.3 Third wave of positive psychology

Around 2015, there were notable shifts in the field of positive psychology that led to what Wissing (2018) termed the third wave of positive psychology. Though trends from the first two waves carried on, one key characteristic of this phase was the growth in well-being research on a multi-, inter-, and transdisciplinary level. This change to post-disciplinarity meant that the field of positive psychology was increasingly interconnected and recognised the multimodal nature of well-being (Wissing et al., 2022). Lomas et al. (2020, p. 4) described this phase as "moving towards greater complexity", where the field broadened to looking further into the systems, organisations, and cultures within which individuals are immersed. The authors further explained that this broadening could be considered regarding methodologies and scope.

Regarding methodologies, Hefferon et al. (2017) noted that increasing research embraced qualitative and mixed-method approaches, which provided more profound insight into flourishing and highlighted participants' perceptions concerning their well-being. The application of computational techniques in research has also allowed a vast amount of data to be generated (and analysed) from multiple sources, such as search patterns and social media (Yaden et al., 2018). However, Lomas et al. (2020) argued that using computational techniques supported and did not replace other methodological approaches. There was also growth in the use of implicit approaches to research, where non-conscious processes can be captured, as opposed to heavily relying on self-report measures, which increased the

understanding of non-conscious processes that affect cognition and behaviour (Lomas et al., 2020).

The broadening of the field of positive psychology also referred to increasing the scope of focus. There was increasing understanding that individuals operate within larger social (e.g., family and workplaces) and ecological contexts, including spiritual and political environments (Wissing, 2022). The field was also becoming more global and multicultural. A predominance of Western perspectives (Henrich et al., 2010) initially influenced the empirical focus. Thus, the risk of assuming that constructs in one context meant the same in another. However, within the third wave, there was more input from non-Western contexts regarding theories and constructs emerging in these settings and increasing sensitivity to how diverse contexts can shape the experience of well-being (Kim et al., 2018; Lomas et al., 2020). Another shift was the heightened awareness that the field of positive psychology needed clear ethical guidelines that provided structure for practice and enhanced knowledge and skills. This led to the development of frameworks and guidelines by both practitioners and scholars, and the guidelines help provide a foundation as the field continues to advance (Jarden et al., 2021; Vella-Brodrick, 2014)

Lomas et al. (2020) and Wissing (2022) speculated whether what lay ahead of the third wave would still be considered a discipline on its own or whether the discipline would have developed further and merged with other disciplines looking into well-being research. Furthermore, as positive psychology continues to evolve, it has had to be cognizant of society's current global challenges and their impact on well-being. The coronavirus disease 2019 (COVID-19) is an example of a catastrophe that has had a widespread, overwhelming and damaging impact on the well-being of those with direct and indirect exposure to the virus (Waters et al., 2021), for instance, through the heightened sense of loneliness that followed social distancing measures (Galea et al., 2020) and increased levels of anxiety and depressive

symptoms (Ettman et al., 2020; Rajkumar, 2020). Wissing (2022) added that combining efforts across disciplines would be essential to investigate the well-being of humans and non-humans with the increasing global challenges, from climate change to pandemics and wars.

The three waves described in the above sections indicate that the field of positive psychology developed quite rapidly over the last two decades. As Lomas et al. (2020) emphasised, describing the progression in terms of waves meant that each new phase was not wholly distinct from the previous phase but was somewhat influenced by and drew from the phases before it. From considering different cultural concepts to increasing its scope of focus, the field of positive psychology continues to expand in well-being research across the globe. The following section highlights the spread of positive psychology.

3.4. The Global Reach of Positive Psychology

The field of positive psychology, in terms of research, practice, and teaching, is developing at different speeds worldwide. Chang et al. (2022a) highlighted the pervasive advancement of the field globally by a diverse group of researchers in the field. Downey et al. (2022) reported that the promotion of positive psychology across regions has led to significant gains on a practical level, such as through better health and economic growth. Additionally, the authors noted that, on a symbolic level, the field of positive psychology has contributed to an increased awareness that, despite the cycles of change that happen on a larger scale, the pursuit of flourishing on an individual and societal level does matter.

Therefore, the field of positive psychology has made noteworthy contributions across various regions of the world (Chang et al., 2022b). However, despite the observable growth of studies from across the world, the majority of the studies mainly originate from Western countries (Kim et al., 2018) and focus on WEIRD (Western, Educated, Industrialised, Rich and Democratic) populations (Hendriks et al., 2019; Henrich et al., 2010). The following

section focuses on the field of positive psychology in the context of sub-Saharan Africa, which is the region where this study is situated.

3.4.1. Positive Psychology in sub-Saharan Africa

The term sub-Saharan Africa is used in this study to refer to the countries situated in Western, Eastern, Central and Southern Africa. These countries share a collectivistic cultural orientation where the community's needs supersede the individual's (Nwoye, 2017).

However, there are also many diverse cultures, ethnic groups, religious beliefs, and practices (Wissing et al., 2022). Countries in sub-Saharan Africa also share a history marked by strife and turmoil. Other than Ethiopia, the countries within this region struggled for independent rule from Western colonial powers at different times (Adewale & Schepers, 2023). Post-independence, most of these countries have also grappled with issues such as poverty, high levels of corruption, and civic wars that have impacted their economic growth (Mlambo et al., 2019). It is within this context that positive psychology has developed in sub-Saharan Africa.

However, only a few countries in sub-Saharan Africa have explored positive psychology as an area of research. South Africa is considered the country within sub-Saharan Africa that has made the most notable progress in developing the field (Wilson Fadiji & Wissing, 2022; Wilson Fadiji et al., 2024). In South Africa, before the establishment of the field of positive psychology, there was interest and research in the promotion of well-being, which may have tilled the ground for the field to take root. For instance, in the early 90s in South Africa, before the establishment of positive psychology in the USA, the construct "psychofortology" was introduced in South Africa with a particular focus on studying human capacities and psychological well-being (Strümpfer & Wissing, 1998; Wissing & van Eeden, 2002).

In addition, in 2006, North-West University in South Africa held the first conference on Positive Psychology within sub-Saharan Africa. Psychologists from various disciplines in psychology, in collaboration with other health professionals, organised the first research groups on positive psychology at the same university (Wilson Fadiji & Wissing, 2022). A decade after the launch of the field of positive psychology, Eloff et al. (2008) explored the status of positive psychology in several African countries (Algeria, Malawi, Uganda, Lesotho, Nigeria and Zimbabwe). Their findings indicated that the field was taking root in South Africa, but this did not exactly translate to the rest of sub-Saharan Africa. Moreover, participants reported that although positive psychology was not explicitly taught and there was no clear theoretical framework, the principles of the field were being practised.

3.5.1.2 Alignment of Positive Psychology Principles with African perspectives.

Eloff et al. (2008) also noted a connection between positive psychology and indigenous knowledge systems and that some African concepts align with principles in positive psychology. For instance, the practice of positive psychology in sub-Saharan Africa has been linked to "Ubuntu", an African ethical philosophical concept that considers one's humanity as intertwined with others' humanity and the environment. The Zulu phrase "Umuntu, ngumuntu, ngabantu" describes Ubuntu as "I am because we are" (Ewuoso & Hall, 2019, p. 96), reflecting the value of interconnectedness, which coincides with positive psychology's emphasis on positive relationships. The African worldview of interconnectedness relates to human interpersonal relationships and the relationship between the natural and supernatural worlds (Nyamnjoh, 2015). According to Wissing et al. (2022), the emerging third wave of positive psychology aligns with the African perspective on the value of interconnectedness.

Alongside the value of interconnectedness is the concept of harmony, where well-being is tied to the harmony of people, spiritual forces, and the environment (Schutte et al., 2022; Wissing et al., 2022). However, Wissing et al. (2022) add that the connection between

well-being and harmony still requires further research. Nonetheless, the authors noted that the field of positive psychology worldwide is starting to recognise the importance of spiritual and environmental factors and the need to further explore their role in well-being.

Another deeply ingrained value and practice within the African community that aligns with positive psychology principles is hospitality. Hospitality refers to extending generosity without expecting anything in return and reflects interdependence within the African community (Gathogo, 2013; Selvam et al., 2022). Though hospitality is also valued in other cultures and religious practices (Kirillova et al., 2014), within African society, it is mainly upheld as a moral value that is essential for the well-being of individuals and communities (Kiige et al., 2019; McMahan & Estes, 2010). Selvam et al. (2022) argued the need to explore further whether 'hospitality' should be included in the range of existing character strengths as it appears to qualify by meeting the criteria set out by Peterson and Seligman (2006).

In addition to aligning with various African perspectives, Van't Wout et al. (2020) noted that positive psychology principles also related to indigenous African practices where traditional healers focused on holistic well-being instead of only relieving negative symptoms. Additionally, the author noted that different health professionals in sub-Saharan Africa have applied positive psychology principles to help societies cope with the challenges they face. For example, in Uganda, through offering community-based rehabilitation to promote the well-being of persons with disabilities, HIV/AIDS counselling or offering life skills training to street children to help them cope with the adversities they face (Chireshe et al., 2008).

Despite the alignment of positive psychology with different African perspectives, the field has not made as much stride when compared to the growth in Western cultures. Wilson-Fadji and Wissing (2022) offered a few reflections on the tardy arrival of positive psychology in sub-Saharan Africa. The authors highlighted some of the positive

psychologists in sub-Saharan Africa who have made significant contributions in their countries and/or developed assessment tools, theories and interventions relating to positive psychology. They noted that fewer investments in positive psychology research could be due to challenges, such as wars, diseases, and economic instability, facing the region, resulting in more preoccupation within sub-Saharan Africa with reducing distress instead of promoting well-being (Appiah, 2022a). Likewise, Eloff et al. (2008, p. 196) speculated that in the face of these challenges, the field of positive psychology may be regarded as "too jocular" by some and not apt to help address these issues.

In addition, positive psychology in sub-Saharan Africa has been criticised for failing to consider distinct contextual differences while formulating theories on well-being (Wilson Fadiji & Wissing, 2022; Wilson Fadiji et al., 2024). An Africentric perspective must be considered by giving pre-eminence to how different constructs manifest in the African context, where values such as spirituality and collectivism tend to predominate (Wilson et al., 2021).

Considering this, researchers (e.g., Appiah, 2022b; Wilson et al., 2021) illuminated the need for qualitative bottom-up approaches as well as mixed methods approaches (Clark & Clark, 2022) that help shed light on how various constructs manifest in different contexts. For instance, Wilson et al. (2018) conducted a qualitative study to explore how the constructs of hope, meaning and goals are understood in the African contexts of South Africa and Ghana. The authors found that the above constructs are interconnected and influenced by the sociopolitical and cultural contexts of the two countries. According to Wilson-Fadiji and Wissing (2022), bottom-up approaches would also help uncover cultural values in different contexts.

Whilst being cognizant of the influence of Western perspectives when carrying out positive psychology research in sub-Saharan Africa, there is still a need to bear in mind the

value that different perspectives may offer. Nwoye (2017) proposed the Madibani tradition, where African and Western viewpoints must complement each other to advance scientific research as they are incomplete. Phillips and Wong (2017) also highlighted that nowadays, collectivist orientations are more common in rural areas, whereas individualist and collectivist orientations can be found in urban areas. Therefore, it is essential to note that not all sub-Saharan contexts are the same in upholding different values and practices.

As Harzer and Weber (2022) noted, establishing various positive psychology societies and associations within and across countries in Western Europe has boosted networking and dialogue among researchers in this region. The growth in these societies and organisations across Africa may also fuel communication amongst positive psychology researchers and practitioners within and beyond Africa. Over a decade after the first conference of positive psychology in South Africa in 2006, the first *Africa Positive Psychology Conference* was held in 2018, attracting delegates from the continent and across the globe. During this conference, two new bodies, The *African Network for Positive Psychology* (ANPP) and the *South African Positive Psychology Association* (SAPPA), were launched (News@NWU, 2018; Wilson Fadji & Wissing, 2022). Regarding specific educational training in positive psychology, only some academic programmes or courses on the field exist in sub-Saharan Africa. For instance, the North-West University offers an internationally credited Master's programme in positive psychology (Wilson Fadji & Wissing, 2022), and the Tangaza University College in Kenya also offers positive psychology as a core course in both their Bachelor and Master's programme in Counselling Psychology (Positive Psychology Association of Kenya, n.d).

Although the field of positive psychology has grown faster in South Africa than other sub-Saharan countries, it is steadily increasing in Kenya (Wilson Fadji et al. 2024). This is indicated by the establishment of the Positive Psychology Association of Kenya (PPAK) in the year 2020. Since its launch, it has significantly contributed to positive psychology's

growth in Kenya through trainings (such as training young adults in character strengths), workshops and conferences (<https://www.positivepsychologykenya.org/>). One of the primary founders of PPAK, Professor Sahaya Selvam, has conducted extensive research in the field of positive psychology in Kenya. His work includes studies on hope (Selvam & Poulsom, 2012) and hospitality as a character strength (Selvam et al., 2022).

Overall, the growth of positive psychology in sub-Saharan Africa appears promising. Wilson Fadji and Wissing (2022) pointed out that positive psychology's 'non-threatening character' (p.342) is an added benefit as it promotes well-being through the recognition of what is working well but at the same time being cognizant of hardships and struggles that affect well-being. Also, due to the integration of African perspectives, such as connectedness and the appreciation of spirituality in daily living, there is fertile ground for further growth of the field of positive psychology in sub-Saharan regions.

3.5. Conclusion

Positive Psychology is the scientific study of what makes life worth living (Peterson, 2008) and the optimal functioning of individuals, groups and communities (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). The growth of positive psychology has been steady and has attracted interest from researchers and practitioners from across the globe. Through the different waves that highlight its development, the field of positive psychology acknowledges the criticisms it has faced and the challenges affecting individuals and society. In addition, positive psychology continues to embrace the promotion of a life well-lived and is becoming more cognizant of how different contexts and cultures would interpret various constructs within the field. Though the growth of positive psychology was lagging in sub-Saharan Africa compared to Western countries, it is taking root, and multiple researchers have embarked on exploring how the field could promote well-being across different

contexts. The following chapter explores the construct of well-being and the application of positive psychological interventions to promote well-being.

Chapter 4: Well-being and Positive Psychological Interventions

4.1 Introduction

This chapter will aim to provide an overview of the construct of well-being and the use of positive psychological interventions in promoting well-being. The first part covers how well-being is construed in literature and the different theoretical perspectives on well-being. This chapter also gives an overview of the PERMA model of well-being, which is the framework used in the design of this research study's intervention programme. The chapter will also draw attention to well-being studies in sub-Saharan Africa, and particularly Kenya, where the study takes place.

The second part of this chapter will focus on the various definitions and types of positive psychological interventions. The researcher will also discuss the use of positive psychological interventions in Africa and with university students.

4.2. Well-being

4.2.1. Approaches to Well-being

Over the last few decades, there has been increasing growth in the study of well-being, and it has been an area that has caught the interest of many, including policymakers and the general public (Ng & Fisher, 2013). Moreover, the bio-psycho-socio-ecological nature of well-being may suggest increasing inter- or transdisciplinary well-being research in the future (Wissing, 2022). People tend to have an idea of what well-being is and why it is essential, yet the construct of well-being can be quite abstract, and thus it has proven challenging to arrive at an unequivocal understanding of it (Kern et al., 2022).

However, attempting to understand well-being is not a recent undertaking, as even the Ancient Greek philosophers deliberated on it (Ryff et al., 2021; Weiss, 2016). For example, in the 4th Century BCE, the Greek philosopher Aristippus described happiness as centering on

experiencing pleasure. On the contrary, the philosopher Aristotle, as detailed in his book *Nichomachean Ethics*, viewed happiness as not based on momentary pleasure but on pursuing a virtuous life and using one's potential (Boniwell, 2012; Ryff et al., 2021). Therefore, he viewed well-being as linked to wholesome acts and not just about how one feels.

Based on the above two viewpoints on happiness, two main approaches are often used to describe well-being: the hedonic approach and the eudaimonic approach, respectively (Huta & Ryan, 2010). The hedonic approach tends to be associated with the pursuit of sensual pleasures and the reduction of pain (Ryan & Deci, 2001). Therefore, this approach views a good life as centered on feeling satisfied and happy. On the other hand, the hedonic approach has received criticism for suggesting self-indulgence and momentary pleasures that do not lead to lasting changes. In contrast to the hedonic approach, the eudaimonic approach is associated with fulfilling one's potential and finding meaning and purpose (Ryff et al., 2021; Ryff, 2023). Therefore the eudaimonic approach views well-being as not necessarily being linked to an increase in the feeling of happiness but to fulfilling one's potential (Compton & Hoffman, 2019).

4.2.2. Theoretical perspectives on well-being

How well-being is viewed has implications for both theory and practical applications (Ng & Fisher, 2013). With this in mind, several well-being facets have been suggested. Though they can appear to be quite similar, they offer a “useful starting point” (Ng & Fisher, 2013, p.711) and according to Kern et al., (2019, 2022), help in simplifying what can be a complex construct.

4.2.2.1 Subjective well-being. To describe the hedonic approach, Diener coined the term ‘subjective well-being’ (SWB) (1984). This refers to evaluating one's life satisfaction (a cognitive aspect), positive affect and negative affect (Diener et al., 2018). SWB is based on

one's perspective of their own life.. Life satisfaction is considered a more ongoing component of well-being and refers to one's general satisfaction with life (Diener et al., 2018) or with specific domains such as one's health, work or relationship. Positive affect refers to pleasant and desirable feelings such as happiness, excitement, or calm, whereas negative affect relates to feelings such as fear or sadness (Diener et al., 2018; Kansky, 2017). These two components (positive affect and negative affect) are typically rated using different time points such as how one is feeling now or how one felt in the last two weeks.

4.2.2.2. Psychological well-being. On the other hand, 'Psychological well-being' relates to the eudaimonic approach (Deci & Ryan, 2008) and refers to how one develops their potential and engages in actions towards pursuing their goals. The rise in exploring this facet could be accrued to criticisms of SWB, as Goodman et al. (2020) posited, which stated that affective experiences and evaluations of life satisfaction were not sufficient to capture well-being. Ryff (1989) referred to psychological well-being as functioning positively in the following six areas. These include: viewing oneself appropriately including qualities and limitations whilst maintaining a positive attitude (self-acceptance); developing one's abilities (personal growth); viewing one's life as having meaning and having goals (purpose in life), being able to self-direct and not easily conform to societal pressures (autonomy), growing and maintaining good social connections (positive relations with others), and able to manage one's environment and utilize available opportunities to meet needs (environmental mastery). According to Ryff et al. (2021), various theoretical perspectives drawn from humanistic, developmental, and existential psychology that focus on psychological capacities, led to the growth of the above approach.

4.2.2.3. Social well-being. Keyes (1998) added the element of social well-being as an essential dimension of well-being and proposed the following as components of social well-being: being able to accept that human nature has both good and bad elements (social

acceptance), being able to offer something worthwhile to others (social contribution), considering circumstances and events as making sense (social coherence), ability to see the potential of one's society (social actualisation) and the ability to be a part of society (social integration). Keyes (2002) viewed well-being as consisting of psychological, social, and emotional (or hedonic) well-being, thus combining both hedonic and eudaimonic views of well-being. Taking all these aspects into account, Keyes (2002) described 'flourishing' as having a high level of psychological, social, and emotional well-being, while the term 'languishing' is used to describe those with lower levels of hedonic and eudaimonic well-being.

To promote well-being, it is essential to understand which aspects contribute to it (Coffey et al., 2016). Researchers have focused on different well-being aspects, with some leaning on exploring hedonic contents such as the experience of satisfaction or pleasure (Kahneman, 1999) and others on eudaimonic contents such as ethics and personal growth (Huta & Waterman, 2014). According to Anic and Tončić (2013), pursuing both hedonia and eudaimonia leads to higher degrees of well-being than pursuing either on their own. In agreement with Anic and Tončić (2013), Huta (2016, p. 5) termed it as a "more well-rounded well-being".

However, how exactly the hedonic and eudaimonic approaches overlap to contribute to well-being is an area constantly being explored (Huta, 2016). For instance, Goodman et al. (2020) proposed a hierarchical framework of well-being where lower-level components are distinguished from general well-being, an encompassing construct. The authors defined 'general well-being' as "perceived enjoyment and fulfillment with one's life as a whole" (p.3). Goodman et al. (2020) emphasized the importance of clarity on what was being measured, rather than focusing on promoting any specific measure or model as the ideal representation of well-being.

4.2.2.4. PERMA Model of Well-being. The PERMA is a multi-dimensional well-being model proposed by Seligman (2011) that has been utilised as a framework in intervention programmes that aim to enhance well-being (Hoare et al., 2017; Morgan & Simmons, 2021). The acronym PERMA refers to positive emotions (P), engagement (E), relationships (R), meaning (M), and accomplishment (A). These aspects are considered as central in promoting the flourishing of children and adults (Forgeard et al., 2011; Kern et al., 2022; Seligman, 2011) and combine both the hedonic (i.e., positive emotions) and eudaimonic aspects (i.e., meaning) of well-being. However, these proposed five pillars of well-being are not directly linked to the term "happiness" which is commonly associated with a cheerful feeling (Dodge et al., 2012).

Initially, Seligman (2002) proposed in his theory of authentic happiness that 'happiness' was made up of the following three facets: positive emotions, engagement, and meaning. This original model centered more on hedonic well-being. Seligman (2011) redefined his 'theory of happiness' as the well-being theory or the PERMA model of well-being and revised it to include 'relationships and 'accomplishment' as facets linked to well-being. This revised theory focuses more on the eudaimonic aspects (Kern et al., 2022). According to Seligman (2011), people pursue these different PERMA aspects as they are inherently rewarding. According to Seligman, flourishing is reflected by higher scores on measures of the PERMA facets (Hone et al., 2014). The following section describes the various aspects of the model.

4.2.2.4.1. Positive Emotions. The *positive emotions* aspect of the PERMA model refers to "the pleasant life" (Seligman, 2011, p. 11) and focuses on deriving enjoyment from one's activities. Fredrickson (2013), one of the key researchers on positive emotions, posited ten key positive emotions that one could experience: joy, gratitude, inspiration, pride, interest, amusement, serenity, awe, love, and hope. In Fredrickson's (2004, 2013) broaden-

and-build theory, positive emotions help broaden one's attention and way of thinking and building personal resources. Positive emotions have been linked to increased creativity and flexibility (Kok et al., 2008) and greater persistence in activities (Cheng & Wang, 2015). Personal resources gained include social resources, such as the strengthening and creating of new bonds (Gable, 2013; Sels et al., 2021), and physical resources, such as the improved impact on immunity and cardiovascular health (Boehm & Kubzansky, 2012). In addition, intellectual resources gained from pursuing positive emotions, such as problem-solving skills (Chang, 2017) and psychological resources, such as resilience, have also been linked to positive emotions (Tugade & Fredrickson, 2007). Fostering positive emotions would therefore be essential to broaden and build students' resources to manage difficulties that occur in their personal and academic lives (Brunzell et al., 2016; Chu, 2020).

However, as Friedman and Kern (2014) point out, it is essential to look at engaging in activities that promote well-being in the long term. This refers to activities that are not simply aiming for short-term bouts of happiness, such as that gained by eating sugary foods, that may have negative implications on one's well-being in the future. Moreover, the increasing focus of research on positive emotions does not discount the experience of negative emotions and does not disregard experiencing distress and suffering as a part of life (Kashdan & Biswas-Diener, 2014). Though negative emotions serve to highlight what is wrong and need attention (Kern et al., 2022), several studies have indicated that there are more benefits to experiencing more positive emotions than negative emotions (Lyubomirsky et al., 2005).

4.2.2.4.2. Engagement. The *engagement* element in the PERMA framework refers to the intensity of absorption or immersion in activities and taking a keen interest in the task at hand. These include recreational, school, or work-related activities (Kern et al., 2022). Kern et al. (2022) highlighted three levels of engagement that apply to pupils within schools: psychological or emotional engagement, such as having an interest in learning and, also a

sense of belonging; behavioural engagement as seen by attendance, preparation and participation in tasks; and cognitive engagement for instance when a student is entirely focused and paying attention in the classroom.

According to Kern et al. (2022), Seligman's (2002, 2011) notion of engagement seems to center more on psychological engagement than the other dimensions. It involves identifying one's character strengths (Peterson et al., 2005) which are positive traits that "reflect one's character and personality" (Lambert D'raven & Pasha-Zaidi, 2016, p. 908). Macaskill and Denovan (2013) found that awareness of character strengths was associated with autonomous learning, self-efficacy, and self-esteem in a sample of first-year university students. Character strengths have also been linked to achieving a state of flow (Csikszentmihalyi, 1990). Flow is a state where one is completely immersed in an activity that requires effort and yet is gratifying and could lead to a sense of time stopping (Csikszentmihalyi 1990; Lambert D'raven & Pasha-Zaidi, 2016; Seligman, 2011). Kern et al. (2022) suggested that rather than solely focusing on experiencing a state of flow, which can be challenging to attain consistently without distractions in school or work settings, there should be recognition of the other dimensions of engagement, such as behavioural and cognitive engagement.

4.2.2.4.3. Relationships. The *relationships* facet in the PERMA framework refers to being authentically connected to others (Seligman, 2011). It has been linked to a feeling of support, care, belonging, and community (Sandstrom & Dunn, 2014). There is increasing concern on the adverse impact of loneliness and social isolation on one's mental and physical health (Cacioppo & Cacioppo, 2018) which suggests the value of positive relationships. However, it is not the several diverse types of relationships one can have nor their quantity that seems to count in the experience of well-being but rather the quality of these relationships (Taylor, 2011). It also matters that there is a balance where one not only

receives but shows care and support to others. Thus, as positive relationships involve giving and receiving support, positive relationships are regarded as beneficial to one's own well-being and crucial to contributing to the well-being of others and societies (Roffey, 2013).

4.2.2.4.4. Meaning. The *meaning* aspect of the PERMA framework refers to experiencing a purposeful existence through one's activities. Seligman (2011, p. 17) described meaning as “belonging to and serving something bigger than the self” and thus involves using one's character strengths not only for one's improvement but also for things considered valuable and beneficial to others. Three different components of meaning have been suggested in the literature: coherence, which refers to how we make sense of our lives; significance which refers to whether we find our life as having value and being worth living and; purpose, which refers to the goals and aspirations we set for ourselves (Heintzelman & King, 2014; Martela & Steger, 2016). Engaging in meaningful activities has been found to have several benefits, such as improving life satisfaction, social closeness, and general well-being (Steger & Kashdan, 2013).

4.2.2.4.5. Accomplishment. The *accomplishment* aspect refers to achievement at the highest possible level and a sense of success in a particular domain (Seligman, 2011). It also refers to "making progress towards goals, feeling capable to do daily activities and having a sense of achievement" (Kern et al., 2015, p. 263). It involves using one's skills towards goals and pursuing this for its own sake regardless of whether or not it contributes to the other facets such as positive emotion, relationships or meaning (Seligman, 2011). Accomplishment can also be viewed objectively where others recognise one's success, for instance, by winning awards. However, Kern et al. (2022) point out that an overemphasis on objective accomplishment might place more weight on the outcome rather than the process of achievement in day-to-day tasks where one gains competence.

4.2.2.4.6. The PERMA Framework in Educational Settings. The PERMA framework's (Seligman, 2011) applicability in school settings has been attested through programmes such as the Maytiv school program (Shoshani et al., 2016) and the Geelong Grammar School Applied Model for Positive Education (Hoare et al. 2017). The GGS Model has served as a framework for implementing interventions within the school setting (Au & Kennedy, 2018; Hoare et al., 2017). Shoshani et al. (2016) found that the Maytiv school program positively affected the seventh-to-ninth grade students' subjective well-being across six schools in Israel. Shoshani et al. (2016) found a positive effect on the students' academic achievements, peer relations, cognitive and emotional engagement, and positive emotions. A significant decrease was noted in the control group's cognitive engagement and positive emotions compared to the intervention group (Shoshani et al., 2016). The study highlights the benefits of implementing school programmes based on the PERMA framework.

Nonetheless, despite the literature highlighting the benefits of school interventions based on the PERMA model (e.g., Hoare et al., 2017; Seligman, 2011; Shoshani et al., 2016; Au et al., 2018), there appear to be fewer programmes in comparison that have utilised the PERMA model within university settings (e.g., Lambert et al., 2019; Moog, 2021; Morgan & Simmons, 2021). In addition, though research has assessed and supported the PERMA model's validity (Coffey et al., 2016), there have been calls to conduct more research using the PERMA framework (Gander et al., 2016; Kovich et al., 2023). Another concern in the literature is the PERMA model's tendency to be overly individualistic and rely on western assumptions and thus a need to conduct more research on diverse cultures (Kern et al., 2015).

4.2.3. Operationalization of Well-Being in the Current Study

There is no universally accepted definition or method for investigating the well-being of students in higher education. However, some definitions include components of subjective, psychological, emotional and social well-being (Douwes et al., 2023). For instance, according

to Hascher (2008, p. 86) well-being in the school setting is inclusive of “subjective, emotional and cognitive evaluations of the school reality and a misbalance of positive and negative aspects in favour of positive aspects”. On the other hand, Fraillon (2004, p.24) defined the well-being of students as “the degree to which a student is functioning effectively in the school community”. Student well-being has also often been conceptualised as the absence of psychopathological issues such as depression or anxiety (Auerbach et al., 2018; Tang & Ferguson, 2014).

For the purposes of this study, well-being is conceptualised according to Seligman’s (2011) PERMA model of well-being and therefore includes both hedonic (e.g., positive emotions) and eudaimonic (e.g., meaning) facets. In addition to the PERMA facets, this study included life satisfaction as a well-being indicator. Hone et al. (2014) recommended integrating life satisfaction with Seligman’s (2011) PERMA model, considering it a related but distinct construct. Furthermore, with well-being now recognized as more than merely the absence of mental illness, the research study sought to assess both the presence of well-being and the absence of depression and anxiety among first-year students.

4.2.4. Well-being in sub-Saharan Africa

Well-being has been a burgeoning area of interest in sub-Saharan Africa. The book *Well-being research in South Africa* (Wissing, 2013) was the first contribution to highlight well-being studies conducted in South Africa. Over the last decade, more contributions have emerged across sub-Saharan Africa. A recent contribution highlighting the growth of well-being research in sub-Saharan Africa is the book *Embracing Well-being in Diverse African Contexts: Research Perspectives* (edited by Schutte et al., 2022). The book focuses on research conducted in Africa that explores flourishing of individuals, groups and societies across diverse cultures and contexts. It includes the measurement of well-being, dynamics of well-being among African samples as well as well-being promotion in Africa.

Most well-being studies in sub-Saharan Africa appear to originate from South Africa (Fadiji et al., 2024; Wissing, 2013; Wissing et al., 2022). However, there is also increasing research on well-being from other countries such as Ghana, Tanzania, and Kenya (Wissing et al., 2022). Wilson Fadiji et al. (2022) also echoed the need for well-being research in Africa to be more attuned to different contexts. Nonetheless, Wilson Fadiji et al. (2022) pointed out, there are promising areas of well-being research in Africa that acknowledge different African concepts, such as studies centered on spirituality and relationships. In Kenya, research related to well-being is an area of growing interest, with budding ideas on vital areas of exploration. For instance, Selvam et al. (2022) emphasised the need for research on well-being to explore the area of hospitality, especially considering the high regard for hospitality in African settings. Accordingly, the researchers investigated hospitality as a character strength. They developed a Hospitality Scale (Tangaza Hospitality Scale) to investigate the relationship between well-being variables and hospitality (Selvam et al., 2022).

Considering that well-being is a construct construed in several ways, this could impact on how well-being research is conducted in Africa (Wilson Fadiji et al., 2022). For instance, whether well-being is understood as the absence of mental disorders or from a strengths-based perspective has a bearing on where the focus of well-being lies. Appiah (2022a) argues that the bipolar model of mental health has highly influenced the promotion of well-being in Africa. This model suggests that mental illness is on the opposite spectrum of mental health and that individuals move from one end of this continuum to the other (Eaton, 1951). Therefore, according to the bipolar model, addressing mental illness would lead to mental health.

However, the validity of the bipolar model has been questioned, and researchers have argued that the absence of mental illness does not necessarily equate to mental health (Iasiello & Van Agteren, 2020). Nonetheless, as Govender et al., (2019) highlighted, this has led to

some research studies in sub-Saharan Africa defining well-being as the absence of mental disorders. Moreover, as Appiah (2022a) pointed out, this can mean fewer initiatives focusing on the promotion of the well-being of the general population as compared to those focusing on the treatment of mental disorders. As discussed in the section below, how well-being is construed has also influenced the research surrounding the well-being of young people in Africa.

4.2.3.1. Well-being of Young People in Africa. Concerning the well-being of young people in Africa, several studies have been conducted in South Africa. Govender et al. (2019) conducted a systematic review of South African studies that focused on young people's well-being (ages 10-24 years). The authors drew attention to how the studies they reviewed had different approaches to well-being and varied their foci. For instance, some leaned more on the eudaimonic viewpoint and thus focused on the individuals' growth and purpose (see Liebenberg & Roos, 2008), while others took on a hedonic approach and considered the individuals' positive and negative affect and satisfaction with life (see Savahl et al., 2015). Still others focused on the social, physical and mental factors that affect well-being and thus adopted a multi-dimensional approach (see Koen et al., 2011). Govender et al. (2019) also pointed out that several studies considered psychological well-being and mental health as similar constructs. Overall, the review illustrated that there is an increasing movement toward viewing well-being in terms of promoting the optimal functioning of young people in South Africa, as opposed to simply an absence of mental disorders.

In Kenya, a significant focus of research on the well-being of young people appeared to be related to psychological well-being and sampled adolescents. These studies have been impactful in highlighting the effects of specific challenges on the well-being of students. For instance, vital concerns such as; perceived post-election violence (Muchai et al., 2014), effects of witchcraft (Mbogo, 2017), and the lack of sanitary products on absenteeism and

psychological well-being (Benshaul-Tolonen et al., 2021). Several studies in Kenya have assessed the impact of the Shamiri (Swahili for 'Thrive') intervention. This school-based intervention is based on brief nonclinical principles (e.g., virtues, growth mindset and gratitude) and delivered by lay providers has been found to significantly reduce depressive and anxiety symptoms in adolescents (Kacmarek et al., 2023; Osborn et al., 2021; Venturo-Conerly et al., 2021).

Some studies have examined youth in specific contexts in Kenya but not necessarily within the school or university context. For instance, Abubakar et al.'s (2014) study investigated how the level of connectedness amongst adolescents of immigrant background affected their psychological well-being. However, this study did not necessarily focus on students within schools. Nyongesa et al.'s (2019) study explored the mental health of, and psychosocial challenges faced by emerging adults living with HIV on the Kenyan coast. This study, however, did not focus on students. Though Madu's (2022) study was conducted in a university setting in Kenya, it limited its focus to specific aspects that may influence students' well-being, such as the role of career choice. In another Kenyan university setting, Churu and Selvam (2020) explored both the awareness of and use of character strengths by a sample of young adults. The researchers found that many of the participants struggled to identify ways in which they could specifically utilize their character strengths.

However, despite the above studies' focus on pertinent concerns affecting the well-being of adolescents and the youth, there is a lack of research on well-being programmes that have been developed and evaluated in universities in Kenya.

4.2.5. Benefits of focusing on improving well-being

Improved well-being can positively affect individuals and societies in different domains. For instance, higher well-being levels have been linked to improved relationships, health, resilience and productivity (Cleary et al., 2020; Lambert et al., 2019). Well-being has

also been linked to lower mortality rates and health care consumption (Chida & Steptoe, 2008). Promoting well-being could help prevent physical illnesses (Veenhoven, 2008), boost resilience and guard against mental disorders (Schotanus-Dijkstra et al., 2017).

As well-being tends to decline between adolescence and adulthood, it has been argued that there is a need to boost and maintain young people's well-being (Keyes, 2007). Ibrahim et al. (2013) in their systematic review of studies of depressive prevalence amongst this population, reported that 30.6% of students show depressive symptoms. This was substantially greater than that of the general population. In addition, poor mental health has been negatively linked to the academic performance and completion rates of university students. However, focusing on the well-being of university students could help guard against mental illness (Bantjes et al., 2023). Moreover, focusing on students' well-being may help improve their academic performance (Cobo-Rendón et al., 2020) and university retention. There is therefore a need to assess the well-being of students to help inform ways to promote their well-being. Du Toit et al. (2022) also highlighted that promoting the well-being of students is worth pursuing for its own sake and not only in relation to academic achievement and mental illness.

4.2.6. Evaluative summary

Well-being encompasses feeling good and functioning well. It does not refer to simply the absence of negative affect (such as loneliness or depression) but also the occurrence of positive affect, such as social connection and positive emotions. Moreover, the absence of mental illness, such as depression and anxiety, does not necessarily mean the presence of positive mental health. Therefore, the research study would evaluate both the presence of well-being and the absence of depression and anxiety.

There has been a steady growth in studies on well-being within Africa. Likewise, studies on well-being have been increasing in universities though there is limited research on

this in low –and middle-income settings like sub-Saharan Africa. This lack of research is despite the widely reported benefits of investing in overall student well-being beyond mere academic performance. Furthermore, the PERMA framework has been implemented across different contexts and found useful within the school setting. Therefore, implementing a programme based on the PERMA framework could aid in boosting the well-being of university students in sub-Saharan Africa. The next section elucidates the activities that could promote well-being.

4.3. Promoting well-being: Positive Psychological Interventions

4.3.1 Defining Positive Psychological Interventions

Over the last two decades, there has been significant growth in research into activities that promote well-being (Koydemir et al., 2021). These activities are known as *positive psychological interventions (PPIs)* and have been designed and implemented to enhance the well-being of individuals, groups, and communities (Parks & Biswas-Diener, 2013).

Different definitions of PPIs have been proposed and debated during the last few decades. Seligman & Csikszentmihalyi (2000) defined positive psychology interventions as activities that lead to flourishing through boosting positive emotions, cognitions, and behaviours. Sin and Lyubomirsky (2009) added to the above definition by emphasising that the activities implemented should not mainly aim at reducing distress but rather be focused on building strengths. However, Bolier et al. (2013) definition of PPIs was narrower than Sin and Lyubomirsky's (2009) definition, as the former emphasised that PPIs should be based on the theory of positive psychology. This led to Bolier et al.'s (2013) meta-analysis of PPIs being quite selective as it only focused on research conducted from 1998 when the positive psychology movement commenced (Bolier et al., 2013; Schueller et al., 2014).

Schueller et al. (2014) argued that a narrow definition (such as Bolier et al., 2013) would be too restrictive and hinder the evaluation of intervention studies that focus beyond

the field of positive psychology but also aim at promoting well-being. Schueller et al. (2014) also argued that there should not be a significant focus on reducing depressive symptoms (as desired by traditional psychological interventions) but instead on improving well-being. Parks and Biswas-Diener's (2013) definition of PPIs highlighted the need for these interventions to be empirically validated activities. Therefore, to classify as a PPI, the intervention's goal should not only be to improve well-being, but the pathways or strategies used to achieve this goal should be based on empirical research (Schueller et al., 2014; Van Zyl & Rothmann, 2019). Parks and Biswas-Diener's (2013) definition distinguishes PPIs from many activities that promote positivity but do not have scientific evidence to support their effectiveness (Parks & Titova, 2016).

Schueller et al. (2014) suggested the term "positive psychological interventions" to highlight the need to include interventions that are theoretically on par with positive psychology's aims despite not mentioning the theory in the study. This term includes interventions such as physical exercise and mindfulness that are not necessarily rooted within positive psychology and studies published before the establishment of the field of positive psychology that also focused on promoting flourishing (Koydemir, 2021; Schueller & Parks, 2014). Schueller and Parks (2014) proposed specific pathways through which PPIs operate: savouring pleasurable experiences, expressing gratitude, engaging in acts of kindness, promoting pleasurable relationships, and promoting meaning and hope. These, including optimism and strengths, are well-researched areas of PPIs (Stone & Parks, 2018).

In their meta-analysis, Hendriks et al. (2018, p. 72) defined PPIs as "interventions aiming at increasing positive feelings, behaviors, and cognitions, while also using theoretically and empirically based pathways or strategies to increase well-being". Ng and Lim (2019) highlighted that PPIs should also be more expansive to include activities that target collectivistic cultures and not only aimed at improving the individual's well-being. The

authors also suggested that the definition of PPIs should include activities that may not be viewed as characteristically positive in nature, such as resilience, but promote well-being.

In this research study, Hendriks et al.'s (2018) proposition is used to conceptualize positive psychological interventions as those activities that use empirically based pathways to promote well-being through increasing positive feelings, cognitions, and behaviours. This study also conceptualizes PPIs using Ng and Lim's (2019) suggestion to be more inclusive and incorporate activities such as those that focus on building resilience, which are not often instinctively regarded as positive. The term "positive psychological interventions", as Schueller et al. (2014) proposed will also be used in this study to emphasise that some interventions, such as mindfulness-based activities, may not necessarily be rooted within positive psychology yet align with positive psychology's aims.

4.3.2 The Outcomes of Positive Psychological Interventions

There is a broad range of PPIs that have been reviewed and validated, for example, interventions that involve showing and writing about gratitude (Cunha et al., 2019), performing acts of kindness (Curry et al., 2018) and identifying and utilising one's strengths (Santos et al., 2013). PPIs have been shown to improve emotional and psychological well-being (Bolier et al., 2013) and have been implemented in various contexts and populations (Hendriks et al., 2018; Kim et al., 2018). Several meta-analyses and systematic reviews examined the effectiveness of PPIs in improving well-being (Bolier et al., 2013; Carr et al., 2020; Chakhssi et al., 2018; Donaldson et al., 2021; Hendriks et al., 2019; Koydemir et al., 2021; Sin & Lyubomirsky, 2009; Weiss et al., 2016). These reviews indicated that PPIs have a significant small to moderate effect on well-being. In addition, a wide range of PPIs in the above meta-analyses were found to be effective in improving the well-being of both the general population (Bolier et al., 2013; Koydemir et al., 2021; Sin & Lyubomirsky, 2009) and

vulnerable populations (Bolier et al., 2013; Carr et al., 2021; Chakhssi et al., 2018; Weiss et al., 2016) as well as in samples from non-Western countries (Hendriks et al., 2018).

In addition, PPIs are quite adaptable for use in several formats, such as self-help (Schueller & Parks, 2014), online (Bolier & Abello, 2014) and whether administered in group settings (Parks & Titova, 2016). Koydemir et al. (2021) also found that longer interventions (in terms of the number of sessions) were more effective in boosting well-being than shorter sessions.

Research on PPIs has been conducted on multi-component positive psychology interventions (MPPIs) and single-component positive psychology intervention studies (SPPIs). The latter refers to studies where a positive psychology activity is geared toward one domain of well-being (often hedonic well-being), while MPPIs focus on two or more hedonic and eudaimonic well-being elements and have several evidence-based activities (Hendriks et al. 2020; Tejada-Gellardo et al., 2020). Hendriks et al. (2020) in their systematic review of multi-component positive psychology interventions, found that MPPIs have a small to moderate effect on improving psychological well-being. Though the authors also noted that the limited number of randomised controlled trials in their study (50) could have influenced their findings, they found that MPPIs did have a small effect on depression and subjective well-being.

Significant benefits have also been found when PPIs are based on all aspects of the PERMA model rather than when used in isolation (Morgan et al., 2023; Smith et al., 2021; Yang et al., 2024). Gander et al.'s (2016) study also indicated the effectiveness of PPIs, based on Seligman's (2011) PERMA model, in alleviating depressive symptoms for up to 6 months and increasing well-being. Other meta-analyses have been more focused on evaluating specific PPIs aimed at positive aspects, such as gratitude (Davis et al., 2016), kindness (Curry et al., 2018) and signature strengths (Schutte & Malouff, 2019).

The benefits of PPIs have been attested in literature, and empirically validated PPIs have been used in educational settings to address student well-being (Morgan et al., 2023; Shankland & Rosset, 2017; Smith et al., 2021; Waters, 2011; Yang et al., 2024). However, much of the research on well-being and PPIs use samples from Western, Educated, Industrialised, Rich, and Democratic (WEIRD) countries (Henrich et al., 2010; Hendriks et al., 2018). Despite the growing range of PPIs, the majority have been developed in Western countries. In this regard, there has been increasing awareness that PPIs need to be adapted for use in different settings such as non-western contexts.

4.3.3 Positive Psychological Interventions in Non-Western Contexts

Research on PPIs out of a WEIRD context is a growing area of interest. For instance, Donaldson et al. (2021) in their systematic review found that PPIs, despite the negative consequences of the global COVID-19 pandemic, were effective in improving well-being particularly in non-Western countries. The review also identified four of the most influential PPIs in producing well-being in a pandemic. The most common topics included gratitude, positive relationships, mindfulness, positive emotions, and strengths (Donaldson et al., 2021). However, these PPIs had been applied in WEIRD countries, and the majority were delivered online. The authors noted that despite online interventions having a wider reach, those in non-WEIRD countries may not have similar access to technology and thus may require different modes of delivery such as physical self-help lessons.

Unlike Donaldson et al.'s (2021) review, Hendriks et al. (2018) systematic review focused specifically on positive psychological interventions (PPIs) in non-Western countries. Compared to Western countries, the evaluation showed that PPIs from non-Western countries had a more significant effect on anxiety and depression but a moderate impact on subjective and psychological well-being. Hendriks et al. (2018) noted that the low qualities of studies could have influenced effect sizes. However, Hendriks and Graafsma (2019) also suggested

that the efficacy of the PPIs in non-Western countries could have been accounted for by the less stigmatizing nature of the PPIs which then encourages engagement. Moreover, the authors noted that PPIs that focus on enhancing social relationships or those that integrate knowledge and techniques based on eastern philosophies (such as mindfulness), may be highly effective in collectivistic cultures in non-western countries.

Nonetheless, Hendriks and Graafsma (2019), emphasised the need to consider whether interventions have a good cultural fit before implementation. It has been noted by other scholars (e.g., Appiah, 2022b; Parks & Titova, 2016) that being cognizant of the cultural differences between different contexts would also provide a more holistic view of the effectiveness of PPIs . Moreover, it could lead to greater participation and commitment in interventions, thus raising the effect size of these interventions (Hendriks et al., 2018).

Considering this, Hendriks and Graafsma (2019) proposed 17 guidelines for culturally adapting PPIs for use in non-western contexts. These range from gaining an understanding of the cultural context and involving stakeholders to using local lay trainers to conduct the interventions. As collectivistic cultures are interdependent, Hendriks et al. (2018) also suggested that group interventions may better promote well-being.

The benefits of PPIs in non-western contexts have been noted in literature. For instance, where accessibility to mental health services is complex, PPIs may help close the mental health gap and foster engagement by focusing on less stigmatizing and more acceptable positive concepts (Weiss, 2016). There is also increasing awareness of the need to consider the acceptability and efficacy of PPIs within diverse cultures (Appiah, 2022b). However, when compared to the global context, there appears to still be an imbalance in implementing PPIs in some non-western contexts such as Africa.

4.3.3.1 Positive Psychological Interventions in Africa

There appears to be an imbalance in implementing PPIs in Africa as compared to the rest of the world. Despite the growing research on PPIs in Africa, literature in this area is still quite limited (Guse, 2022). This is highlighted in Hendriks et al.' (2018) review, which indicated that 78% of PPIs originated in Western contexts, and only two were implemented in Africa. However, Guse's (2022) scoping review on the implementation of PPIs in Africa was more inclusive than Hendriks et al. (2018) review and analysed 23 studies. This was because the former review included PPIs implemented using methodologies other than RCTs and it also included broader definitions of PPIs (see Ng & Lim, 2019). However, Guse's (2022) review also indicated that majority of the PPI studies in Africa utilised quantitative research designs and therefore did not elaborate on the experience of PPIs within the communities.

The review also highlighted the need to conduct more studies on how existing PPIs can be culturally adapted to suit the community's needs. For example, in African societies where collectivistic values are embraced, PPIs that focus on individualistic values may be less efficient (Ng & Lim, 2019). Appiah (2022b) provided some suggestions on how certain PPIs (more specifically gratitude, optimism, savouring and meaning-oriented interventions) can be designed and implemented in sub-Saharan Africa while taking socio-cultural considerations into account. Appiah (2022b) also argues that tailoring PPIs to the context requires collaboration with the communities involved.

Within the broader African context, most of the studies on PPI programmes have been implemented in South Africa (Guse, 2022; Kim et al., 2018; Teordorczuk et al. 2019; van Schalkwyk, 2022). However, the Inspired Life Program (Appiah et al., 2020) is an example of an MPPI that was designed and implemented in Ghana. The authors utilised a quasi-randomised controlled trial design to investigate the effect that the ILP, a multi-component positive psychology programme, had on rural poor adults in Ghana. Compared to the control

group, immediately and after three months, participants in this 10-week program had increased positive mental health and decreased symptoms of depression (Appiah et al., 2020). The study suggests the value of implementing PPI programmes in other African countries apart from South Africa.

Of the studies included in Guse's (2022) scoping review of positive psychological interventions in Africa, only one was conducted in Kenya (see Baranov et al., 2020) which is where this research study takes place. Overall, despite the positive trends in PPI studies, there is room for more research on the implementation of PPI programmes in Africa. The section below elaborates specifically on PPIs in universities in Africa.

4.3.3.2 Positive Psychological Interventions in University Settings in Africa

Limited studies have evaluated the use of PPIs in university settings in Africa despite their reported benefits in improving well-being (Guse, 2022). These studies have also drawn samples from different academic years. For instance, Van Zyl and Rothmann (2012) included a convenience sample of third year students in their PPI programme that aimed at increasing happiness. On the other hand, Pretorius et al. (2008), drew a sample from across the academic years to participate in a hope enhancement intervention programme. Considering that the promotion of the well-being of students has proven to be essential, these studies have been beneficial in developing and evaluating PPI programmes.

However, majority of these PPIs have been implemented in South Africa (see Miano, 2016; Pretorius et al., 2008; Van Zyl & Rothmann, 2012). Rugira et al.'s (2015) study is an example of a PPI programme that was implemented in a different sub-Saharan country (i.e., Tanzania). The 8-week programme developed by the authors included themes of perspective and meaning, physical exercise, coping, hope, relationships, and self-knowledge and aimed at improving psychological well-being. Rugira et al. (2015) noted that it was vital to consider that students transitioning into university face myriads of challenges and therefore enhancing

their psychological well-being needs to be a priority. Thus, undergraduate students participated in the study with the experimental group comprising first-year students, whilst second-year students formed the control group.

However, limited PPI studies have drawn a sample specifically from first year students who have transitioned into the university setting. Moreover, as far as can be established, there is a lack of research into the effectiveness of PPI programmes in Kenyan university settings, particularly among first-year students.

4.3.4. Evaluative Summary

A wide range of PPIs have been reviewed and validated, for use with various populations and in different contexts. Some PPI programmes are founded on the PERMA model of well-being. PPI programmes based on the PERMA framework are examples of MPPIs as they combine the hedonic and eudaimonic approaches to well-being. The PERMA model of well-being appears flexible and has been implemented in school and university settings. However, there are limited studies that have incorporated the PERMA framework in the development and evaluation of PPI programmes in university settings. More so, there are fewer studies that have explored the promotion of well-being of students transitioning to university settings in Africa and particularly in Kenya. Therefore, exploring the effect of implementing a programme (based on the PERMA model) on the well-being of first-year students in Kenya would possibly aid in understanding the applicability of the PERMA model within this context. This study aims to address these knowledge gaps and thereafter offer guidelines for implementing PPIs in higher education settings in Kenya. The following chapter discusses the methodology employed in this study.

Chapter 5: Research Methodology

5.1. Introduction

This chapter discusses the methodology that was employed in this research study. Due to the nature of the research questions and objectives, the study applied a mixed-method approach that included quantitative and qualitative components. The chapter also describes the research paradigm that informed the research design. In addition, the chapter provides an outline of the research methods and data collection procedure. It also describes the procedure for implementing the positive psychological intervention programme and data analysis. The chapter concludes by elucidating the role of the researcher, the research quality and the study's ethical considerations.

5.2. Research Question and Objectives of the Study

The study's main aim was to investigate the influence of a positive psychological intervention programme on the well-being of first-year students at a university in Kenya. Thus, two broad questions were formulated:

1. *What changes occur in first-year students' well-being after participating in a positive psychological intervention programme?*

To answer this, the following objectives were set:

- To develop a positive psychological intervention programme based on Seligman's (2011) PERMA model of well-being;
- To investigate levels of well-being as well as depression and anxiety (symptoms of mental ill-health) among first-year students- a quantitative study;
- To implement a positive psychological intervention programme; and

- To examine levels of well-being, depression, and anxiety among the first-year students after taking part in the positive psychological intervention programme -a quantitative study.
2. How did the participants experience the positive psychological intervention programme?

The following objectives were set to answer the above question:

- To explore first-year students' experience after taking part in the positive psychological intervention programme- a qualitative study;
- To explore the participants' perceptions of the influence of the programme on their thoughts, emotions, and behaviour, or general well-being; and
- To explore the specific aspects of the programme that contributed to the participants' well-being

The findings of both questions would lead to the following final objective:

- To propose a framework for implementing a positive psychological intervention programme to enhance student well-being among Kenyan university students.

5.3 Research Paradigm

A research paradigm refers to the underlying beliefs that inform a study's research design, including the collection and analysis of data. It is, therefore, a philosophical position or worldview that serves as the foundation for the research choices made by the researcher (Creswell & Creswell, 2018). Different paradigms have influenced research studies, including post-positivism, constructivism, transformative, and pragmatism. Post-positivism assumption tends to be the basis for quantitative research, where reality is viewed as objective. On the contrary, constructivism (or social constructivism) is a worldview popular in qualitative research where the researcher aims to interpret individuals' subjective meanings

of their experiences. Research studies with a transformative paradigm focus on helping individuals or groups that have been marginalised through social and political action (Creswell & Creswell, 2018).

However, pragmatism is the worldview that informs this research study. Pragmatism is a philosophical orientation that is not dedicated to one view of reality (Creswell & Creswell, 2018). In this regard, pragmatists do not focus on using one approach (e.g., qualitative or quantitative) to gather and analyse data, as both objective and subjective knowledge is viewed as contributing to a deeper understanding of the phenomena being investigated. The pragmatic researcher is also free to choose the research methodology that addresses their research questions (Creswell & Creswell, 2018; Dawadi et al., 2021).

Following this pragmatic viewpoint, a mixed methods research approach was suitable to meet the study's objectives. Therefore, objective quantitative and subjective qualitative data were obtained to provide information on the well-being of first-year students. Moreover, as Bishop (2015) highlighted, pragmatism affirms that producing positive change should be a shared broad research objective. This aim makes pragmatism a suitable approach in this study, which aims to promote a framework for implementing positive psychological programmes to enhance student well-being. The following section discusses the mixed methods research approach and design in more detail.

5.4. Research Approach and Design

A mixed methods approach was employed in this research. This approach provides a richer understanding of a research question by combining quantitative and qualitative perspectives (Creswell & Creswell, 2018). In this study, a quantitative component examined the effect of a positive psychological intervention programme on the well-being of first-year students. A qualitative component also explores the students' experience after participating in the programme. As highlighted in Chapter 4, there is limited qualitative data on how first-

year students in Kenya experience positive psychological interventions. Therefore, this qualitative component could add more profound insight into their experiences. Integrating the quantitative and qualitative elements allowed for a fuller understanding of the influence of positive psychological interventions on the well-being of first-year students.

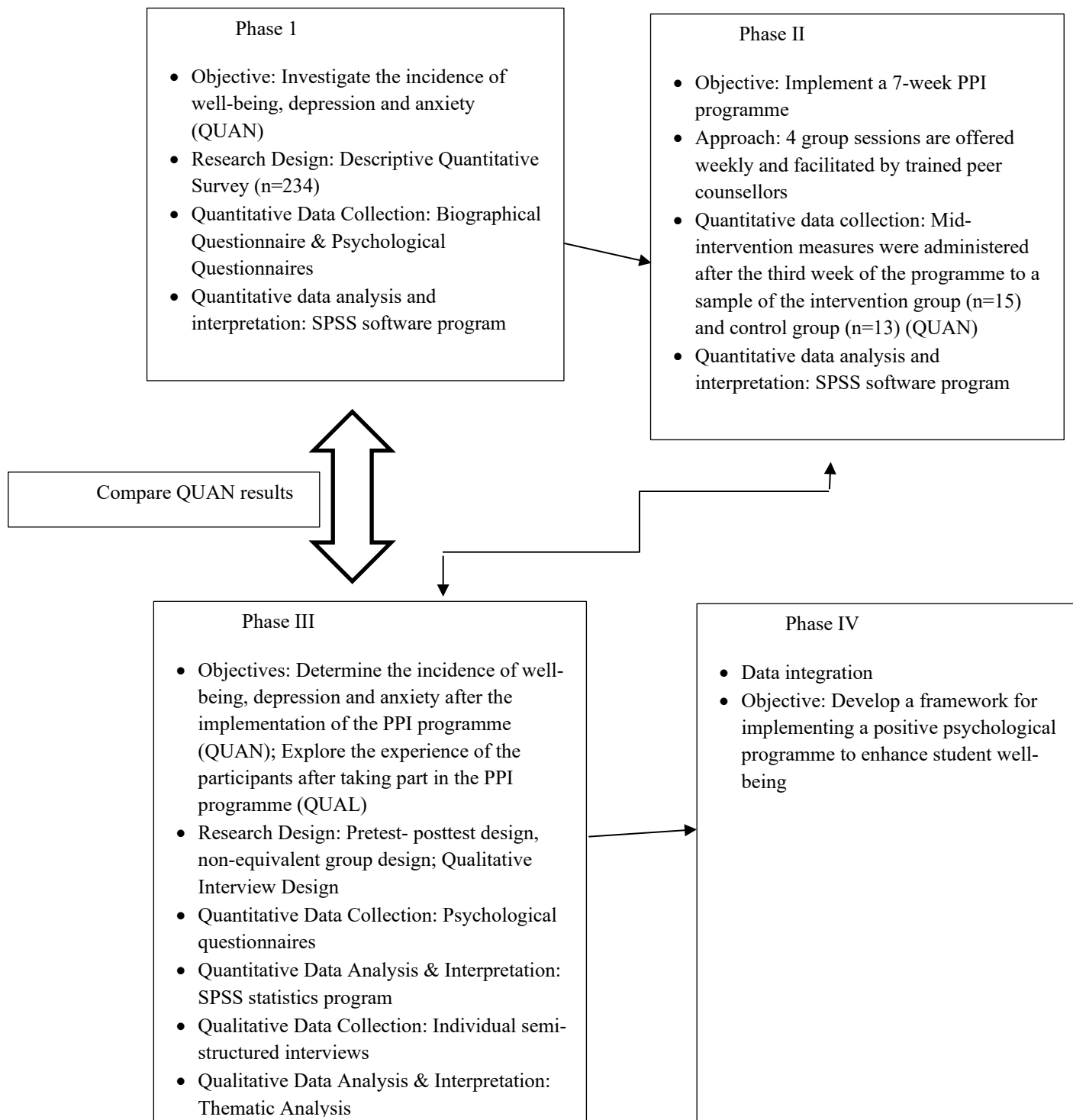
Moreover, the triangulation of data using a mixed methods approach enhances the validity of the results (Dawadi et al., 2021). Therefore, the findings from one method (i.e., quantitative or qualitative) are compared to those drawn from another. This comparison leads to deeper insights and more robust inferences than when a single method is used (Dawadi et al., 2021). Another significant advantage of a mixed-methods approach is that it provides a greater understanding of a research problem by combining the strengths of both the quantitative and qualitative approaches while counteracting the weaknesses of either of the approaches (Creswell & Plano Clark, 2018). There are several ways to conduct mixed methods, and the different designs depend on the study's objectives. This study adopted a multiphase mixed methods design, elucidated further in the section below.

5.4.1 Multiphase Mixed Methods Design

A multiphase mixed method design commonly involves several study phases and combines convergent and/or sequential aspects of quantitative and qualitative data collection methods (Creswell & Plano Clark, 2018). In this study, the multiphase design allowed the qualitative and quantitative aspects of the study to supplement each other, enabling the development of a framework for implementing a PPI programme with first-year students. Figure 1 illustrates this study's four phases, briefly outlined below.

Figure 1

Outline of Research Design



Note: PPI = Positive Psychological Intervention; QUAN = Quantitative research methods;

QUAL = Qualitative research methods; SPSS = Statistical Package for the Social Sciences

During Phase 1, a cross-sectional survey design was employed to obtain information on the levels of well-being, depression, and anxiety among first-year students. Through a cross-sectional survey design, one can use sample results to draw inferences about a population (Creswell, 2014). Pre-intervention measures were administered to 234 first-year students at Pwani University, Kenya, during this phase. The participants completed a self-constructed biographical questionnaire (see Appendix A). Quantitative data was gathered using measures that assessed levels of well-being, depression, and anxiety.

In Phase II, the researcher implemented a 7-week positive psychological intervention programme based on Seligman's (2011) PERMA model of well-being. A sample was drawn from the overall sample and invited to participate in the programme. Prior to implementation, a three-session pilot study took place to gain information on the adaptability of the PPI programme in the student context. Thereafter, the 7-week PPI programme, which consisted of 4 group sessions, was implemented weekly.

The sessions were facilitated by four trained peer counsellors (each session had 2 facilitators). The peer counsellors were students who, through the university's student counselling centre, had been trained in basic counselling and communication skills to assist fellow peers. These students had also been trained in the facilitation of problem-solving skills and were familiar with the various challenges facing university students. For this study, the researcher also thoroughly trained the peer counsellors in implementing the programme. The PPI programme is further described in section 5.5.3. Mid-intervention measures were administered after the third week of the programme.

In the third phase, the measures were re-administered as post-intervention quantitative measures to the intervention group (n=34) and the control group (n=34). In this phase, the pre-intervention quantitative data was compared to the post-intervention quantitative data. This comparison assisted in determining the influence of the positive psychological

programme on the participants' levels of well-being, depression, and anxiety. In addition, qualitative data was collected after the conclusion of the PPI programme. This was achieved using semi-structured individual interviews that focused on exploring the participants' (n=17) general experience of well-being.

Finally, in Phase IV, the qualitative and quantitative data were integrated for triangulation purposes to ensure the trustworthiness of the findings (Creswell, 2014). This allowed for the development of a framework for implementing positive psychological intervention programmes to enhance student well-being among Kenyan university students.

5.5 Research Method

5.5.1 Sampling

5.5.1.1 Population and Setting. The study occurred at Pwani University, a public university in Kilifi County, in coastal Kenya. In Kilifi County, the vulnerability of university students' well-being may be further compromised by inadequate mental health care facilities and under-resourced health care (Bitta et al., 2017). Four out of six faculties at Pwani University were randomly selected. These four faculties were chosen out of seven using the fishbowl technique to reduce selection bias by drawing a random cluster sample. First-year students enrolled in the different programmes within those faculties were selected.

The inclusion criteria for this sample were first-time, first-year students with a minimum age of 18 years, willingness to participate in a PPI programme and fluency in English as it was the medium of communication utilised in the study. For participants of phase II (the intervention programme), the inclusion criteria also included a willingness to share their experiences of the PPI programme through a semi-structured interview and consent to have the interview audio recorded and transcribed. The exclusion criteria for phase II of the study were students who had participated in a programme at the university aimed at

improving their well-being and students exhibiting severe symptoms of depression and anxiety.

5.5.1.2 Sampling method and size. For the first phase of the study, purposive sampling was the non-probability strategy employed in an attempt to get all possible cases that meet a specific criterion (Creswell, 2014). Purposive sampling was adopted as the aim was to select a few first-year students from various study programmes at Pwani University, yet with a mix of characteristics that reflect diversity, such as gender and the nature of the academic program they were enrolled in. Participants for phase I of the study were drawn from four faculties/schools at Pwani University (School of Education, School of Business and Economics, School of Agriculture and Agribusiness and School of Humanities and Social Sciences).

Before meeting with the students, the researcher sought assistance from class representatives enrolled in different academic programmes within the above four faculties. These representatives suggested suitable times for the researcher to meet with the first-year students to run information sessions and collect data. The researcher also consulted several lecturers within those schools to determine appropriate times to meet with the students. The most convenient time was at the end of a lecture, depending on whether the students did not have other lectures or activities to attend. On two occasions, the lecturers asked if the researcher could provide information about the study to the students before a lecture. The students who were willing to participate provided informed consent and completed a biographical questionnaire and the pre-intervention measures. During this phase, the sample was 234 participants.

Purposive sampling was again used to select participants for phase II of the study. These participants took part in phase I and met the inclusion criteria. This is also known as nested sampling and entails identifying participants from the previous sample of participants

(Onwuegbuzie & Collins, 2007). Based on the participants' scores on the depression and anxiety measures that had been administered in the first phase, 19 students were found to be exhibiting severe symptoms of depression and anxiety. These students were referred to Pwani University's student counselling centre for further assessment and assistance. Severe mental illness symptoms can profoundly comprise students' functioning, and well-being in higher education (Auerbach et al., 2016; 2018). Therefore, it was to ensure that students exhibiting severe mental illness symptoms received individualised care and attention.

Thereafter, 11 students were randomly selected from the remaining overall sample and invited to participate in the programme's pilot study. On average, five students attended the pilot study, which included three sessions of the PPI programme. The participants provided feedback that the programme should include more energisers within the sessions to help increase the engagement of participants. The participants also recommended that the sessions be offered half an hour earlier so that participants could have time to engage in other activities after the sessions. The PPI programme was adjusted based on these suggestions.

The remaining sample (210 students) was matched based on age, gender, and their scores on the pre-intervention measures. One of each paired individual was randomly assigned to the intervention programme or a non-intervention control group. Based on this, 54 students were assigned to the PPI programme and 54 to the control group.

The statistical program G*Power 3.1. (Heinrich-Heine-Universität, Dusseldorf, Germany) was used to compute a target sample size for phase II. The effect size was set at 0.70, a significance level of 0.05 and the power was set at 80%. To detect a statistical difference in the primary outcome and considering a 15% drop out rate, we aimed for a minimum of 40 participants in phase II (intervention programme) and 40 in the control group. Some contacted individuals dropped out because they couldn't attend the sessions at the offered times. Therefore, at the end, 34 students participated in the PPI programme, and 34

were in the control group. The exact number participated in phase III and completed the post-intervention measures.

However, prior to the completion of phase II, mid-intervention measures were also administered after the third week of the programme to a random sample of participants from phase II (n=15) and the control group (n=13). Mid-intervention measures were those administered as baseline pre-intervention measures. The measures were administered a few days to assess the participants' well-being before the university's academic exams season started. However, not all participants were available to complete the mid-intervention measures; hence, the sample size was smaller when compared to the participants who completed the pre-intervention measures.

For phase III, nested sampling was employed to obtain participants for qualitative data collection. The aim was to explore participants' experience of the PPI programme on their well-being, so 18 participants from phase II were selected based on the inclusion criteria outlined in section 5.5.1.1. These participants consented to individual semi-structured interviews that took place after the conclusion of the PPI programme. However, a technical error led to the loss of one audio recording, which resulted in the transcription of only 17 interviews.

5.5.1.3 Participants. The participants in phase I of the study were 234 first-year students from four faculties at Pwani University. Table 1 shows the demographic information of the participants. Most of the individuals (78.5%) were in the 18-20 age group, and the majority of the students were male (53.5%). Most students reported being single (87.8%), and the largest percentage were affiliated with the School of Education (35.9%). Most students (53%) reported living on campus, while 47% reported living off campus. Moreover, most students (82%) reported that they did not take substances.

Most participants (81.5%) indicated they could not comfortably meet their financial needs. The students were asked to report their awareness of support services offered at the university. Responses revealed that religious/spiritual services were the most commonly known support services (84.9%).

Table 1

Demographic information of participants in Phase I (n=234)

Demographic Variable	N	%
Gender		
Male	125	53.5%
Female	108	46%
Other	1	0.4%
Age		
18-20 years	184	78.5%
21-23 years	42	18%
24-26 years	3	1.3%
>27 years	2	0.9%
Relationship Status		
Single	205	87.8%
Prefer not to say	17	7.4%
In a relationship	9	3.9%
Separated	2	0.9%
School of Affiliation		
Education	84	35.9%

Business and Economics	61	26%
Humanities and Social Sciences	61	26%
Agriculture and Agribusiness	28	12.1%
Substance Use		
No	192	82%
Yes	42	18%
Residence Type		
Off-campus	124	53%
On-campus	110	47%
Financial standing	Yes	No
	n (%)	n (%)
Difficulty meeting financial needs	150 (81.5)	34 (18.5)
Need to borrow money often to meet my financial needs	100 (64.9)	54 (35.1)
Difficulty meeting financial needs but contented	84 (51.2)	80 (48.8)
Trouble managing finances	73 (49.7)	74 (50.3)
Need to work part-time to meet financial needs	59 (40.7)	86 (59.3)

Comfort in meeting	31 (21.1)	116 (78.9)
financial needs		
Knowledge of services	Yes	No
	n (%)	n (%)
Religious/ Spiritual	174 (84.9)	30 (14.6)
support		
Academic guidance	130 (73.9)	45 (25.6)
Emotional support	107 (57.5)	79 (42.5)
Social support	73 (45.1)	89 (54.9)
Mentorship/ Career	77 (44)	98 (56)
guidance		
Financial Aid/ Guidance	48 (27.6)	126 (72.4)

For Phase II of the study, 53% of the 34 participants who completed the PPI programme were female, and 47% were male. Of the 18 participants who provided qualitative data, the majority (61%) were female.

5.5.2 Data Collection

5.5.2.1 Timing of the data collection. The study's main aim was to investigate the influence of a positive psychological intervention programme (PPI) on the well-being of first-year students at a university in Kenya. To achieve this, quantitative data was collected pre- and post-intervention, while qualitative data was collected after intervention implementation. Before implementing the PPI programme, first-year students completed a biographical questionnaire and pretest questionnaires to establish their well-being. This process lasted approximately two weeks. Thereafter, the pilot study of the PPI programme was conducted,

and three sessions within the programme were offered in one week. Following this, the intervention programme was offered for 3 weeks as due to the commencement of the university's exam period, it was considered necessary to pause the intervention programme and to resume after 4 weeks once the students returned from their semester break. Thereafter, participants attended the PPI programme for another 4 weeks. Several participants had yet to report to the university during the first week of the new semester, so they could not attend the week 4 session on 'Relationships'. To counter this, this session was reoffered once the programme's final session took place. Immediately after completing the PPI programme, the participants completed the post-intervention measures. Semi-structured interviews took place two weeks after post-intervention quantitative data collection.

5.5.2.2 Quantitative Data Collection. During phase I and III of this study, several measures were used to collect quantitative information as self-reported data in a paper-pencil format. An external research associate assisted the researcher in phase I of the administration process to obtain data from the 234 students. Firstly, the students received an information letter detailing the study's purpose (see Appendix B). A consent form was also provided to ensure voluntary participation in the study (see Appendix C). The following questionnaires were then completed by those willing to take part in the study:

The researcher designed a biographical questionnaire to gather socio-demographic information about the participants (e.g., age, gender, accommodation type) (see Appendix A). Prior research has indicated that socio-demographic factors may impact well-being (Khumalo et al., 2012), so this study also assessed the influence of these factors on first-year students' well-being.

The PERMA Profiler (Butler & Kern, 2016) is a brief 23-item based on Seligman's (2011) model of well-being and is used to measure well-being. It includes questions on the five well-being aspects depicted in Seligman's (2011) model (Positive Emotions,

Engagement, Relationships, Meaning and Accomplishment). It also includes additional items that assess loneliness, physical health, happiness, and negative emotions. Participants answer questions on an 11-point Likert scale (0 = never/ terrible/ not at all; 10 = always/ excellent/ completely). The PERMA profiler has highly acceptable psychometric properties across large and diverse populations with an overall Cronbach's alpha value of 0.90 (Butler & Kern, 2016). Rating scales are regarded as having acceptable-to-excellent internal consistency if Cronbach's alpha coefficients are between 0.70 and 0.95 (Tavakol & Dennick, 2011). The PERMA profiler has also proven reliable when used with various samples of students (Butler & Kern, 2016; Coffey et al., 2016; Umucu, 2021).

In this study, a Cronbach alpha of 0.79 was obtained for overall well-being (the average of the PERMA sub-scales). The Cronbach's alpha for the subscales ranged between 0.50 and 0.86. However, the Engagement (0.50) and Relationships (0.56) sub-scales did not meet the standard reliability threshold of 0.70 (Tavakol & Dennick, 2011). Similar low-reliability scores for the Engagement sub-scale have been observed in other studies (Butler & Kern, 2016; Chaves et al., 2023; Pezirkianidis et al., 2021). Pezirkianidis et al. (2021) posited that the Engagement sub-scale measures general engagement rather than specific contexts like work or school, and its interpretation can vary by culture. Excluding item 17, "How often do you lose track of time while doing something you enjoy?", raised the Cronbach alpha to 0.79. This might be because participants viewed 'losing track of time' negatively.

Similarly, excluding item 8 on the Relationships sub-scale, "to what extent do you receive help and support from others when you need it", increased the reliability score to 0.73. Participants may have viewed this item as financial support rather than various forms of interpersonal support. To improve reliability, items 17 on the Engagement sub-scale and 8 on the Relationships sub-scale were omitted from further analyses.

The Satisfaction with Life Scale (SWLS) (Diener et al., 1985) is a 5-item scale that assesses global life satisfaction. The SWLS is rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Two examples of items in this scale are “The conditions of my life are excellent” and “So far I have gotten the important things I want in life”. The scores range from 5 to 35, with scores between 30 and 35 indicating that respondents are extremely satisfied with life, while scores between 5 and 9 indicate that they are extremely dissatisfied with life. Scores between 20 and 24 are in the mid-range and indicate general life satisfaction, though with areas that require improvement. The scale has been proven to be a valid and reliable tool in African contexts. For instance, in South Africa, Wissing and Van Eeden (2002) obtained Cronbach alpha coefficients ranging from .78 to .86. Likewise, the SWLS has proven to be a reliable tool with a rural Ghanaian sample, Appiah et al. (2020) reported an omega reliability coefficient of 0.87. This study obtained a Cronbach Alpha coefficient of 0.80 for the SWLS.

The Patient Health Questionnaire-9 (PHQ-9) (Kroenke et al., 2001) is a brief, nine-item scale that is derived from the Patient Health Questionnaire (PHQ). The PHQ-9 measures the degree of symptoms of major depression experienced in the previous two weeks according to the criteria set in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Respondents rate the symptoms on a 4-point Likert scale ranging from 0 (not at all) to 3 (nearly every day). It has been used to monitor depression severity and response to treatment. Higher scores indicate higher severity of depression. The PHQ-9 has proven to be a valid and reliable tool in a Western sample with Cronbach alpha coefficients of 0.86 and 0.89 (Kroenke et al., 2001). In Africa, the PHQ-9 reported Cronbach’s alpha of .78 with Nigerian students (Adewuya et al., 2006). Makhubela and Khumela (2023) further supported the validity and reliability of the PHQ-9 in a sample of African university students from

South Africa, Ghana and Kenya with Cronbach alpha coefficients ranging from 0.82-0.85. In this current study, a Cronbach alpha coefficient of 0.77 was obtained for the PHQ-9.

The *Generalized Anxiety Disorder 7-item scale (GAD-7)* (Spitzer et al., 2006) is a brief measure that screens for Generalized Anxiety Disorder. The seven items are scored on a Likert scale ranging from 0 (not at all) to 3 (nearly every day). The items ask respondents questions such as how often they have been troubled by problems, such as feeling restless or nervous, in the previous two weeks. For instance, Osborn et al. (2020) reported a Cronbach alpha coefficient of 0.78 with a sample of high school students. Odera et al. (2023) reported a Cronbach alpha of 0.82. This study obtained a Cronbach alpha coefficient of 0.88 for the GAD-7.

5.5.2.3 Qualitative data collection. In Phase III, qualitative data was collected after the conclusion of the PPI programme. Individual semi-structured interviews were conducted with 18 participants from the intervention programme who had consented to take part in the interviews.

The interviews were conducted within 2 weeks after completing the PPI programme and post-intervention quantitative data collection. This was to assist with a more accurate recall of participants' experiences. Participants were asked to indicate their availability, and the researcher and the external research associate who had assisted with the administration of measures during phase I conducted face-to-face interviews in English. With the consent of the participants, the interviews were audio-recorded and transcribed verbatim. The duration of the interviews ranged from 20 to 50 minutes. Open-ended questions allowed the interviewer to probe deeper into the participants' experiences. Questions explored their experience of the programme in general and of the sessions within the programme, their experience of the activities within the programme and homework tasks, and their experience of the presentation and content of the programme. In addition, the questions explored whether

different aspects of the programme had influenced their thoughts, feelings and behaviours. A semi-structured interview guide is attached as Appendix D.

5.5.3 Positive Psychological Intervention Programme

5.5.3.1 Designing the intervention programme. The researcher designed a 7-week positive psychological intervention programme following suggested guidelines for formulating intervention programmes (Craig & Petticrew, 2013; Van Zyl et al., 2019). Thereafter, a simulation of the sessions within the programme took place between March and May 2022 with eight peer counsellors from Pwani University who volunteered to participate in the simulation sessions. During these sessions, the researcher presented the programme to the peer counsellors. This process aimed to identify possible challenges in presenting the PPI programme. The peer counsellors helped evaluate both the structure of the programme and its content. The feedback on the sessions assisted the researcher with revising the programme and determining the most appropriate ways to communicate the psychological constructs within it.

Thereafter, the researcher contacted five experts in positive psychology who had had experience implementing positive psychological interventions. They were asked to review a revised draft of the programme manual, and their input contributed to further revisions. Following this, the training of the facilitators of the programme took place and lasted for two months (between July and September 2022). The facilitators were 4 of the peer counsellors who participated in the programme. The training included in-depth discussions on the sessions' content and structure.

5.5.3.2 Implementing the intervention programme. The PPI programme consisted of 7 sessions of 90 minutes duration and was conducted over 7 weeks. The sessions were held at a suitable facility in the university. Each week focused on a particular session, offered 4 times (Tuesday to Friday) during that week. Prior to the start of the intervention programme,

the researcher contacted the participants telephonically to invite them to the programme. This also allowed participants to communicate which day best suited them to attend the session, and they joined one of the four groups in the week. Each group consisted of approximately 10 participants to allow for effective group discussions. During the first session, all participants were provided with a pen and notebook that they could use to note down key points derived during the session as well as any reflections and findings. Another purpose of the notebooks was to aid the participants' recall when giving feedback on their experience of the PPI programme. Participants were encouraged to bring their notebooks to each session.

Trained peer counsellors from the university facilitated the sessions. The researcher held dress rehearsal sessions with the facilitators before implementing each session. The structured sessions included mini-lectures, feedback, brief exercises, and group discussions. Facilities such as flipcharts displayed the theme and goals of each session as well as key points that the participants could note down. The facilitators also referred to PowerPoint presentations and a programme manual developed by the researcher to guide each session (Appendix J).

The sessions consisted of three main parts: reviewing the previous session and the homework task, discussing the theme of the session and a breakout exercise, and feedback and discussion of the following session's homework task. During each breakout session, the facilitators guided the participants through the exercises. The facilitators also used their discretion to incorporate short energiser games/ icebreaker activities within the session to help elevate the participants' energy. The participants were provided with small snacks and water as refreshments. Participants did not receive any financial incentives for taking part in the programme. However, at the end of the programme, participants received a certificate of attendance indicating that they had successfully completed the programme.

The programme focused on the following sessions titled: (1) Introduction to the Positive Psychology programme; (2) Introduction to Positive Emotions and the topic of Gratitude; (3) Introduction to Engagement and the topic of Strengths; (4) Positive Relationships; (5) Dealing with stress; (6) Resilience; (7) Meaning. A brief description of the intervention sessions is presented in Table 2.

Table 2

Description of each of the sessions offered in the PPI programme for First-Year students

Week	Theme/ Positive Psychology Construct	Objectives	Session Content	Activities
1	Introduction to Positive Psychology	Establish rapport among the participants Understand the foundation of the PPI programme	Getting acquainted and the format of the programme Setting group norms, discussion on confidentiality Introduction to Positive Psychology	-Within-session exercise: Mindfulness activity to focus on the present -body scan (Brunzell et al., 2016; Rogers & Maytan, 2019) -Homework task: Daily practice of the mindfulness activity
2	Gratitude	Understand the role positive emotions play in improving our well-being Understand the benefit of practising gratitude	Introduction to the concepts of Positive emotions and gratitude	-Within session Exercise: The “three good things” exercise -but keeping it specific (Lyubomirsky et al., 2005) -Homework task: The three good things exercise
3	Strengths	Understand the value of knowing one’s strengths	-Introduction to the concept of Engagement	-Within session Exercise: Identifying strengths exercise
4	Positive Relationships	Identify one’s strengths Understand the value of positive relationships Identify ways to build and deepen positive relationships	Identifying strengths -Introduction to the concept of Positive Relationships -Active constructive responding (Gable, 2013) -Introduction to Prosocial behaviours	-Homework task: Utilising strengths -Within session Exercise: Positive Feedback Exercise -Homework task: Act of Kindness

5	Dealing with stress	Understand what stress is, different signs of stress Identify different signs of stress Identify ways to cope with stress	-Defining stress -Identifying signs of stress -Ways to deal with stress -Dealing with Automatic Negative Thoughts	-Within session exercise: Getting rid of Automatic Negative Thoughts -Homework Task: Incorporating an activity that helps them cope with stress and relax
6	Resilience	Understand the meaning of Resilience Understand how to develop resilience	-Describing resilience -Developing resilience	-Within-session exercise: Growth mindset -Homework Task: My life history of success
7	Meaning	Understand the value of a meaningful life Identify own values	- Introduction to the concept of Meaning and Values - Feedback and Evaluation of Sessions	-Within-session exercise: Identifying values Goal setting -Homework Task: Implement a meaningful activity every day

5.5.4 Data analysis

5.5.4.1 Quantitative data analysis. Post Phase I data collection, a coding list was created to identify participants numerically. Biographical information was then converted into quantitative data to create distinct categories. The reliability of the measuring instruments was also determined. Quantitative data collected during phase I were analysed using the statistical software SPSS (Version 29, 2022) to determine the incidence of well-being of the sample of first-year students ($n=234$) and during Phase III to determine differences post-intervention ($n=68$).

Descriptive and inferential statistical analyses were performed to analyse Phase I and III findings. Descriptive statistics (such as means and standard deviation) were used to report the overall samples' characteristics. The Wilcoxon Signed Rank test was used to determine whether there were significant differences between the pretest and posttest scores of the intervention group and the pretest and posttest scores of the control group. The Shapiro-Wilk test for normality was used to determine whether the scores were normally distributed. Following this test, if any measures did not meet the criteria for normality, the Wilcoxon signed rank test was employed to analyse them. A Mann-Whitney U test was also used to determine whether there were significant differences between the intervention and control groups regarding the outcome measures. The quantitative data results are discussed in Chapter 6. This study included an assessment-only control group instead of a wait-list control group. Therefore, following data analysis, the researcher contacted the control group to recommend that they seek student counselling services whenever needed at the university.

5.5.4.2 Qualitative data analysis. Thematic analysis (Braun & Clarke, 2006) was used to analyse the transcribed semi-structured interviews conducted in phase III of the study. Clark and Braun (2013, p. 175) defined thematic analysis as "a method for identifying themes and patterns of meaning across a dataset in relation to a research question." In this study,

thematic analysis was suitable for analysing the participants' experience of the PPI programme and the aspects of the programme that contributed to their well-being.

Thematic analysis has been described as a flexible method (Clarke & Braun, 2018; Terry et al., 2017) when analysing qualitative data, as it can be used within various theoretical frameworks and with a broad range of data types. Braun and Clarke (2019) posited that with this flexibility, what was also key was that the researcher reflectively engaged with the data. The flexibility of the approach also extends to how the researcher approaches data analysis. For instance, a researcher may adopt an inductive and/or deductive orientation when coding the data.

This study followed an inductive approach where codes were developed from the data ('bottom up') to arrive at themes of the participants' experiences and aspects contributing to their well-being. However, a deductive orientation was also applied to address the study's research questions as the PPI programme was developed based on the PERMA model of well-being, and some of the data was linked to the existing PERMA pathways. A codebook was developed to help with consistent coding during the deductive analysis, providing definitions and examples of the PERMA facets (Appendix E).

The six stages of thematic analysis, as suggested by Braun and Clarke (2006, 2013, 2019), were used to analyse the data and are outlined below:

- Stage 1: Reading and becoming familiar with the data. The researcher and an external research associate conducted the interviews. Thereafter, the researcher transcribed the audio recordings, which helped with familiarisation with the data. The researcher then read and re-read the transcripts to immerse themselves in the data and start taking notes of things of interest. Familiarisation is an active process where the researcher starts "...to think about what the data mean." (Braun & Clarke, 2013, p. 205).

- Stage 2: Generating initial codes. The researcher manually allotted tentative codes to data segments that described the same content and were related to the research question. This process began the researcher's systematic organisation of the data. An external academic scholar competent in qualitative analysis reviewed the transcripts and the codes to ensure the reliability of the analysis. The codes were further modified during this process.
- Stage 3: Searching for themes: In this stage, the researcher grouped and analysed the codes into broader sub-themes and themes. This stage involved reviewing the codes to identify meaningful patterns in the data set. Some codes were grouped into semantic-level clusterings, as the meaning in the data was more explicit. In contrast, other codes were grouped into latent-level clusterings, which involved delving deeper into the data to identify underlying ideas (Braun & Clarke, 2013).
- Stage 4: Reviewing themes: The researcher further reviewed the themes determined in stage 3 to ensure they were distinct from each other and comprehensible. Any new themes that more accurately represented the data were noted.
- Stage 5: Defining and naming themes. In this stage, defining the themes allowed the researcher to consider whether each theme had enough depth to stand on its own or whether further revision was needed. Moreover, defining the themes allowed further observation of the narrative surrounding the data extracts. The names chosen were refined to reflect the themes better.
- Stage 6: Producing the report. During this final stage, the researcher compared the findings from the qualitative analysis with what has been found in existing literature on well-being, positive psychological interventions, and programme implementation.

Quantitative and qualitative data were integrated into a report to guide the formulation of a PPI programme that would facilitate well-being among first-year students.

5.5.5.Role of the researcher

In this study, the researcher developed the PPI programme and conducted the data collection, analysis, and integration of data. Before data collection, the researcher simulated the sessions of the PPI programme with peer counsellors from the university and thereafter trained four peer counsellors in facilitating the programme. During phase II of the study, the researcher supervised the trained facilitators and avoided taking on a dual role of both researcher and facilitator, which could influence participants' responses during post-intervention data collection. However, the researcher did engage with the study participants during data collection and contacted them telephonically to invite them to the programme.

5.6 Research Quality

Ensuring the quality of results derived from the analysis process requires the researcher to be cognisant of the factors that may impede the validity and reliability of the results (Creswell, 2014; Creswell & Creswell, 2018). Applying a mixed method design was one way that enhanced the validity of the results (Creswell, 2014). During the quantitative phases of the study, validated measuring instruments were used during data collection. Moreover, the reliability of the measures was determined to confirm internal consistency. As selection bias is a threat to internal validity, it was minimised by matching each intervention group participant with another student in the control group with similar characteristics. This matching also enhanced the quality of the quasi-experimental nature of the study.

History is another potential threat to internal validity and refers to the events occurring between measurement points (Creswell, 2014). There was a lapse between the pre-intervention and post-intervention data collection as the intervention programme was 7 weeks long, and there was an additional 4 weeks where the intervention paused as the participants

sat for their academic exams and went on a semester break. Mid-intervention data collection with a random sample of participants from the intervention and control group was one way to assess if the exam period could influence participants' responses in the quantitative measures.

In qualitative research, validity is often referred to as 'trustworthiness' (Creswell & Creswell, 2018) and various strategies are often employed to enhance this. Trustworthiness includes the following criteria: credibility, confirmability, dependability, and transferability (Lincoln & Guba, 1985; 1989). In this study, the following strategies were employed to ensure the above criteria:

- Triangulation:

Different sources (i.e., measuring instruments and individual semi-structured interviews) were employed to gather data on various individuals and explore well-being and the influence of positive psychological interventions. Data collected and analysed from these various sources enhanced the credibility of the findings. In addition, an independent academic scholar reviewed the transcripts and codes generated during qualitative analysis. This further enhanced the trustworthiness of the themes created during the process.

- Rich descriptions:

This chapter provides a detailed description of the research process, including data collection and analysis methods, to ensure transferability. Moreover, it elucidates the intervention procedure and the role of the researcher. Records were kept to serve as an audit trail and enhance the study's trustworthiness. In addition, chapter 6 describes the rich biographical data of the participants and their detailed experiences of the PPI programme.

- Reflexivity

The researcher's academic background is in psychology, has experience in implementing positive psychological interventions and played a lead role in designing this study's PPI programme, collection, analysis, and interpretation of the data. The researcher has also worked in a higher education setting and is thus familiar with the challenges first-year students often present and how these influence the students' well-being. To counteract any potential bias, the researcher supervised the implementation of the PPI programme but did not facilitate it themselves. Keeping a reflexive diary helped the researcher maintain ethical mindfulness during data collection and analysis.

- Present negative and discrepant information

The researcher highlighted situations where the participants' experiences contradicted a prevalent theme. This ensured the credibility of the findings by reflecting the participants' various perspectives.

5.7 Ethical Considerations

While conducting the study, the researcher was cognisant of the importance of working within ethical boundaries to protect the rights of participants. Before the commencement of the study, the researcher obtained ethical approval from Carl Von Ossietzky, University of Oldenburg's Research Impact Assessment and Ethics Committee (see Appendix F) and from Pwani University's Ethics Review Committee (see Appendix G). The researcher also obtained a research license from the National Commission for Science, Technology, and Innovation (NACOSTI) in Kenya (see Appendix H).

During recruitment, participants were fully informed of the nature of the study and provided with the Participant Information sheet (Appendix B) which detailed information on the purpose and aim of the study. The participants were also informed on the research procedure, privacy, and confidentiality. The researcher obtained written informed consent

from each participant (Appendix C), and there was an emphasis on voluntary participation and that they could withdraw from the study at any time.

Furthermore, the researcher contacted Pwani University's Student Counselling Centre (see Appendix I) to inform them of the study's possible outcomes and to ensure that the students would receive the appropriate help should they require it. Participants were also informed that those exhibiting severe symptoms of depression and anxiety would be excluded from participating in the programme, and the latter were referred to Pwani University's Student Counselling Centre for assistance. The programme participants had autonomy over the day in the week they chose to attend the sessions. This autonomy ensured the programme did not interfere with the student's academic lessons. The trained facilitators were informed of the study and the ethical principles of the programme. Nonetheless, the researcher was always present during the facilitation of the programme to supervise the process.

Anonymity was ensured by assigning code numbers to each participant, and these codes were used in research notes and documents. A list with codes alongside the names of each participant taking part in the study was created and was accessible only to the researcher. The coding list was destroyed once the data analysis was completed. Quantitative data, audio recordings, and transcripts were stored on a password-protected computer. Upon completion and write-up of the research, all raw paper-based data will be safely stored for 10 years.

5.8 Conclusion

The chapter described the study's objectives and provided an overview of the pragmatic research paradigm that informed the multiphase mixed methods design. It also highlights the sampling procedure and the process of implementing the PPI programme. Furthermore, methods of data collection and analysis were outlined, and the researcher's role in the study was described. Finally, the quality of the study and the ethical principles

employed in this study were discussed. The following chapter will discuss the results of this study.

Chapter 6: Results and Discussion of Results

6.1. Introduction

This chapter presents and discusses the results following the analysis of the data. Firstly, the chapter provides an overview of the quantitative results on the incidence of well-being among first-year students (Phase I). The study involved the implementation of the *Flourish Forward Programme*, a positive psychological intervention programme (Phase II). The changes in well-being following the implementation of the programme are also reported (Phase III). Thereafter, the chapter outlines the findings from the semi-structured interviews conducted after the programme. These findings entail the experience of the participants of the programme and their perception of its impact on their well-being. Finally, the quantitative and qualitative findings are discussed and integrated.

6.2. Phase I: Incidence of Well-being and Ill-health (depression and anxiety) among First-Year Students

6.2.1 Descriptive Statistics Related to Well-Being And Mental Ill-Health

Participants completed measures to determine the incidence of well-being (PERMA Profiler, Satisfaction with Life Scale (SWLS)) and symptomatology of mental ill health (Patient Health Questionnaire-9 (PHQ-9) and General Anxiety Disorder 7-item scale (GAD-7)). The participants' demographic information is reported in Chapter 5 (section 5.5.1.3).

The measures were completed approximately two weeks before implementing the Flourish Forward Programme. Table 3 below presents the scales' sample size, means, standard deviations and score range.

Table 3

The incidence of well-being among first-year students before the implementation of the programme

Outcome Variables	N	Mean	Std. Deviation	Observed
				Range
PERMA-O	210	6.59	2.19	0-10
PERMA-P	221	6.42	2.31	0-10
PERMA-E	220	5.94	1.92	0-10
PERMA-R	218	6.25	2.38	0-10
PERMA-M	221	6.96	2.43	0-10
PERMA-A	221	6.55	2.25	1-10
SWLS	214	16.88	6.12	4-35
PHQ-9	214	7.56	6.37	0-29
GAD-7	217	6.00	4.78	0-23

Note. PERMA-O = Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement; PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

According to Kern (2022), the PERMA profiler scores do not have exact cutoffs to determine low to high functioning. Well-being measures tend to be skewed towards the positive; hence, the mid-point is not five but between 6.50-7.90 on a 0-10 scale (Villarino et al., 2021). For the PERMA variables, the participants' reported moderate levels of overall well-being, meaning and accomplishment. However, participants reported low levels of positive emotions, engagement, and perceived positive relationships. Participants also reported slightly below-average levels of life satisfaction. For the PHQ-9 and the GAD-7 scales, the mean scores suggested a mild range for depression severity and a mild range for anxiety severity respectively.

6.2.2. Correlation of Variables

The Spearman's rank correlation analysis was conducted to evaluate the relationship between the variables. As seen in Table 4 below, there were strong positive correlations between the PERMA facets and overall well-being. Life satisfaction was also positively correlated with overall well-being. There were negative correlations between depressive symptoms and anxiety symptoms with the PERMA facets, overall well-being, and life satisfaction.

Table 4*Spearman's Rank Correlation matrix of all Variables*

	PERMA-O	PERMA-P	PERMA-E	PERMA-R	PERMA-M	PERMA-A	SWLS	PHQ-9	GAD-7
PERMA-O									
PERMA-P	0.84***								
PERMA-E	0.57***	0.52***							
PERMA-R	0.75***	0.69***	0.42***						
PERMA-M	0.83***	0.67***	0.44***	0.64***					
PERMA-A	0.78***	0.6***	0.4***	0.52***	0.72***				
SWLS	0.37***	0.38***	0.11	0.34***	0.36***	0.33***			
PHQ-9	-0.41***	-0.47***	-0.16*	-0.4***	-0.32***	-0.36***	-.23**		
GAD-7	-0.36***	-0.42***	-0.17*	-0.31***	-0.34***	-0.35***	-0.18*	0.69***	

Note. PERMA-O = Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement; PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

* $p < .05$, ** $p < .01$, *** $p < .001$

6.3. Phase II: The Incidence of Well-being for the Intervention and Control groups

6.3.1. Demographic Information of the Intervention and Control Groups

A sample was drawn from the overall sample ($n=234$) and invited to participate in the Flourish Forward Programme. The intervention group ($n = 34$) was matched with a control group ($n = 34$) based on their age, gender, and scores on the pre-intervention measures. A chi-square test of independence was performed to evaluate the relationship between the

groups and demographic variables (i.e. gender, age, relationship status and residence type). The confidence interval was set at 95%. The relationship between these variables was not statistically significant. Table 5 below summarises the demographic information of the intervention and control groups.

Table 5*Chi-Square Test For Independence between Demographic Variables (%) and Groups*

Characteristics	Intervention Group	Control group	χ^2	P
Gender			.00	1.00
Male	47.1	47.1		
Female	52.9	52.9		
Age (years)			.11	.742
18-20	82.4	85.3		
21-23	17.6	14.7		
Relationship status			.35	.840
Single	94.1	91.2		
In a relationship	2.9	2.9		
Prefer not to say	2.9	5.9		
Residence Type			.15	.840
On-campus	55.9	60.6		
Off-campus	44.1	39.4		

Note: χ^2 = Pearson Chi-Square

6.3.2. Comparison of Pre-Test Scores between the Intervention and Control Groups

Most of the pre-test scores were not normally distributed. Therefore, a Mann-Whitney U test was conducted to determine whether significant pretest differences were present between the intervention and control groups regarding the outcome variables. The confidence interval was set at 95%. No significant differences were found between the pre-test scores of the intervention and control groups. Table 6 below summarises these results.

Table 6

Descriptive Statistics and Mann-Whitney U Test for Differences between Intervention and Control Group

Outcome variables	Intervention group (n = 34) Mdn	Control group (n = 34) Mdn	U	Z	P
PERMA – O	6.97	7.09	551.5	-.325	.745
PERMA-P	6.49	7.47	554.0	-.295	.768
PERMA-E	7.25	6.25	530.5	-.586	.558
PERMA-R	8.25	7.75	568.5	-.117	.907
PERMA-M	7.5	7.76	554.0	-.295	.768
PERMA-A	6.69	7.30	556.0	-.270	.787
SWLS	18.5	18.0	565.5	-.154	.878
PHQ-9	4.5	5	560	-.222	.824
GAD-7	4	3	515.5	-.772	.440

Note. PERMA-O = PERMA Profiler Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement, PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

6.4. Phase III: Changes in Levels of Well-being and Mental ill-health after the Intervention

6.4.1. Significance of Differences in Well-Being within the Intervention Group after the Intervention

A Shapiro-Wilk's test ($p > .05$) (Razali & Wah, 2011) indicated that several of the scores of the measures were not normally distributed for both the intervention group and the control group. Based on these results, the Wilcoxon signed rank sum test, a non-parametric analysis, was the more suitable approach to evaluate the effect of the programme on the intervention group. The confidence level was set at 95%. Table 7 summarises differences in well-being scores before and after the intervention.

Table 7*Pre-post Wilcoxon Signed Rank Test Results for the Intervention Group*

Outcome Variables	Timepoint		W	Z	p	R
	Pre-test (n= 34) Mdn	Post-test (n = 34) Mdn				
PERMA – O	6.97	8.05	156	-2.23	.026*	0.27
PERMA-P	6.49	8.33	90.5	-2.56	.010*	0.31
PERMA-E	7.25	8.0	151	-2.12	.034*	0.26
PERMA-R	8.25	8.5	159.5	-1.50	.133	0.18
PERMA-M	7.5	8.33	146	-1.55	.122	0.19
PERMA-A	6.69	7.33	149.5	-1.71	.088	0.21
SWLS	18.5	21	122	-2.66	.008**	0.32
PHQ-9	4.5	3	152.5	-1.16	.248	0.14
GAD-7	4	2	81.5	-2.96	.003**	0.36

Note. PERMA-Overall Well-being = PERMA Profiler Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement; PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

* $p < .05$, ** $p < .01$, *** $p < .001$

The Wilcoxon analysis indicated several statistically significant differences in well-being for the intervention group following the intervention. The intervention group's overall well-being was significantly higher following the programme ($Mdn = 8.05$) than before ($Mdn = 6.97$), $z = -2.23$, $p = .026$. The effect size, $r = 0.27$, suggested a small effect size. The intervention group's level of positive emotions was significantly higher after the intervention programme ($Mdn = 8.33$) compared to before ($Mdn = 6.49$), $z = -2.56$, $p = .01$ with a

moderate effect size, $r = .31$. The results also indicated that the intervention group's levels of engagement were significantly higher following the programme ($Mdn = 8.0$) compared to before ($Mdn = 7.25$), $z = -2.12$, $p = .034$, with a small effect size, $r = 0.26$.

The results further revealed that the intervention group's perceptions of positive relationships were slightly higher after the intervention programme ($Mdn = 8.50$) than before ($Mdn = 8.25$) with a small effect size, $r = 0.18$. However, this was not a statistically significant change, $z = -1.50$, $p = .133$. The results also indicated that the intervention group's levels of meaning were higher after the programme ($Mdn = 8.33$) than before the programme ($Mdn = 7.50$) with a small effect size, $r = 0.19$. However, this was also not a significant change, $z = -1.55$, $p = .122$. The pre-post scores also indicated that the intervention group's sense of accomplishment was higher after the programme ($Mdn = 7.33$) than before ($Mdn = 6.69$), with a small effect size, $r = 0.21$. Nonetheless, this was not a significant change, $z = -1.71$, $p = 0.88$.

The intervention group's life satisfaction, as measured by the SWLS, was significantly higher after the programme ($Mdn = 21$) compared to before ($Mdn = 18.5$), $z = -2.49$, $p = .008$ with a medium effect size, $r = 0.32$. There was also a significant decrease in the intervention group's anxiety symptoms, as measured by the GAD-7, following the programme ($Mdn = 2.0$) compared to before ($Mdn = 4.0$), $z = -2.96$, $p = 0.03$, with a medium effect size, $r = 0.36$. The participant's scores on depressive symptoms, as measured by the PHQ-9, were lower following the programme ($Mdn = 3.00$) than before ($Mdn = 4.50$) with a small effect size, $r = 0.14$. However, this was not a statistically significant change, $z = -1.55$, $p = .25$.

6.4.2. Significance of Differences in Well-Being within the Control Group after the Intervention

The Wilcoxon signed rank analyses were conducted to evaluate pre-post differences in the control group. Table 8 below summarises these results.

Table 8

Pre-post Wilcoxon Signed Rank Test Results for Control Group

Outcome Variables	Timepoint		W	Z	P	R
	Pre-test (n=	Post-test (n				
	34)	= 34)				
	Mdn	Mdn				
PERMA – O	7.09	6.28	163	-2.31	.021*	0.28
PERMA-P	7.47	5.84	245.5	-0.88	.374	0.11
PERMA-E	6.25	6.00	165	-1.39	.164	0.17
PERMA-R	7.75	6.25	197	-1.49	.135	0.18
PERMA-M	7.67	5.67	129.5	-2.52	.012*	0.31
PERMA-A	7.30	5.33	157	-2.21	.027*	0.27
SWLS	17.5	18.0	262	-0.33	.741	0.04
PHQ-9	5.00	8.00	125.5	-2.77	.006**	0.34
GAD-7	3.00	7.00	90	-3.26	.001**	0.40

Note. PERMA-Overall Well-being = PERMA Profiler Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement; PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

*p<.05, **p<.01, ***p<.001

The Wilcoxon analysis indicated several statistically significant differences in well-being for the control group after the intervention. For overall well-being, there was a significant decrease in the control group scores post-test ($Mdn = 6.28, n = 34$) compared to the pre-test ($Mdn = 7.09$), $z = -2.31, p = .021$. The effect size, $r = 0.28$, suggested a small effect size. The control group's levels of meaning were significantly lower during the post-test ($Mdn = 5.67$) compared to the pre-test ($Mdn = 7.67$), $z = -2.52, p = .01$ with a moderate effect size, $r = .31$. The results also indicated that the control group's levels of accomplishment were significantly lower ($Mdn = 5.33$) compared to baseline ($Mdn = 7.30$), $z = -2.12, p = .027$ with a small effect size, $r = .27$.

The results indicated that the control group's levels of positive emotions were lower at the post-test ($Mdn = 5.84$) compared to the pre-test ($Mdn = 7.47$), $z = -0.88, p = .374$. Likewise, the control group's levels of engagement were slightly lower after the post-test ($Mdn = 6.00$) compared to pre-test ($Mdn = 7.50$), $z = -1.39, p = .24$. The results also revealed that the control group's perceptions of positive relationships were lower at post-test ($Mdn = 6.25$) compared to pre-test ($Mdn = 7.75$), $z = -1.50, p = .133$. However, the changes in the control group's levels of positive emotions, engagement and perceptions of positive relationships were not statistically significant.

The control group's scores on depressive symptoms, as measured by the PHQ-9, were significantly higher at the post-test ($Mdn = 8.00$) compared to the pre-test ($Mdn = 5.00$), $z = -2.77, p = .006$, with a medium effect size, $r = 0.34$. There was also a significant increase in the control group's anxiety symptoms, as measured by the GAD-7, at post-test ($Mdn = 7.00$) compared to before ($Mdn = 3.00$), $z = -3.26, p = 0.01$, with a medium effect size, $r = 0.40$.

The control group's life satisfaction, as measured by the SWLS, was slightly higher at the post-test ($Mdn = 18$) than at the pre-test ($Mdn = 17$), $z = -0.33, p = .741$. However, this increase was not statistically significant.

6.4.3. Significance of Differences in Well-Being between the Intervention and Control Group at Mid-Intervention

Mid-intervention assessments were administered after the programme's third week to a random sample from the intervention group (n=15) and the control group (n =13). The measures consisted of the same administered at baseline before the intervention. The smaller sample size, compared to pre-intervention, was due to most of the participants' unavailability before the start of the academic exam season. The measures were administered a few days before the start of their academic assessments to assess their well-being levels at this stage. A Mann-Whitney U test was used to determine whether there were significant differences between the scores. The confidence interval was set at 95%. No significant differences were found between the groups on all variables. Due to the smaller sample size, data analysis was restricted to comparisons between the intervention and control groups and not within each group. Table 9 below summarises these results.

Table 9:

Mann-Whitney U test of differences between intervention and control groups at mid-intervention

Outcome variables	Intervention group (n = 15) Mdn	Control group (n = 13) Mdn	U	Z	P	R
PERMA – Overall well-being	7.00	7.00	94.5	-.142	.887	0.17
PERMA-P	7.00	8.00	83.5	-.655	.512	0.08
PERMA-E	6.00	7.00	81.5	-.747	.455	0.09
PERMA-R	7.00	7.00	91.5	-.289	.772	0.04
PERMA-M	8.00	8.00	76.5	-.992	.321	0.12
PERMA-A	7.00	7.00	86.5	-.520	.603	0.06
SWLS	20	21	74.5	-1.06	.288	0.13
PHQ-9	5	5	86.0	-.532	.595	0.06
GAD-7	5	5	80.5	-.792	.428	0.10

Note. PERMA-O = Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement; PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

6.4.4. Significance of Difference In Well-Being between the Intervention and Control

Group after the Intervention

A Mann-Whitney U test was conducted to compare the post-test scores across the different measures for the intervention and control groups. Table 10 below summarises these results.

Table 10*Mann Whitney U-test of differences between groups following the intervention programme*

Outcome variables	Intervention group (n = 34) Mdn	Control group (n = 34) Mdn	U	Z	P	R
PERMA – Overall well-being	8.05	6.28	225	-4.74	<.001***	0.57
PERMA-P	8.33	5.83	276.5	-3.71	<.001***	0.45
PERMA-E	8.00	6.00	255	-3.98	<.001***	0.48
PERMA-R	8.50	6.25	293.5	-3.51	<.001***	0.43
PERMA-M	8.33	5.67	236	-4.20	<.001***	0.51
PERMA-A	7.33	5.33	259.5	-3.91	<.001***	0.47
SWLS	21	18	394	-2.26	.024*	0.27
PHQ-9	3	8	228	-4.31	<.001***	0.52
GAD-7	2	7	183.5	-4.86	<.001***	0.59

Note. PERMA-Overall Well-being = PERMA Profiler Overall well-being; PERMA-P = Scale of Positive Emotions; PERMA-E = Scale of Engagement, PERMA-R = Scale of Relationships; PERMA-M = Scale of Meaning; PERMA-A = Scale of Accomplishment; SWLS = Satisfaction with Life Scale; PHQ-9 = Patient Health Questionnaire – 9; GAD-7 = Generalized Anxiety Disorder 7-item scale

* $p < .05$ ** $p < .01$, *** $p < .001$

The results indicated that the intervention group had significantly higher levels of overall well-being ($Mdn = 8.05$, $n = 34$) than the control group ($Mdn = 6.28$), $z = -4.74$, $p < .001$, with a large effect size $r = .57$. The intervention group also had significantly higher levels of positive emotion ($Mdn = 8.33$) compared to the control group ($Mdn = 5.83$), $z = -3.71$, $p < .001$, with a medium effect size, $r = 0.45$. Further, the intervention group had significantly higher levels of engagement following the programme ($Mdn = 8.00$) compared to the control group ($Mdn = 6.00$), $z = -3.98$, $p < .001$, with a medium effect size, $r = 0.48$.

The results also revealed that the intervention group had a significantly higher perception of positive relationships ($Mdn = 8.5$) than the control group ($Mdn = 6.25$), $z = -3.46$, $p < .001$, with a medium effect, $r = 0.43$. The intervention group also had a significantly higher sense of meaning ($Mdn = 8.33$) than the control group ($Mdn = 5.67$), $z = -4.20$, $p < .001$ with a large effect size, $r = 0.51$. The intervention group also had a significantly higher sense of accomplishment ($Mdn = 7.33$) than the control group ($Mdn = 5.33$) $z = -3.91$, $p < .001$, with a medium effect size, $r = 0.47$.

The intervention group also reported significantly higher levels of life satisfaction ($Mdn = 21$) than the control group ($Mdn = 18$) $z = -2.26$, $p = .024$ with a small effect size, $r = 0.27$. For depressive symptoms, the results indicated that the intervention group's post-test scores ($Mdn = 3$) were significantly lower compared to the control group ($Mdn = 8$) $z = -4.39$, $p < .001$, with a large effect size, $r = 0.52$. Likewise, for anxiety symptomatology, there was a significant decrease in the intervention group's anxiety symptoms ($Mdn = 2$) when compared to the control group ($Mdn = 7$) $z = -4.86$, $p < .001$, with a large effect size, $r = 0.59$.

6.4.5. Correlations between Gender, Residence Type and Overall Well-being after the Intervention

A point biserial correlation analysis was conducted to evaluate the relationship between gender and residence type and the intervention group's overall well-being following the intervention. There was no significant relationship between the participants gender, residence type and overall well-being. Therefore, the participants' gender and residence type did not appear to influence the overall well-being of the participants. Table 11 below summarises these results.

Table 11:

Point Biserial Correlations for Gender and Overall well-being and Residence Type and Overall well-being of Intervention and Control Group

Comparison	n	r_{pb}	95%CI	P
Intervention group				
Gender-Overall well-being	34	-.292	[-.610, .011]	.094
Residence type-Overall well-being	34	.253	[-.083, .595]	.148
Control group				
Gender-Overall well-being	34	-.121	[-.421, .293]	.495
Residence type-Overall well-being	33	.161	[-.189, .519]	.372

Note: r_{pb} = Point biserial correlation coefficient, 95% CI = 95% Confidence interval

6.4.6. Concluding Summary: Quantitative Study Results

The initial phase results revealed that the first-year students' reported moderate levels of overall well-being, meaning and accomplishment. However, participants reported low levels of positive emotions, engagement and perceived positive relationships. The participants also reported slightly below-average life satisfaction and mild depressive and anxiety symptoms.

Following the programme, the intervention group experienced significant improvements in well-being as well as a reduction in self-reported symptoms of depression and anxiety, compared to the control group. The intervention group reported high levels of well-being across all PERMA subscales, with the exception of the Accomplishment subscale. Although there was a trend towards improvement in this subscale, the finding was not statistically significant.

In contrast, the control group reported lower levels of well-being on all PERMA subscales following the intervention. The control group also experienced significant increases in depressive and anxiety symptoms following the programme. The qualitative results are presented in the following section to provide a richer understanding of the changes in well-being experienced by the participants of the intervention.

6.5. Participants Experience of the Intervention Programme

The qualitative phase of the study allowed a deeper understanding of the intervention group's experience of the *Flourish Forward Programme*. Seventeen participants were invited to participate in semi-structured interviews conducted following the programme. These were participants who volunteered to participate in the interviews after completion of the programme. Twelve of these participants were female. The following section presents the qualitative findings. Both deductive and inductive thematic analyses (Braun & Clarke, 2006) were conducted to analyse the qualitative data. The deductive analysis findings highlight the participants' perceptions of the programme's influence on their well-being and are presented according to the PERMA model well-being facets. Table 12 below reflects the themes and sub-themes following the deductive analysis.

Table 12

Main themes and subthemes following deductive analysis of the semi-structured interviews

Deductive analysis	Themes	Sub-themes
Theme 1	Positive emotions	Increased happiness Increased gratitude Increased optimism
Theme 2	Engagement	Discovery and application of strengths Activities in session increased engagement Interventions were a constructive use of time
Theme 3	Relationships	Enhanced interpersonal competence Formed new relationships
Theme 4	Meaning	Increased knowledge and application of values Increased sense of community
Theme 5	Accomplishment	Goal oriented Problem management

The inductive findings further elucidate the participants' perceptions and specific aspects of the programme that contributed to their well-being. Table 13 below presents these findings.

Table 13

Main themes and sub-themes following inductive analysis of the semi-structured interviews

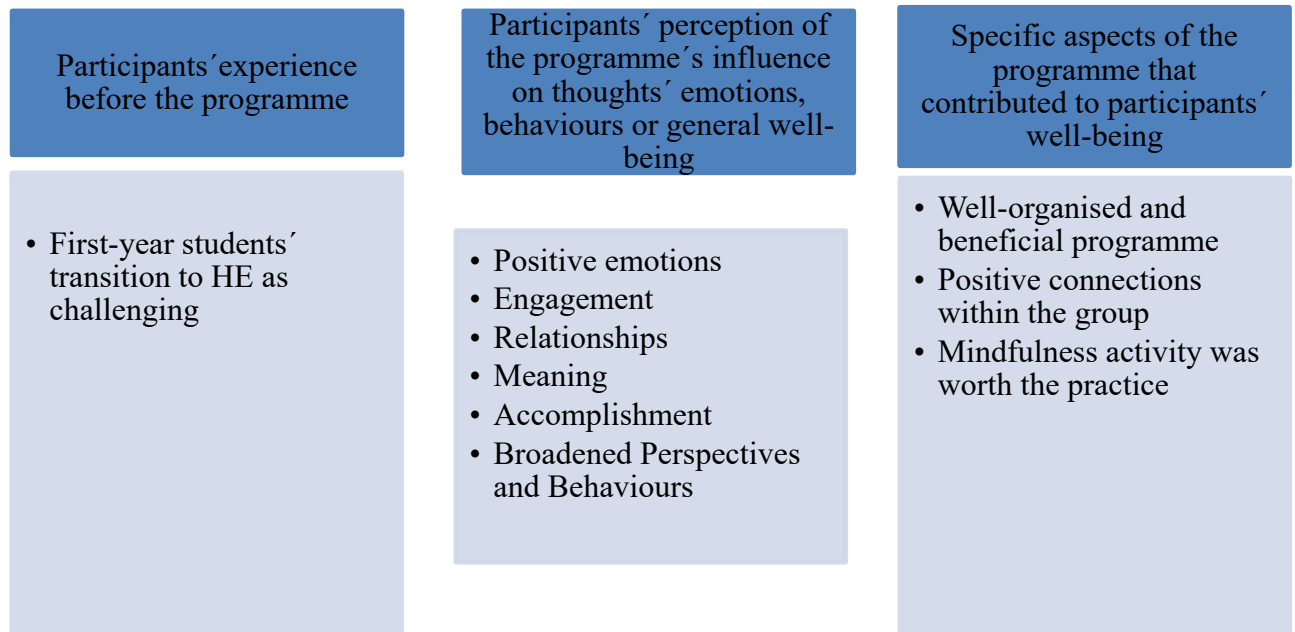
Inductive analysis	Themes	Sub-themes
Theme 6	The first-year student transition process can be challenging	Difficulties building social connections Experiencing negative emotions Struggling with stress
Theme 7	Broadened Perspectives and Behaviours	Embracing different perspectives Enhanced stress management
Theme 8	Well-organised and beneficial programme	Informative and understandable content Flexible and orderly delivery of content Competent facilitators with interpersonal skills
Theme 9	Positive connections within the group	Supportive group environment Interactions enhanced social skills
Theme 10	Mindfulness intervention was worth the practice	Mindfulness activity was more manageable with time Mindfulness activity is beneficial in several ways
Theme 11	Continuation and availing of the programme	Interested in the continuation of the programme Recommend programme to other students
Theme 12	Barriers to engagement in the programme	Challenges related to performing acts of kindness Timing of the programme

6.5.1. Presentation of Qualitative Findings

The qualitative analyses yielded ten themes that answered the main objectives of this phase of the study: participants' experience of the programme, participants' perceptions of the influence of the programme on cognition, emotions, behaviour or general well-being, and specific aspects of the programme that contributed to the participants' well-being. One theme (i.e., Theme 6: *First-year students' transition as challenging*) described the participants' experience before participating in the programme. Six themes (i.e., Themes 1 to 5: *Positive Emotions; Engagement; Relationships; Meaning; Accomplishment*; and Theme 7: *Broadened Perspectives and Behaviours*) represented the participants' perceptions of the programme's influence on cognition, emotions, behaviours or general well-being. Lastly, three themes emerged (i.e., Theme 8: *Well organised and beneficial programme*; Theme 9: *Positive connections within the group*; and Theme 10: *Mindfulness activity worth the practice*) that described specific aspects of the programme that contributed to the participants' well-being. Figure 2 presents a summary of the objectives and the themes that are related to them.

Figure 2

Objectives of the qualitative study and related themes



The themes and sub-themes are detailed as part of the study's objectives. However, two themes (i.e., Theme 11: *Continuation and availing of the programme* and Theme 12: *Barriers to engagement*) emerged that were not explicitly related to the objectives. Selected illustrative quotes are used to support the themes and sub-themes described. The participants are referenced in parenthesis using participant number (e.g. P1 for participant one) and gender (m = male, f = female).

6.5.2. Participants' Experience Before Taking Part in the Programme

6.5.2.1. Theme 6: The first-year student transition process is challenging. A common theme is related to experiencing different challenges in the transition to higher education. From this theme, three subthemes emerged: difficulties with building social connections, experiencing negative emotions, and struggling with stress.

A common concern expressed by participants was difficulties with building social connections and engaging with other students prior to participation in the programme: "I was not used to interacting with people, then at some point, you are told to talk to your neighbour, and you feel like there isn't anyone who wants to start the conversation" (P10f). The participants also reported experiencing negative emotions during this transition process: "Before the programme...I could feel lonely most of the time..." (P14f).

Furthermore, participants expressed feeling stress during this transition phase. Negative emotions were mainly related to experiencing financial struggles, which induced anxiety: "...And there is something that disturbs the mind; stress...you are the one to budget what you are going to eat. Sometimes there is no money..." (P6f).

6.5.3. Participants' Perceptions of the Influence of the Programme on their Thoughts, Emotions, Behaviour or General Well-Being

6.5.3.1. Theme 1: Positive Emotions. A key theme describing participants' perception of the programme's influence on their well-being was the experience of more and varying positive emotions. Three sub-themes emerged: increased happiness, increased optimism, and increased gratitude.

Most of the participants expressed an increased sense of happiness. One interviewee said, "I am better now than how I started; I am feeling just happy" (P14f). Several participants also noted increased gratitude, particularly towards others: "Maybe I never did it before, but I had to change and start appreciating others" (P12f).

Some participants also reported experiencing optimism, which is a positive emotion related to the future:

"...I used to look at myself and say I was just a failure and I could end up being like where I have come from. But I can say that for now, I look at myself and say, "I am me" and I know for sure I am going places" (P8m).

6.5.3.2. Theme 2: Engagement. Another key theme that emerged was the programme's influence on participants' levels of engagement. Three subthemes were related to this theme: the discovery and application of character strengths, the interventions as a constructive use of time, and the interventions contributing to engagement in and out of the sessions.

Several participants expressed learning about their psychological strengths within the sessions. One participant reported, "...I learnt that my strength is about kindness... Most of the time, I like helping other people" (P4f). Participants also indicated that, upon discovering their strengths, they were utilising these strengths in their daily lives:

"...strengths are natural, but if they are not reinforced, you may end up losing some of your strengths. Yet you have them but you cannot perform them practically.... So I have learnt to work on that, how to strengthen those" (P9m)

Engagement was further evident when some participants reported that implementing the PPIs outside of the sessions was generally a constructive use of their time and that they found themselves engaged in the PPIs: "...through those homework tasks, I was able to recover the time I would have used in things that were not constructive. And they (homework tasks) kept me busy from the things that could not help me" (P8m)

Several participants also associated the PPIs with increased levels of engagement when participating in the programme: "...most of the activities we used to do, they involved the body or part of the mind. And it makes you wake up and continue being active in the session" (P6f). The increased levels of engagement noted by participants were also reflected in their academic engagement: "Now, after attending those sessions, I feel like the stress is over, and I can settle in my books" (P14f).

6.5.3.3. Theme 3: Relationships. The findings indicated that positive relationships were a key theme associated with the participants' improved well-being after participating in

the programme. Two subthemes emerged from this theme: enhanced interpersonal competence and forming new relationships.

Several participants ascribed their improved well-being to their enhanced interpersonal competence. They reported feeling more equipped to engage positively in social situations outside the programme:

“I learnt that for you to keep friends... you should respond in a positive way. Because through that it will help you; it will not let kill the discussion. It will let the discussion continue. But if you respond in a negative way, it will kill the discussion” (P4f).

In addition, some participants also reported forming new relationships as an added benefit of engaging in the programme:

“But after being taught on how to create a positive relationship and how to handle or manage it, I was able to build on more friendships or relationships and to do so without negatively influencing the relationships I had with others.” (P13f)

6.5.3.4. Theme 4: Meaning. The programme also promoted participants' well-being through an increased sense of meaning. Participants reported this through sharing their increased awareness and application of values: “I got to know the values which I possess and learn more about them” (P12f). In addition, the participants acknowledged understanding how to apply their values: “...I am able to know my values and how those values can help those who I am related to...” (P8m).

In addition, the participants reported that the programme promoted an increased sense of community and a desire to engage in compassionate acts. One participant (17f) commented, “It made me feel that feeling of helping other people.” Another participant echoed the above sentiment: “...there was that urge to help needy people or helping orphaned children. There was that mood” (P3m);

6.5.3.5. Theme 5: Accomplishment. Participants expressed that participating in the programme also resulted in an increased sense of goal-directedness. One participant shared, “...it also helped me to work hard or to have that hope that I can achieve this calling. Now I see a light in achieving my call” (P3m).

Some participants also reported gaining problem-solving skills through the programme: “It helped me in solving some life problems. Because there are different situations that we encounter in life. The programme helped me realise a lot about how to tackle them.” (P6f).

6.5.3.6. Theme 7: Broadened Perspectives and Behaviours. Another theme identified through inductive analysis and reflecting participants' perception of the programme's influence on their well-being was ‘broadened perspectives and behaviours’. Two sub-themes that emerged included embracing different perspectives and enhanced stress management.

The participants remarked on how the programme had allowed them to embrace different perspectives, including how they perceived challenges:

“...We were taught about changing a challenge to be a possibility. So, my thinking has somewhat been challenged, when I am faced with a challenge, to not only see the negativity of it, but to come out with a positive answer to it” (P8m).

Participants also expressed that they could view their lives in a different light:

"Because I changed a lot, my view about life, my view about other people, my view about feeling embarrassed about some issues. It helped me to gain that confidence...and realising that I am not the weakest person in this world" (P14f).

The participants also reported that the programme helped them learn different ways to manage stress:

"Now I can sit with my friends, at least I can share what I am feeling. At least I can know where I can find my help whenever I feel stressed out other than sitting in a place where I cannot find any help" (P1f)

6.5.4. Specific Aspects of the Programme that Contributed to Participants' Well-Being

6.5.4.1. Theme 8: Well-organised and beneficial programme. A key theme that reflected specific aspects that enhanced participants' well-being was their expression of the programme as well-organised and beneficial. Three sub-themes were related to this theme: informative and understandable content, flexible and orderly delivery of content, and competent facilitators with interpersonal skills.

The participants expressed that they found the programme's content informative and understandable: "...in every session, I learnt something new, I learnt a new activity that will help me in my life" (P14f). The participants could grasp the sessions' content and follow along: "The content was not too challenging, and neither was it too easy, but I think we all understood it and we all learnt" (P12f).

As a session in the programme would be offered several times a week, participants could choose a day that worked best for them to attend the sessions. Participants expressed how they valued that each session was offered multiple times in the week:

"... I think an alternation, maybe Tuesday, Thursday, Friday was good, because you find that when you just say that "Thursday I will be present", you find that the teacher has said, "Let us meet at that time". So I just have to come on Friday instead" (P11m).

Several participants also remarked that they found the delivery of the programme content orderly: "The way the sessions were arranged, it was flowing. Because you find that the previous session and the coming one, they are almost related..." (P12f).

The participants also regarded the facilitators (the trained peer counsellors) as competent in the delivery of the programme: "...They were good. They delivered the content

very well and they were able to express and explain everything in a way that you can understand. They used to bring out the ideas well." (P6f).

The participants also expressed valuing the facilitators' interpersonal skills regarding how they related to the participants: "They were welcoming. They were friendly. They knew exactly how to read every person's feelings. I loved the way they incorporated an attitude of being comforting or advising" (P13f).

6.5.4.2. Theme 9: Positive connections within the group. Another key theme that emerged was positive connections within the group. Two sub-themes were related to this theme: self-disclosure amongst participants and interactions enhancing social skills.

The participants reported enjoying the group interactions within the programme, which allowed for self-disclosure:

"...When we came there, no one knew the other person, we were all new. But as time goes by, you are able to know their names, what they like, what they dislike, or how they do things, or what is on their mind. It was interactive and nice..." (P6f).

These interactions were beneficial in that they gave the participants a chance to learn from each other's experiences: "...despite the challenges in our weekly or daily activities, I got encouraged that through sharing them in that session, it will enable me to get solutions to them..." (p13f).

Another added benefit of the group interactions, as reported by several participants, was the enhancement of social skills:

"...I found my confidence improving. Because at first, I could not have the guts to speak amidst people. But as I attended each occasion, I got to talk amidst people...with that frequent continuous talking, I got to have the courage to talk..." (P13f).

6.5.4.3. Theme 10: Mindfulness intervention was worth the practice. Another aspect of the programme that stood out for the participants and contributed to their well-being

was the "Body scan," a mindfulness intervention that several participants reported to be worth implementing. Two sub-themes related to this theme are that mindfulness intervention becomes easier with time and is beneficial in several ways.

Engaging in the mindfulness intervention, despite being challenging initially, was easier to implement with practice: "... the session which was at first challenging was about the body scan. First, I had the thought that maybe it won't work. But after practicing it, it worked." (P11m).

The participants also expressed that the mindfulness activity was beneficial in several ways. For instance, some engaged in it when they wanted to relax: "...because when you are tired and you want to relax and you have learnt about the body scan, you can do that..." (P12f).

Some participants also reported that performing the body scan helped them to manage feelings of anxiety:

"...sometimes you enter the exam and you feel tense, maybe you feel you are not well prepared. Or maybe you don't know how the exam will be, maybe it will be hard. So, the body scan helped me to relax..." (P10f).

6.5.5. Additional Emerging Themes

6.5.5.1.Theme 11: Continuation and availing of the programme. Several participants reported that they were interested in continuing the programme: "I think the experience, being that it was helpful, then the sessions should be continued...so that we get to come again for such occasions" (P13f).

Participants also recommended that the programme be made accessible to other students in different academic levels: "I think it would be better if a lot of people, not only first-years actually, but generally in the campus, that programme would be helpful if the rest were also taught about it" (P14f).

6.5.5.2. Theme 12: Barriers and future considerations. Some participants also shared their barriers during the programme and future considerations. Two sub-themes emerged: challenges related to performing acts of kindness and the timing of the programme.

Several participants reported performing acts of kindness as recommended during the programme. However, some participants reported experiencing barriers related to performing this intervention, such as facing scepticism from others: "...and at times maybe when you go to help someone by the roadside...they will look at you as if...you have a hidden agenda in that" (P8m).

Another challenge with performing these acts was needing more resources to share with others. In this regard, performing acts of kindness was viewed as a costly endeavour: "...Especially now you are a student, not all of the time do you have something to share, whatever you get is just for you." (P10f)

Furthermore, some participants reported that performing acts of kindness could sometimes be taken for granted by the recipient of the acts: "...maybe you are with your friend, and you are doing all parts of the housework, and your friend starts relaxing; maybe he has gotten used to you doing this. Now you reach an extent where you feel, "I better leave this work" (P3m).

Several participants reported that despite each programme session being offered several days a week, offering the sessions at different times would have been beneficial. Some students reported they would have preferred extra sessions in the day as options. For instance, one participant recommended that the sessions be offered in the morning hours: "...since the programme is scheduled to be happening in the evening hours, then you find that some people have their free lessons in the morning hours...maybe if there is this opportunity that can be created for others who fail to attend...to be fixed in the morning..." (P13f)

6.5.6. Concluding Summary: Qualitative Study

The participants of the interviews expressed that they had experienced challenges related to transitioning to higher education before joining the programme. However, participants related improvements in all the PERMA facets following the programme. In addition, they reflected on the programme's structure, content, facilitators, and positive social connections as contributing to their well-being. However, participants also noted a barrier in implementing an act of kindness intervention that could negatively affect their well-being and would need to be considered in future programmes. The interviewees also added that the programme's continuation would be ideal. They also expressed that the facilitators should consider offering the sessions multiple times daily to accommodate more students. The following section further discusses the findings of the study.

6.6. Discussion of the Findings in Relation to the Aims of the Study

The following section discusses the findings of the study according to the two main research questions: 1) What changes occur in first-year students' well-being after participating in a positive psychological intervention programme, and 2) How did the participants experience the positive psychological intervention programme?

To answer the first question, the following sections discuss the incidence of well-being and mental ill-health among first-year students and the changes in the participants' well-being levels following the programme. Subsequently, the results obtained from the interview process conducted after the programme are discussed to address the second question. This encompasses the participants' experiences after taking part in the programme, participants' perceptions of the influence of the programme on their thoughts, emotions, behaviour or general well-being, specific aspects of the programme that contributed to their well-being, and additional emerging themes.

6.6.1. Incidence of Well-Being And Mental Ill-Health (Depression And Anxiety) in First-Year Students

The first aim of the study was to determine the incidence of well-being and symptoms of mental ill-health (depression and anxiety) among first-year students. The incidence of well-being was measured with the PERMA Profiler and Satisfaction with Life scale (SWLS), while depressive and anxiety symptoms were measured with the Patient Health Questionnaire-9 (PHQ-9) and the Generalized Anxiety Disorder 7-item scale (GAD-7), respectively. The section below discusses the participants' demographic characteristics and the results of the measures above.

6.6.1.1. Demographic Information. Most participants were between “18 and 20” years old and reported being single, which can be expected for first-year students in higher education. Most students reported that they did not engage in substance use. This finding is contrary to previous studies which have suggested that many first-year students engage in substance use mainly to alleviate negative emotions associated with the transition to higher education (Auerbach et al., 2018; Single et al., 2019).

Most students reported knowing the university's religious or spiritual support services. Higher educational institutions in Kenya often encourage students to be affiliated with religious groups (Mugambi, 2023). However, as the students were in their first semester of academic studies, they may still have needed to become familiar with all the other services offered within their institution. An awareness of the services available to the students may assist them in adjusting to their new environment (Tett et al., 2017).

In addition, most students reported that they could not comfortably meet their financial needs. It has been noted in other studies that financial difficulties can be a stressor for transitioning students and influence their adaptation to university life and the well-being of students (Hassel & Ridout, 2018; Pretorius & Blaauw, 2020).

6.6.1.2. Incidence of Well-being and Mental ill-health. The participants' reported moderate levels of overall well-being, meaning and accomplishment. However, the participants' reported low levels of positive emotions, engagement, and perceived positive relationships. The researcher was unaware of studies specifically evaluating first-year higher education students' well-being using the PERMA profiler. However, previous studies using the WHO-5 well-being index found that first-year students reported low levels of well-being (Slykerman & Mitchell, 2021; Szepe & Meszaros, 2024). Students' well-being can also decrease over time when they struggle to adapt to the higher education environment (Onyango & Birech, 2024).

The findings indicated that the first-year students' life satisfaction was slightly below average. Life satisfaction is based on one's cognitive evaluation of one's life (Diener et al., 2018). Navigating expectations from lecturers and parents, increased responsibilities, and experiencing academic demands could have influenced the students' life satisfaction (Onyango & Birech, 2024).

The participants' mean score for the PHQ-9 suggested a mild range for depression severity. Their mean score for the GAD-7 also suggested a mild range for anxiety severity. Contrary to this study, prior studies have indicated higher severity of depressive and anxiety symptoms among first-year students (Bassols et al., 2014; Brandy et al., 2015; Duffy et al., 2020; Islam et al., 2022; Othieno et al., 2014). First-year students tend to experience a range of stressors, including leaving familiar communities, financial concerns and academic pressures (Ndegwa et al., 2020). Thus, despite the low severity levels of depressive and anxiety symptoms reported in this current study, first-year students are vulnerable to developing psychological distress in their academic journey.

6.6.1.3. Correlation of Variables. There were strong positive correlations between the PERMA facets, overall well-being, and life satisfaction. In addition, there were negative

correlations between depressive and anxiety symptoms with the PERMA facets, overall well-being, and life satisfaction. These findings were consistent with those of other studies (e.g., Butler & Kern, 2016; Pezirkianidis et al., 2021).

6.6.2. Incidence of Well-Being and Mental Ill-Health for Intervention and Control Group

The study sought to investigate whether the implementation of PPIs had an effect on the first-year students' levels of well-being and symptoms of mental ill-health (depression and anxiety). The following section discusses the results of the mid-assessments administered after the programme's third week to a random sample (n=28) from the intervention and control groups. Thereafter, the section discusses the results of the post-assessments of the intervention and control group following the completion of the programme.

6.6.3. Levels of Well-being and Mental Ill-health at Mid-Intervention

No significant differences were found between the intervention and control groups regarding overall well-being, the PERMA variables, life satisfaction, depressive, and anxiety levels. This suggests that the intervention programme did not have a significant effect on the participants' well-being at mid-intervention. A potential reason might be that it was still too early in the intervention to observe any changes in well-being. The measures were administered a few days before participants' took their academic exams to examine if the upcoming exams would affect their well-being and mental health. However, this did not appear to be the case as both groups reported moderate levels of overall well-being and average satisfaction levels indicating that they were generally satisfied with their lives. Both groups reported mild depressive and anxiety levels.

6.6.4. Levels of Well-Being and Mental Ill-Health after the Intervention Programme.

6.6.4.1. Overall well-being. The results indicated a statistically significant improvement in the intervention group's overall well-being compared to the control group immediately after the programme. This difference was also strongly practically significant

with a large effect size. There was also a statistically significant increase in the intervention group's overall well-being over time. These results were consistent with existing studies which reported the effectiveness of MPPIs in improving the well-being of university students (Chen et al., 2024; Dorri Sedeh & Aghaei, 2024; Krifa et al., 2022; Morgan et al., 2023; Smith et al., 2023). For instance, Hood et al. (2021) found that first-year students in a UK university who took part in a positive psychology course reported greater mental well-being ($p < .001$) than the waiting list control group.

However, the majority of the prior studies did not focus mainly on first-year students' well-being but evaluated higher academic levels (e.g., Dorri Sedeh & Aghaei, 2024; Krifa et al., 2022; Morgan et al., 2023; Yang et al., 2024; Zhang et al., 2020). The current study, therefore, adds to the literature mainly focusing on first-year students' well-being. Moreover, this current study's finding of increased well-being is in accordance with prior studies in HE settings that based their intervention programmes on Seligman's (2011) PERMA model of well-being (e.g., Morgan et al., 2023; Smith et al., 2021; Yang et al., 2024). Thus, the present study extends the understanding of the influence of such programmes, particularly in the context of universities within sub-Saharan Africa.

6.6.4.2. Positive Emotions. There was a statistically significant increase in the intervention group's positive emotions following the programme compared with the control group, with a moderate effect size. The intervention group's positive emotions significantly increased after the programme with a small effect size. These findings are consistent with prior literature supporting using PPIs to enhance positive emotions immediately after implementation (e.g., Dorri Sedeh & Aghaei, 2024; Kounenou et al., 2022; Lambert et al., 2022; Moskowitz et al., 2021; Sheldon & Lyubomirsky, 2006; Smith et al., 2021). The literature also indicates that incorporating PPIs into one's daily life allows the maintenance of these positive emotions (Morgan et al., 2023; Sheldon & Lyubomirsky, 2021). This possibly

explains the boost in positive emotions reported after the programme. The Flourish Forward Programme encouraged sustained effort in the activities by encouraging the intervention group to share their experiences implementing them and reflect on ways to incorporate them into their daily lives.

6.6.4.3. Engagement. The intervention group's engagement levels increased significantly compared to the control group with a moderate effect size following completion of the programme. There was also a significant increase in the intervention group's engagement levels across time with a small effect size. Prior studies have reported similar findings (Dorri Sedeh & Aghaei, 2024; Smith et al., 2021). However, in Morgan et al. (2023), levels of engagement did not change significantly following the programme, though participants reported in the qualitative findings feeling engaged. In this current study, the programme was implemented in the first semester, and participants were introduced to strategies to help them become focused and dedicated to their studies. In contrast to the current study, participants in Morgan et al. (2023) study were in their second semester when the programme took place. The authors highlighted that the students were probably already focused on their studies compared to their first semester, which led to no significantly reported changes in engagement.

6.6.4.4. Relationships. There was a significant increase in the intervention group's perception of positive relationships compared to the control group following the programme with a moderate effect size. Similar results have been found in other studies where PPIs increased participants' perceptions of positive relationships in educational settings (e.g., Dorri Sedeh & Aghaei, 2024; Leskisenoja & Uusiautti, 2017; Morgan et al., 2023; Smith et al., 2021). This indicates that the programme contributed to the participants forming social relationships. The current study showed a trend towards improved relationships in the intervention group across time, although this result was not statistically significant. A

possible reason for this was that the first-year students were beginning to form social connections as they were still acclimatizing to the new higher education environment (Okita, 2024).

6.6.4.5. Meaning. The intervention group's sense of meaning was also significantly higher following the programme than the control group's, with a large effect size. The findings are in accordance with prior studies that reported increased levels of meaning in students following the implementation of PPIs (e.g., Dorri Sedeh & Aghaei, 2024; Morgan et al., 2023; Smith et al., 2021). Participants were encouraged to engage in activities beyond their self-interest, such as acts of kindness, and explore their values, which may have contributed to a greater sense of meaning or purpose (Aloka et al., 2024). There was a trend towards an improved sense of meaning in the intervention group over time, though this was not statistically significant. A plausible reason could be that as the intervention group was in the beginning phases of the HE academic journey, they were still mapping out their values and building a sense of community to enhance their sense of meaning.

6.6.4.6. Accomplishment. There was a statistically significant increase in the intervention group's sense of accomplishment compared to the control group following the programme. Similar findings were reported in recent studies investigating the effect of PPI programmes on students' well-being (e.g., Dorri Sedeh & Aghaei, 2024; Smith et al., 2021). The programme sessions included stress management and resilience, which may have enhanced their problem-solving skills, leading to an improved sense of accomplishment. Accomplishment includes a sense of progress towards one's valued life and not only the feeling of having prevailed in a task. This is vital for first-year students to help them persevere when facing challenges in their transition to university life (Aloka et al., 2024). There was a trend to improved accomplishment in the intervention group across time, though this result was not statistically significant.

6.6.4.7. Life Satisfaction. The intervention group reported significantly improved life satisfaction compared to the control group following the programme with a small effect size. The intervention group's life satisfaction significantly increased following the programme with a medium effect size. These findings coincide with prior studies that report increased life satisfaction after implementing PPIs (e.g., Armenta et al., 2022; Goodmon et al., 2016; Zhang et al., 2020). As students' coping strategies have been found to correlate with their life satisfaction (Cabras & Mondo, 2018), the programme possibly helped the participants manage stressors encountered in their transition to higher education.

6.6.4.8. Depressive Symptoms. The participants' self-reported depressive symptoms were also significantly lower at the post-test compared to the control group, with a large effect size. PPIs focus on improving well-being and have also been found to be effective in alleviating depressive symptoms (e.g., Appiah et al., 2020; Gander et al., 2016; Morgan et al., 2023; Pan et al., 2022; Wen et al., 2020). The Flourish Forward Programme included acts of kindness and gratitude interventions which have been found to decrease depressive symptoms in participants (Mongrain et al., 2018; Tolcher et al., 2024). Moreover, Fredrickson et al. (2000) "undoing hypothesis" posits that the experience of positive emotions can contribute to undoing the effects of negative emotions. The current study showed a trend towards decreased depressive symptoms in the intervention group across time, though this result was not statistically significant.

6.6.4.9. Anxiety Symptoms. The intervention group's self-reported symptoms of anxiety were also significantly lower at post-test compared to the control group's levels with large effect sizes. The intervention group's anxiety levels significantly decreased after the programme, with a large effect size. Prior studies have reported the efficacy of PPIs in decreasing anxiety levels (e.g., Khanjani, 2017; Zhang et al., 2020). Hendriks et al. (2020) meta-analysis of MPPIs reported similar findings where non-Western countries reported

larger effect sizes for anxiety compared to Western countries. The programme included a mindfulness activity, which may have contributed to the significant decrease in anxiety symptoms. Though transitioning into the first year of higher education can be anxiety-inducing for many students, implementing mindfulness activities has been shown to help students have a smoother transition (Dvořáková et al., 2017).

6.6.5. Participants' Experience Before Joining the Programme

The study also sought to explore participants' experiences of the transition to higher education before joining the programme, through semi-structured interviews following the programme. The participants reported a prevalent experience related to the challenges of building social connections and experiencing negative emotions and stress before joining the programme. The participants' experience coincides with previous literature indicating that first-year students tend to struggle with building social connections (Mason, 2019; Nyar, 2020) and often experience stress during this time as they navigate the new HE environment and take on more responsibilities (Adams et al., 2016; Denovan & Macaskill, 2017). Financial stress, in particular, is a significant concern that has been shown by previous studies (Heckman et al., 2014; Moore et al., 2021) to affect students' social and academic integration..

6.6.6. Participants' Perceptions of The Influence of the Programme on their Thoughts, Emotions, Behaviour or General Well-Being

Following the programme, participants reported increased positive emotions related to the past and present (gratitude and happiness) and the future (optimism). Participants were encouraged to implement a gratitude intervention (3 Good Things), which has been found to boost happiness (Mongrain & Anselmo-Matthews, 2012). Positive emotions have been found to promote psychological and physical well-being (Nguyen & Fredrickson, 2017). The upward spirals of positive emotions contribute to improved interpersonal connections, which

also lead to more positive emotions (Pezirkianidis et al., 2021). Thus, the social connections formed in the programme may have also contributed to the positive emotions.

The participants also expressed the discovery and use of their character strengths daily. Character strengths are trait-like qualities evident in one's cognitions, feelings and actions (Selvam, 2015). Applying one's character strengths may revitalise individuals and increase students' engagement (Churu & Selvam, 2020; Mason, 2019). Participants also reported that implementing the interventions was a constructive use of their time and that the interventions themselves also contributed to their engagement levels. This could be attributed to having multiple PPI activities that piqued their engagement (Schueller & Parks, 2014).

As Churu and Selvam (2020) highlighted, young adulthood provides an opportune time for exploring character strengths within higher education as these students experience more independence and less supervision from parents and teachers. The programme contributed to behavioural (i.e., participation in tasks) and cognitive (i.e., focused) engagement described by Kern (2022). The activities may have helped the first-year students feel grounded in the new environment as they established their routines.

However, regarding psychological engagement, participants did not describe the flow state where one is completely immersed in an activity (Nakamura & Csikszentmihalyi, 2014). Kern (2022) indicated that it may be challenging for individuals to consistently attain a state of flow within an education setting without distractions. Therefore, the participants possibly reported more on behavioural and cognitive engagement than being in a flow state.

The participants also expressed that the programme enhanced their interpersonal competence and that they were able to form new relationships with other students. In this study, participating in a group program allowed the first-year students to connect with others who could relate to them and offer support during their first-year experience. As struggling with loneliness is a common challenge that first-year students tend to experience (Richardson

et al., 2017a), being part of a supportive group may have helped counter this challenge. In addition, the intervention group was introduced to activities such as Active Constructive Responding (Gable & Reis, 2010; Gable et al., 2018), which allowed them to practice skills within the group that could enhance their interpersonal relationships.

Furthermore, the participants' expressed that the programme helped them to become aware of and apply their values. Gamage et al. (2021) argue that acquiring values in a student's personal and academic life is essential as they act as guiding principles and influence the larger human community. Makola (2015) found that a high sense of meaning in first-year students could also predict long-term achievement in higher education. However, this study did not assess the correlation between participants' academic achievement and sense of meaning. In other studies, participants also reported an elevated sense of community tied to an increased sense of meaning (Mason, 2013; Morgan et al., 2023). By participating in the Flourish Forward Programme, first-year students likely gained a better understanding of the higher education environment while experiencing a sense of community that enhanced their sense of meaning.

Participants reported an increase in goal-directedness and the development of problem-management skills following participation in the programme. According to Kern (2022), accomplishment can be defined subjectively and objectively. Subjective accomplishment refers to the participants' perception of their goal-directed behaviour, whereas objective accomplishment relates to tangible outcomes such as academic achievement. Thus, the participants' reports aligned more with subjective accomplishment than objective accomplishment despite the students having academic assessments in the middle of the 7-week programme. A possible reason could be that despite completing academic assessments within their first academic semester, the students needed other assessments to compare their academic progress. Morgan et al. (2023) found similar results

where university students who participated in a PPI programme reported more on their subjective achievements. However, in Morgan et al. (2023) study, the participants were unaware of their academic results post-measurement.

The participants also reported an improved ability to manage stress levels. The programme participants were encouraged to explore various ways of managing stress, which may have resulted in the reported increase in life satisfaction by better handling stressors encountered in their first-year experience. In addition, the broaden-and-build model of positive emotions (Fredrickson, 2004, 2013) suggests that these emotions facilitate broadened thinking, which contributes to building personal resources and adaptive actions. Thus, the experience of positive emotions promoted by the programme may have also contributed to the growth of participants' social, physical, psychological and intellectual resources, enabling them to take more adaptive actions to deal with stressors.

6.6.7. Specific Aspects of the Programme that Influenced Participants' Well-being.

It was also important to ascertain participants' perceptions of the programme and the aspects they attributed to their well-being. The participants reported that engagement in the programme contributed to embracing different perspectives. A plausible reason may be because the programme introduced various concepts within positive psychology, such as resilience, and promoted a growth mindset suggesting skills and strengths can be developed (Dweck, 2006). In addition, participants were encouraged to share their experiences of implementing the PPIs within the group sessions. This interaction and disclosure may have enabled the participants to consider a range of viewpoints from their peers, leading them to adopt different perspectives and actions.

Participants also expressed that they valued the content and delivery of the programme. The content was tailored to relate directly to the first-year students' experiences. It was delivered in an understandable format, allowing the participants to practice and reflect

on the PPIs. They were also encouraged to discuss ways to apply what they learnt daily. Donaldson et al. (2021) systematic review also emphasised that PPIs tend to be more effective when there are opportunities for the participants to "learn, practice, reflect, relate, and plan" (p.11). In addition, the PPIs were feasible and could easily be incorporated into participants' daily lives to yield better outcomes (Lyubomirsky & Layous, 2013). Thus, the programme's structure, which included within-session exercises and homework tasks, may have contributed to the positive gains reported by the participants.

Furthermore, the participants' reported that they appreciated the competency and interpersonal skills of the facilitators. The programme was facilitated by four trained peer counsellors (2 in each session) in their 4th year of academic studies at the university. The university's Student Counselling Centre had trained the programme facilitators on basic counselling skills. Their role was to be a listening ear for their fellow students and direct students to resources within the university. The facilitators also had experiential knowledge of the higher education systems and could relate to the participants' experiences at the university (Gregersen et al., 2021). Previous research has also noted the value of peer counsellors/ mentors in helping students in their academic and social integration and in providing emotional support (Foxx, 2015; Pennington et al., 2018; Yomtov et al., 2017). Therefore, the peer counsellors' training and experience proved invaluable because they could relate to and empathically guide the participants. The researcher also trained the peer counsellors to facilitate the programme.

Additionally, the Flourish Forward Programme was designed in a way that would encourage a high level of group interaction. The participants reported that they valued the positive connections within the group as they were supportive and allowed them to enhance their social skills. The participants could reflect on the sessions' content, share their experiences of implementing the PPIs and offer suggestions on ways to incorporate the

interventions in their daily lives with each other. PPI programmes that are structured to provide a peer learning experience have been shown to have a considerable effect on participants' well-being and increase motivation to commit to the programme (Appiah et al., 2020; Appiah et al., 2021; Morgan et al., 2023).

Participants of the programme also reported that incorporating a mindfulness intervention (i.e. the body scan) in their daily lives helped them to manage anxiety. To carry out the body scan, one systematically directs attention from the feet and across various body parts until they reach the top of the head (Shankland & Rosset, 2017). Implementing mindfulness interventions has been shown to improve the mental health and well-being of students across various levels (Dark-Freudeman et al., 2022; Gallego et al., 2014; González-Martín et al., 2023; Parsons et al., 2022).

The participants indicated an interest in continuing the programme and recommended that it be available to more students. The participants indicated that they valued each of the sessions of the 7-week programme being offered four times a week. This was to accommodate the students' different class schedules. The programme considered the first-year students' academic calendar and did not run during their academic assessment period and holiday break. This flexibility in tailoring programmes according to participants' context has been recommended in intervention design (Donaldson et al., 2021). However, participants also noted that they would appreciate more sessions offered within the day (as opposed to only offering them in the late afternoon).

An interesting finding was that though the participants reported that the programme contributed to performing acts of kindness, they expressed a common challenge in performing this intervention. For instance, some participants shared that they experienced scepticism from others or that their acts were taken for granted. Moreover, some felt they needed more resources to share with others. In their meta-analysis of the effects of

performing acts of kindness, Curry et al. (2018) found that these interventions had small to medium effects on the well-being of the one performing the act. However, the authors also noted that there are still gaps in the literature regarding performing acts of kindness in different contexts that should be explored. Fritz and Lyubomirsky (2018) also posited that the kindness-giver may experience feelings of distress or resentment if they experience the kindness act as weighty or costly. Considering the participants' social-cultural context, they may have interpreted acts of kindness as sharing limited resources.

6.7. Concluding Integrative Summary of Quantitative and Qualitative Findings

Overall, the results from both the quantitative and qualitative studies support the Flourish Forward Programme's contribution to the improved well-being of the first-year students in the intervention group.

The quantitative data showed that the programme was effective in improving the well-being of participants, as evidenced by improved positive emotions, engagement, perception of positive relationships, meaning, accomplishment and life satisfaction. The participants' qualitative remarks on improved well-being on the above PERMA facets also confirmed these findings. Furthermore, the participants reported that the programme contributed to broadening their perspectives and behaviours.

In addition, the quantitative findings suggest that the programme contributed to decreased symptoms of depression and anxiety. This impact was less pronounced in the participants' qualitative remarks. However, the participants reported that they could cope better with stressors and that a mindfulness intervention activity helped decrease anxiety.

The qualitative remarks added information on specific programme factors that contributed to the participants' well-being, including the facilitation and organisation of the programme and the formation of positive connections within the group. They also recommended that the programme continues and be offered to students on all academic

levels. However, participants also reported a barrier when implementing one of the interventions (acts of kindness).

To the researcher's knowledge, the research study was the first to evaluate the effect of a multifaceted positive psychological intervention programme on first-year university students in Kenya. The Flourish Forward Programme is based on Seligman's (2011) PERMA model of well-being and aims to boost students' well-being. This chapter's findings will inform the subsequent chapter, which will provide guidelines for implementing a positive psychological intervention programme with students in higher education.

Chapter 7: Conclusions and Recommendations

7.1. Introduction

Transitioning to higher education can be a challenging experience that can critically impact the well-being of first-year students (Maymon & Hall, 2021). There is evidence that positive psychological interventions (PPIs) can enhance the well-being of students (Dorri Sedeh & Aghaei, 2024; Yang et al., 2024). However, there is a dearth of research specifically investigating the applicability of PPIs with first-year university students in the sub-Saharan African context. In addition, there is limited qualitative research on first-year students' experiences of PPIs. Therefore, the broad aim of this study was to investigate the effect of a PPI programme (Flourish Forward Programme) on the well-being of first-year students at a Kenyan university and develop guidelines for implementing PPI programmes with students. This chapter summarises the research findings and proposes guidelines for implementing PPI programmes with first-year higher education students. In addition, the chapter outlines the contributions and limitations of the study. Recommendations for future research are also proposed.

7.2. Summary of Research Findings

The following section summarises the main research findings discussed in Chapter 6, integrating the quantitative and qualitative results. The research objectives were set to answer two main questions: 1) What changes occur in first-year students' well-being after participating in a positive psychological intervention programme? and 2) How did the participants experience the positive psychological intervention programme?

7.2.1. Incidence of Well-being and Mental Ill Health (depression and anxiety) among First-Year Students

To answer the first research question, the first research objective was to develop a 7-week PPI programme based on Seligman's (2011) PERMA model of well-being (see section 5.5.3.1). The second objective was to determine the incidence of well-being and symptoms of mental ill-health among first-year students in a Kenyan university (n=234). Most participants were between 18 and 20 years old (78.5%) and single (87.8%), which can be expected of first-year students. The number of males (53.5%) was slightly higher than the females (46%). Contrary to prior studies (e.g., Auerbach et al., 2018; Single et al., 2019), most students reported not engaging in substance use. Majority of the participants also reported being aware of the university's religious or spiritual support services. This was unsurprising as most higher education institutions in Kenya encourage students to participate in religious/ spiritual activities (Mugambi, 2023). Most students also reported that they could not comfortably meet their financial needs. This tends to be a common stressor for first-year students (Hassel & Ridout, 2018; Pretorius & Blaauw, 2020).

In this study, well-being was operationalised using Seligman's (2011) PERMA model of well-being. This comprises moderate to high levels of overall well-being, positive emotions, engagement, meaning, perceived positive relationships and accomplishment. In addition, well-being was conceptualised as moderate to high levels of life satisfaction. The implementation of PPIs has been found to alleviate symptoms of mental ill-health, such as depression and anxiety (Carr et al., 2021; Pan et al., 2022). Therefore, the study also sought to determine the incidence of mental ill-health, i.e. moderate to high levels of depression and anxiety symptoms.

The participants reported moderate levels of overall well-being, meaning, and accomplishment. However, they reported low levels of positive emotions, engagement, and

perceived positive relationships, that is, below the mid-range as measured by the PERMA profiler. Additionally, participants reported slightly below-average life satisfaction (below the mid-range on the Satisfaction with Life Scale). Participants also reported mild depressive symptoms and anxiety symptoms as measured by the PHQ-9 and GAD-7 respectively.

As discussed in section 6.6.1.2, there is a paucity of research evaluating first-year students' well-being according to the PERMA facets. In addition, prior studies have reported low levels of well-being in first-year students (Slykerman & Mitchell, 2021; Szepe & Meszaros, 2024). The reported low levels of positive emotions, engagement, perceptions of positive relationships, and life satisfaction in this study were unsurprising as students' well-being can be implicated by challenges experienced transitioning to higher education. The qualitative findings supported the above findings as the participants reported experiencing challenges during the transition process. These challenges included difficulties building social connections, experiencing negative emotions, and struggling with stress.

7.2.2. Implementing a Positive Psychological Intervention Programme

The third objective was to implement the PPI programme. There were 34 first-year students who took part in the programme. Chapter 5 (see section 5.5.3.2) and the facilitators' manual (Appendix J) detail the procedure and the sessions covered within the programme. Each of the seven-week sessions was offered four times a week. Each group session consisted of approximately 10 participants.

7.2.3. The Incidence of Well-being and Mental-ill health after the Intervention

The fourth objective was to determine the incidence of well-being and mental ill-health following the intervention. The quantitative results of the intervention and control groups (n=68 in total) were compared at two time points (pre-intervention and post-intervention). At mid-intervention, there were no significant differences in the well-being and mental ill-

health of a smaller sample of the intervention and control group (n=28). Both groups reported moderate levels of overall well-being and life satisfaction.

However, at the end of the 7-week intervention, there were significant improvements in well-being in the intervention group compared to the control group. The intervention group reported high levels of well-being in areas such as positive emotions, engagement, relationships, and meaning. However, their sense of accomplishment remained at a moderate level. Within the intervention group, there was a trend towards enhanced sense of positive relationships, meaning and accomplishment, though these results were not statistically significant.

The quantitative results also revealed a significant decrease in self-reported symptoms of depression and anxiety in the intervention group, compared to the control group. Within the intervention group, there was a trend towards reduced depressive symptoms, though these findings were not statistically significant. The findings were consistent with previous studies reporting the effectiveness of PPIs in enhancing well-being as well as mitigating symptoms of depression and anxiety of students in higher education (e.g., Dorri Sedeh & Aghaei, 2024; Goodmon et al., 2016; Krifa et al., 2022; Morgan et al., 2023; Yang et al., 2024). In addition, similar findings were reported in prior studies that based their intervention programmes on Seligman's (2011) PERMA model of well-being. However, there is a paucity of research on studies focusing on first-year students, as most existing studies tend to include students across all academic levels.

7.2.4. First-Year Students' Experience of the PPI Programme

To answer the second research question, semi-structured interviews were conducted with seventeen participants to explore their experience of the positive psychological intervention programme. Specifically, the objectives were to explore participants' experience after joining the programme, participants' perceptions of the influence of the programme on

their thoughts, emotions, behaviour, or general well-being and the specific aspects of the programme that influenced participants' well-being. The main qualitative findings are summarised below.

Themes and sub-themes emerging from the thematic analysis indicated that, prior to joining the intervention, participants experienced challenges related to transitioning to higher education. These challenges included difficulties with building social connections and experiencing negative emotions and stress. The findings align with previous studies that have highlighted the challenges that first-year students during their transition to higher education (e.g., Auerbach et al., 2018; Denovan & Macaskill, 2017; Maymon & Hall, 2021; Uleanya & Rugbeer, 2020; Wangeri et al., 2012).

The qualitative findings also indicated improvements in the PERMA facets of well-being, i.e., Positive emotions, Engagement, Relationships, Meaning and Accomplishment. Positive emotions experienced were related to increased happiness, gratitude and optimism. The participants also expressed that they used their character strengths and found that implementing the interventions was a constructive use of their time, which may have improved their engagement levels (Mason, 2019; Schueller & Parks, 2014). Participants further reported being more focused on their studies. However, there was an absence of descriptions of flow, which is associated with psychological engagement and being fully immersed in an activity (Nakamura & Csikszentmihalyi, 2014). Nonetheless, experiencing a flow state without distractions may have been challenging in the education environment (Kern, 2022).

Participants reported improved relationships in that they felt more competent in their interpersonal interactions and could form new friendships. The sessions in the programme included opportunities to interact with others and activities such as the Active Constructive Responding technique (Gable et al., 2018) to aid in improving relationships. Participants also

expressed being more aware of their values and an increased sense of community, which may have contributed to their improved sense of meaning (Gamage et al., 2021; Mason, 2013). The findings also aligned with subjective accomplishment (Kern, 2022) as participants recounted developing problem-management skills and increasing goal-directedness.

Another central theme was participants' broadened perspectives and behaviours following the intervention. In particular, the participants expressed being more equipped to manage stress levels and embrace different perspectives. This aligned with Fredrickson's (2013) broaden-and-build model of positive emotions. The model suggests that the experience of these emotions, as promoted in the programme, could contribute to the growth of resources in participants. In addition, one of the sessions in the programme specifically focused on ways to deal with stress.

In addition, participants reflected on aspects of the programme that contributed to their well-being. Participants expressed that they found the programme well-organised and beneficial. As recommended in other studies (Donaldson et al., 2021; Lyubomirsky & Layous, 2013), participants were encouraged to practice and reflect on their learnings and integrate PPIs into their daily routines. Training peer counsellors to facilitate the programme proved valuable as they could relate to the participants' experiences and empathetically support them (Foxx, 2015; Gregersen et al., 2021; Yomtov et al., 2017). Positive connections were formed within the group as participants reflected on the supportive group environment and interactions. Such connections have been found to improve motivation and commitment within other PPI programmes (Appiah et al., 2021; Morgan et al., 2023). Another key theme was that the mindfulness intervention was worth the practice and helpful in managing anxiety. Prior studies have reported that mindfulness interventions can help improve the well-being of students (González-Martín et al., 2023; Parsons et al., 2022).

Additional themes also emerged. For instance, the participants reported that they would be interested in continuing the programme and that the facilitators should make it accessible to more students. Some participants also expressed experiencing a barrier to implementing an act of kindness intervention, related to scepticism from recipients or the acts being taken for granted. Fritz and Lyubomirsky (2018) posited that the giver may feel burdened if the kindness act is considered weighty or costly.

The above findings supported the improvements in well-being reported in the quantitative results. Through triangulation of the quantitative and qualitative data, the results showed that the participants experienced an increase in well-being and a decrease in depressive and anxiety symptoms. It can be concluded that a PPI programme may be an appropriate intervention to enhance the well-being of first-year students in higher education.

7.3. Guidelines for Implementing a PPI programme with Students

The final research objective was to propose a framework for implementing a PPI programme to enhance student well-being among Kenyan university students. Findings from the study as well as existing literature were integrated to achieve this aim.

Guideline 1: It would be valuable to collaborate with other services in the university that support the students' well-being, such as the student counselling centre or Department for Student Affairs. These services may also recommend the programme as an additional resource to support their well-being. Before facilitating the Flourish Forward Programme, the researcher obtained ethical clearance from the university to conduct the study (see Appendix G) and contacted the university's student counselling centre to inform them of the study's possible outcomes. The centre was also informed that the researcher would refer students exhibiting severe symptoms of depression and anxiety for further assessment and assistance (see Appendix I). Involving other support services within the university allows for effective support to be provided to the students, as a PPI programme is not meant to be the sole go-to

resource for boosting students' well-being. Therefore, facilitators should refer students to other resources within the university where necessary.

Guideline 2: The findings of this study indicate that it is essential for the programme's content to tap into various aspects of well-being. The Flourish Forward Programme consisted of multi-component positive psychology interventions (MPPIs) and addressed both hedonic (e.g., positive emotions) and eudaimonic (e.g., meaning) aspects of well-being. The programme was based on Seligman's (2011) multi-dimensional PERMA model of well-being, which has been successfully applied in various educational settings (Morgan & Simmons, 2021; Morgan et al., 2023; Shoshani et al., 2016; Yang et al., 2024).

However, the multiple interventions also need to be context-appropriate. Within the study, participants reported experiencing challenges in implementing an act of kindness intervention. For instance, some participants reported feeling they lacked resources to share with others. Though the Flourish Forward Programme did not dictate the kindness interventions that the participants could implement, some participants may have interpreted the activity as having to give tangible resources. Considering that the students had reported experiencing financial stressors, interventions considered costly by participants could negatively impinge on their well-being (Fritz & Lyubomirsky, 2018). Nonetheless, the quantitative and qualitative findings indicated an improvement in participants' well-being.

Guideline 3: The programme needs to be thoughtfully structured to promote learning and engagement (see Appiah, 2023). At the beginning of each session, including ice-breakers and reviewing expectations and group norms could help participants build rapport and feel at ease. Thereafter, the facilitators can review the previous sessions' key components and encourage feedback on the homework assignment. The latter would help identify the factors that may have encouraged or hindered intervention implementation. Following the facilitation of the session's central concept, including breakout sessions and exercises, would allow

participants to implement interventions, practice skills and discuss their experiences and homework activity. Lastly, it would also be beneficial to incorporate a "wrap-up" section at the end of each session where facilitators can summarise the main ideas and briefly share the main topic for the following week. Participants can then share key takeaways and evaluate the session.

Guideline 4: An information session before the start of the intervention programme is likely to encourage the students' interest, attendance, and commitment. Furthermore, the students may be unfamiliar with well-being interventions, and the PPI programme may be a novel experience. Therefore, an information session would highlight key content or themes and the programme's layout. In addition, the facilitators would clarify logistical concerns such as times, dates and venues. It would also be valuable for facilitators to provide the students with a journal or programme manual and encourage them to bring this to the sessions to record their experiences, key takeaways and homework assignments. Moreover, it would be beneficial for the facilitators and participants to collaborate on group norms (e.g., being respectful and maintaining confidentiality), discuss expectations and set boundaries for conduct. This collaboration could increase the students' comfort and desire to engage in the sessions. As noted previously, religious/ spiritual engagement is often encouraged in higher education settings (Mugambi, 2023). The participants had requested to start the sessions with a facilitator or participant-led prayer. Incorporating students' requests where appropriate may enhance a sense of ownership and acceptance of the programme. In the following sessions of the programme, the facilitators could take a few minutes to review the expectations and norms with the group.

Guideline 5: Findings of the study indicated that participants would have preferred having multiple sessions to choose from in a day. Though each of the sessions of the Flourish Forward Programme was offered 4 times a week, some students could not commit to the

programme as they had conflicting classes or extra-curricular activities scheduled at those times. Therefore, offering the same session in the morning and afternoon may allow the students to choose the time slot that best suits them. However, including more time slots may require involving more facilitators (see Guideline 6). Participants of the 7-week intervention also recommended that the programme continue (i.e., more sessions) and be accessible to students across all academic levels. Though prior literature suggests 4-8 weeks of sessions to prevent attrition (Bolier et al., 2013; Morgan & Simmons, 2021), follow-up/booster sessions could be offered in the following semester. These sessions may help reinforce skills gained and support students where needed, for instance, in sustaining the implementation of PPIs. As PPI programmes are valuable to not only first-year students (Morgan et al., 2023; Yang et al., 2024), making the programme accessible to students across academic levels could aid in enhancing the well-being of students across the higher education environment.

Guideline 6: Training peer counsellors or student mentors to facilitate the sessions is advantageous as they are familiar with student life within the university and have the added advantage of prior training in promoting positive behaviour change in higher education. The facilitators of the Flourish Forward Programme were students in their fourth academic year and peer counsellors at the university. Moreover, the facilitators were part of the programme simulation and thereafter trained on essential knowledge of the theories and principles to enhance their competency in facilitating the programme. To further guide them, providing a programme manual to each facilitator would be valuable. Participants reported that the facilitators were competent in the intervention delivery and had interpersonal skills. Facilitators must be approachable and welcoming, as the facilitators' characteristics can affect the programme's delivery and engagement (Appiah, 2023).

Guideline 7: Fostering positive interpersonal relationships is vital in enhancing students' academic and personal well-being (Okita, 2024). Providing opportunities, such as

through breakout sessions, for students to interact with one another would allow them to share their views of the content, practice skills, and receive peer support. Facilitators can also monitor progress and give feedback to individual participants within the breakout sessions (Appiah, 2023). Furthermore, the students should be encouraged to share context-relevant examples and ask questions when they need clarification.

Guideline 8: Monitoring sessions is key to ensuring effective programme delivery. In the Flourish Forward Programme, two of the four facilitators facilitated each session, and these co-facilitators would take turns covering the different sections of the session. Co-facilitation is also valuable as while one facilitates the group, the other facilitator can observe the proceedings and dynamics of the group. They can also draw attention to important information that may have been missed by the other facilitator or help in clarifying concepts tackled in the session. Having one facilitator monitor and provide constructive feedback at the end of the session could also help boost the facilitators' competency in upcoming sessions. As Appiah (2023) suggests, monitoring through a scoring criteria can also help facilitators bear in mind key factors, such as being aware of the speed of the delivery and providing enough time for each part of the session. Having dress rehearsals where facilitators meet before the sessions can help them reflect on the sessions, become aware of their strengths, and note areas of improvement while facilitating upcoming sessions.

7.4. Contribution of the Study to the Theory and Application of Positive Psychology

This study has contributed to the theory and application of positive psychology, particularly in the context of first-year students in higher education. First, on a theoretical level, the study has expanded the existing knowledge base of positive psychology, particularly regarding the incidence and experience of well-being of first-year students at a Kenyan university. In addition, the study contributed to the field of positive psychology as there is limited research concerning the influence of PPIs in non-Western

cultures, particularly the African context. Accordingly, to the researcher's knowledge, it is the first study to examine the influence of PPIs on the well-being of first-year students in a Kenyan university.

Second, the study expands the existing knowledge base towards developing PPI programmes based on Seligman's (2011) PERMA model of well-being. As noted previously, though programmes based on this model have been found to be effective in facilitating well-being (e.g., Morgan et al. 2023; Yang et al. 2024), there is a scarcity of programmes based on the PERMA model in the African context.

Third, this study's findings suggest that PPIs could improve first-year students' well-being, as operationalised in this study. These findings provide evidence for the importance of context-specific PPIs and support the use of group discussions facilitated by trained individuals to promote well-being.

Fourth, on a practical level, this study has led to the development of guidelines for implementing PPIs with students in universities in Kenya. At present, there are no such guidelines for this context, and therefore, the study contributes to the application and practice of PPIs in higher education. Additionally, the insights gained in the study may assist departments within the higher education context (e.g., student counselling) in seeking more effective interventions for students. Furthermore, the PPI programme is a valuable resource that would be available to higher education institutes in Kenya to support the well-being of the students.

7.5. Limitations of the Study

Despite the above-mentioned contributions that this study makes, some limitations were identified. First, there was a lack of complete random assignment of participants to the intervention and control groups. Furthermore, there was the possible risk of contamination between the intervention and control groups as both participants possibly shared residences

and classes. However, the study was quasi-experimental, and the groups were matched according to age, gender, and scores on the pre-intervention measures. Moreover, through triangulation, the mixed-method design also contributed to data quality.

Second, concerning the sample size, there were a small number of participants in each group, and therefore, caution should be employed in generalising the findings to the larger student population. Furthermore, out of the seventeen participants in the qualitative phase, only 5 were male students. Consequently, the conclusions drawn regarding male students' experience of the PPI programme should also be interpreted with caution.

Third, the study had only two measurement points: before and immediately after implementing the Flourish Forward Programme. A follow-up assessment was not possible, so no long-term conclusions on the influence of PPIs on first-year students' well-being could be ascertained. Therefore, further investigation is required to determine the long-term effects of the intervention.

Finally, as the Flourish Forward Programme was voluntary, the participants were those able to dedicate 90 minutes of their time each week to attend the 7-week programme and whose academic schedules accommodated them to attend. Resultantly, the programme failed to reach those who could not commit to the weekly timeslots due to their conflicting schedules.

7.6. Recommendations

Based on the findings and limitations of this study, the following recommendations regarding further research and practice are made:

7.6.1 Research Recommendations

- It is recommended that future studies use randomised controlled trials with a larger number of participants to increase the analytical accuracy of the findings.

- As the study included an assessment-only control condition design, further studies should consider including a wait-list control condition to examine the influence of PPI programmes on student well-being.
- It is also recommended that longitudinal studies be conducted on the long-term impact of PPIs on student well-being in the African context.
- Future iterations of the Flourish Forward Programme, the PPI programme designed for this study, could also be adapted and evaluated as an online intervention.
- As the study took place in one Kenyan university, implementing and evaluating the Flourish Forward Programme in other higher education institutes would provide insight into the applicability of the programme in these settings.
- Additionally, the Flourish Forward Programme, the PPI program could be evaluated and adapted for use with students at different academic levels.

7.6.2 Practical Recommendations

- Higher education institutes should be encouraged to incorporate PPI programmes into their current practices to promote student well-being.
- The research findings highlighted the importance of facilitating positive connections amongst the participants within the programme. Thus, the facilitators of future PPI programmes should structure and deliver the programme in a way that promotes interaction and collaboration, thereby fostering a sense of connectedness amongst the participants.
- Facilitators may find it helpful to offer the sessions at different times of the day to accommodate students with varying academic schedules. This may help promote attendance and commitment to the programme.

- Finally, facilitators should also consider providing follow-up/ booster sessions following the programme's end to revive participants' memories and encourage them to continue implementing PPIs in their daily lives.

7.7. Personal Reflection

My journey with positive psychology began during my first internship at a student counselling center while pursuing my undergraduate studies in South Africa. During this experience, I interacted with many students struggling with challenges that affected both their personal and academic lives. As an international student, I was also not immune to setbacks that impacted my well-being. However, my supervisors at the counselling center introduced me to positive psychological interventions and I witnessed their effectiveness in enhancing students' lives. Moreover, I became curious about how positive psychology was being applied in my home country, Kenya, especially since it seemed to be more widely researched and implemented in South Africa.

Years later, while working in a higher education setting in Kenya, I interacted with students who were having difficulty adjusting to the demands of higher education and were unsure about how to cope with their challenges. As positive psychology started to gain traction in Kenya, the media increasingly highlighted the need for low-cost, non-stigmatizing interventions. During my PhD journey, I aimed to explore whether implementing positive psychological interventions could promote the well-being of first-year students in Kenya. Both quantitative and qualitative results indicated improvements in student well-being. The qualitative findings particularly emphasized that group interventions led by empathetic facilitators foster a sense of connectedness among participants. On a personal level, I hope that these research helps other students experience the value of positive psychological interventions, allowing them to apply these strategies in their academic journeys and other areas of their lives.

7.8. Final Conclusion

It can be concluded that the research study met the set objectives. The study determined the incidence of well-being and mental health among first-year students at a Kenyan university. By utilising a mixed-methods design and designing and implementing a PPI programme, the findings indicate that implementing PPIs improves first-year students' well-being and alleviates symptoms of depression and anxiety. The findings were employed to develop guidelines for implementing PPIs with students to facilitate their well-being. This study contributes to the body of research on the influence of PPIs on students' well-being and can also inform the development and implementation of similar interventions. Therefore, additional research in this regard is recommended.

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Appendix A: Biographical Questionnaire

Thank you for taking the time to complete this questionnaire. Please provide your responses

Please answer the following questions in the spaces provided.

1) Age (years)

a. 18-20

c. 24-26

b. 21-23

d. Over 27

2) Gender:

a. male

c. other

b. Female

3) What is your relationship/marital status

a. Single

d. Prefer not to say

b. Separated

c. In a relationship

4) Please indicate the school you're enrolled in

School of Education	
School of Business and Economics	
School of Environmental and Earth Sciences	
School of Humanities and Social Sciences	

5) What Academic Program are you enrolled in?

B.A/B.S.C

.....

6) Are you aware of any of the following support services offered at Pwani University?
 Please tick yes or no and if possible, list/describe the services that you're using in the last column :

Support Service	Yes	No	Description
Emotional e.g. Student counselling			
Financial aid/ guidance			
Religious/ Spiritual			
Social			
Academic			
Mentorship eg. Career guidance			

7) Please tick your current accommodation type:

a. On-campus accommodation: ☐

b. Off-campus accommodation: ☐

8) Please tick the statements that apply most to you regarding your financial standing
(you can pick more than one option)

	Yes	No
I find it difficult to meet my financial needs		

I have to work part-time to meet my financial needs		
I can comfortably meet my financial needs		
I find it difficult to meet my financial needs but I am contented		
I often have trouble managing my money		
I have to borrow often to meet my financial needs		

9) Are you engaging in any substance use (e.g., alcohol, cigarettes, recreational drugs, non-prescribed medication)

a) Yes:

☐

b) No:

☐



Primary Researcher:

Pamela Miano

Tel:

+254791579752

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Contact Person in case of any queries:

Prof. Dr. Barbara Moschner

Email address: barbara.moschner@uni-oldenburg.de

Carl von Ossietzky University of Oldenburg
Ammerländer Heerstr. 114-118
26129 Oldenburg, Germany

Appendix B. Participant Information Sheet

Title of the study: The influence of a positive psychology intervention programme on Kenyan first-year students' well-being

Welcome to our study on "The influence of a positive psychology intervention programme on Kenyan first-year students' well-being" Thank you for your interest in this study.

We are using this study to investigate whether Positive Psychology Interventions have an influence on the well-being of first-year students at Pwani University in Kenya.

Procedure of the study

You will be asked to complete pre-intervention measures that are related to well-being. These measures will be used to assess levels of well-being, depression and anxiety. Thereafter, you may also be invited to participate in a 7-week positive psychology intervention programme. The programme would take place once a week and each session would last approximately 90 mins. The programme will cover the different elements of the PERMA model (Positive Emotions, Engagement, Relationships, Meaning and Accomplishment). In each session of the programme, you will be introduced to different aspects within positive psychology such as ,Gratitude‘, ,Strengths‘ and ,Resilience‘. You will also be asked to complete different activities within the sessions and within the 7 weeks that are related to those aspects. You will also be asked to journal your experience of the different activities and the programme as a whole. The purpose of journaling is to aid your recall when giving feedback on their experience of the programme. The journal will remain your own private property. This journal will not be used in the analysis of your data. After completion of the programme, you would be asked to complete post-intervention measures. These will be the same measures that you completed before the programme so as to assess levels of well-being, depression and anxiety.

You may also be contacted to be interviewed three months after completion of the programme to explore your experience of the programme.

Please note that at this stage, it will not be possible to invite everyone to take part in the positive psychology programme. However, if positive effects are established after completion of the study, the aim will be to have the programme made available for those who would like to take part in it.

If after completing the pre-intervention measures symptoms of severe depression or anxiety levels are noted in your results, you will be referred to Pwani University’s Student Counselling Centre to receive appropriate help.

Personal Data

The following personal data are included in the data processing: age, gender, academic program enrolled in, socio-economic background, accommodation type, use of drugs, alcohol and medication, and if seeking support services.

Confidentiality of information and anonymity

The data and personal communications collected as part of this study will be treated confidentially. Pseudonymity will be ensured by creating a list of codes where code numbers will be assigned to each participant. These codes will be used in all research notes and documents. The list of codes will be only be accessible to the researcher in paper format and will be destroyed once the research study is completed. The rest of the data collected will be kept in a closed storage for a period of 10 years and will only be accessible to the researcher.

The results of this study will be published in anonymous form. Findings from this study will be disseminated through conferences and publications. Participant information will be kept confidential, except in cases where the researcher is legally obligated to report incidents such as abuse and suicide risk.

If you still have questions, please feel free to contact the researcher.

Sound recordings

During the interviews, sound recordings will be made. The recording and analysis of the sound recording will be done pseudonymously, i.e. using a number and without mentioning your name and a coding list exists on paper linking your name to the number. The coding list is only accessible to the investigator and will be deleted after the data collection is completed. There is a very low probability that any person involved in the data analysis will recognize you. For this reason, all persons involved in the evaluation are bound by absolute confidentiality and are not allowed to disclose confidential information to third parties under any circumstances.

You may revoke your consent to the retention or storage of this data without incurring any disadvantages and participation in the study will still be possible. The sound recording will be kept in a locked cabinet. You may request deletion of your recordings at any time, as long

as the coding list exists. In any case, however, the recordings will be destroyed after the evaluation is completed.

The sound recording may be played for demonstration purposes in events with limited participation (eg. teaching events).

Voluntary nature of the study and withdrawal

Participating in this study is voluntary and you are under no obligation to consent to participation. If you decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. If you decide not to take part in the study, you will not be penalized.

The data and personal communications collected as part of this study and described above will be treated confidentially. Thus, those project members who have personal data through direct contact with you are subject to the obligation of confidentiality. Furthermore, the publication of the results of the study will be in anonymous form, ie. without your data being able to be assigned to your person.

Data Protection

The collection and processing of your personal data described above is done pseudonymously in the Carl von Ossietzky University of Oldenburg using a number and without giving your name. There is a coding list on paper that links your name to the number. The coding list is only accessible to the investigators and the project leader; that is, only these persons can associate the collected data with my name. The coding list will be kept in a lockable cabinet and destroyed after completion of data analysis but no later than 31st January 2024. Your data are then anonymized. This means that it is no longer possible for anyone to associate the collected data with your name. The anonymized data will be stored for at least 10 years. As long as the coding list exists, you can request that all data collected from you be deleted. However, once the coding list is deleted, we can no longer identify your record. Therefore, we can only comply with your request to delete your data as long as the coding list exists.

Remuneration:

No money is offered for participating in this study. For those who will be taking part in the positive psychology programme, small snacks and a drink will be offered as refreshments.

With differentiated deletion periods:

Your personal data will be stored for different periods of time. In detail:

Demographic data:

Anonymization immediately after discontinuation of the purpose pursued with the data processing, at the latest after 10 years (good scientific practice).

Contact data:

Deletion immediately after completion and evaluation of the data.

Duration of processing

After evaluation of all data and completion of the study, but at the latest after the research purpose has ceased to exist, your data will be anonymized as soon as possible - in particular before publication for scientific purposes (e.g., professional articles, conference papers, scientific databases [open data repositories]). The responsible party is obliged to do this in accordance with Section 13 (2) Sentence 1 of the Lower Saxony Data Protection Act (NDSG). Anonymization means that no one can assign your data to your person anymore. Your data is then no longer "personal" in the sense of data protection legislation.

Use of this data

This study is for research purposes only.

Provided that disclosure neither to third parties nor to third countries/international organizations.

The personal data concerning you will not be passed on to third parties without your consent.

Unless an adequacy decision:

When transferring your personal data, appropriate safeguards are provided by the controller/processor, within the meaning of Article 46 of the GDPR.

Contact details of the responsible persons and the data protection officer

Responsible	Data protection officer
<p>Carl von Ossietzky Universität Oldenburg</p> <p>legally represented by the president Ammerländer Heerstr. 114-118 26129 Oldenburg Telephone: +49 441 798-0 Fax: +49 441 798-3000</p> <p>E-Mail: internet@uol.de Internet: https://uol.de</p>	<p>Carl von Ossietzky University Oldenburg</p> <p>The Data Protection Officer Ammerländer Heerstr. 114-118 26129 Oldenburg</p> <p>Tel.: +49 441-798-4196</p> <p>E-mail: dsuni@uol.de Internet: https://uol.de/datenschutz/</p>

Contact

To contact us, in particular to exercise your data subject rights, please contact the project coordinator named in the letterhead.

Legal basis

The legal basis for the collection of personal data concerning you is e.g. consent according to Art. 6 para. 1 lit. a DSGVO

Rights as a data subject

- You have a right of access to the personal data concerning you (Art. 15 DSGVO).
- You may without undue delay request the controller to correct any inaccurate personal data concerning you or to complete any incomplete personal data (Art. 16 DSGVO).
- You are hereby informed that you may at any time request erasure of personal data concerning you (Art. 17 DSGVO).
- You may request the restriction of processing insofar as the legal requirements are met (Art. 18 DSGVO).

- You have the right to receive the personal data concerning you in a structured, common and machine-readable format and to transfer this data to another controller (Art. 20 DSGVO).

- You may object at any time to the processing of personal data concerning you that is carried out on the basis of Article 6(1)(e) or (f) DSGVO (Article 21 DSGVO).

- You may withdraw your consent at any time with effect for the future without affecting the lawfulness of the processing carried out on the basis of the consent until the withdrawal (Art. 7 (3) of the GDPR).

Provision of data and consequences of non-provision

The provision of personal data concerning you is neither contractually nor legally required. You are not obliged to provide personal data concerning you. Failure to provide would have no negative consequences on the participant.

Right of complaint to a supervisory authority

If you believe that the processing of your personal data violates data protection regulations, please contact the data protection officer(s) of the responsible parties (see above). Independently of this, you have the right to lodge a complaint with the competent supervisory authority. The competent supervisory authority is:

Die Landesbeauftragte für den Datenschutz Niedersachsen

Prinzenstraße 5

30159 Hannover

Telefon: 0511 120-4500

Telefax: 0511 120-4599

Email: poststelle@lfd.niedersachsen.de



Carl von Ossietzky University of Oldenburg

Pamela Miano

Tel: +254791579752

Email address: pamela.miano@uni-oldenburg.de

Contact person in case of any queries:

Prof. Dr. Barbara Moschner

Email address: barbara.moschner@uni-oldenburg.de

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26129 Oldenburg, Germany

Appendix C. Declaration of Consent

Pwani University

Title of the study: The influence of a positive psychology intervention programme on Kenyan first-year students' well-being: A mixed-method study

I (Name of the participant in block letters) _____ have received written information on the study and the experimental procedure. I consent to completing the measures relating to well-being and psychological functioning. If taking part in the positive psychology programme, I consent to attending the weekly positive psychology sessions for the duration of the programme. I also consent to implementing the positive psychology interventions and journaling my experience of the intervention and programme. Upon completion of the programme, I consent to completing the same measures I completed at the beginning of the programme. I also consent to be contacted to be interviewed three months after completion of the programme to explore my experience of the programme.

I understand that it will not be possible to invite everyone to take part in the positive psychology programme and that if positive effects are established after completion of the study, the programme will be made available for those who would like to take part in it.

If I had any questions about this proposed study, they were answered by Ms. Pamela Miano completely and to my satisfaction.

Coding List

I agree with the described collection and processing of data concerning wellbeing and psychological functioning. The recording and evaluation of these data will be pseudonymized in the Carl von Ossietzky University of Oldenburg, using a number and without mentioning my name. There exists a coding list on paper, which connects my name with this number. This coding list is only accessible to the investigators and the project leader, which means that only these persons can associate the collected data with my name. After completion of the data analysis, at the latest on 31st January 2024, the coding list is destroyed. My data are then anonymized. Thus, it is no longer possible for anyone to associate the collected data with my name.

I am aware that I can revoke my consent to the retention or storage of this data without incurring any disadvantages. I have been informed that I can request deletion of all my data at any time. However, if the coding list has already been deleted, my data record can no longer be identified and therefore cannot be deleted. My data will then be anonymized. I agree that my anonymized data can be further used for research purposes and remain stored for at least 10 years.

CONSENT DECLARATION for referral to Pwani University's Student Counselling Centre

If after completing the measures symptoms of severe depression or anxiety levels are noted in my results, I give my consent to be referred to Pwani University's Student Counselling Centre to receive appropriate help. Please mark with a cross where applicable:

☐ YES ☐ NO.

CONSENT DECLARATION for sound recordings

I am informed that sound recordings will be made. The recording and analysis of the sound recording will be done pseudonymously, i.e. using a number and without mentioning my name and that a coding list exists on paper linking my name to the number. The coding list is only accessible to the investigator and will be deleted after the data collection is completed. There is a very low probability that any person involved in the data analysis will recognize me. For this reason, all persons involved in the evaluation are bound by

absolute confidentiality and are not allowed to disclose confidential information to third parties under any circumstances.

I am aware that I can revoke my consent to the retention or storage of this data without incurring any disadvantages. The sound recording will be kept in a locked cabinet. I have been informed that I can request deletion of my recordings at any time, as long as the coding list exists. In any case, however, the recordings will be destroyed after the evaluation is completed.

I agree with the described handling of the collected recordings.

Addendum for demonstrations

I give my consent that my sound recording may be played for demonstration purposes in events with limited participation (e.g. teaching events). Please mark with a cross where applicable: O YES O NO.

The declaration of consent for sound recording is voluntary. I can revoke this declaration at any time. In case of refusal or withdrawal, there will be no costs or other disadvantages for me; however, participation in the study is still possible.

I have had sufficient time to make a decision and am willing to participate in the above study. I know that participation in the study is voluntary and that I can terminate participation at any time without giving reasons.

I have received a copy of the participant information about the study and a copy of the informed consent form. The participant information is part of this consent form.

Place, date and signature of the participant: Name of the participant in block letters:

Telephone contact of participant:

Email of participant:

Place, date and signature of the investigator: Name of the investigator in block letters:

Appendix D: Interview Guide

Key Question (Information Prompt)	Check – Was that mentioned? Memo for possible questions- only ask if not addressed Customize wording	Concrete questions – please ask at a suitable place (also possible at the end) in this formulation	
1. Can you tell us about how it was to attend the positive psychology programme? (How did you feel about attending the programme?)	<ul style="list-style-type: none"> - general experience -their expectations -expectations met or not? -sessions attended, can you recall which ones? -what they enjoyed most or not -influence on both academic and other areas of your life 	<ul style="list-style-type: none"> -How did the programme affect your thinking? - How did the programme affect your feelings? -how did attending the programme affect your behaviour? 	<p>Can you comment more on that?</p> <p>Could you share some more on that?</p>
2. The programme was divided into various sessions (Intro to positive psychology, Positive emotions, engagement, positive relationships, dealing with stress, resilience and meaning). Can	<ul style="list-style-type: none"> -sessions in particular that stood out and why? -what worked for them or didn't work for them -challenging? Easy? Why? -enjoyed/not enjoyed 	<ul style="list-style-type: none"> -Are there sessions that had an influence on your thinking and how? -Are there sessions that had an influence on your feelings and how? 	

you tell us about your experience of the sessions in the programme?		-Are there sessions that had an influence on your behavior and how?	
3. Each session had an exercise that you completed either individually, paired up or in groups of three (body scan exercise, three good things you are grateful for, identifying strengths, positive feedback exercise, getting rid of ANTS, growth mindset, and values exercise). Can you tell us more about your experience of carrying out these exercises?	<p>-exercises in particular that stood out and why?</p> <p>-what worked or didn't work for you</p> <p>-challenging? Easy? Why?</p>	<p>-Are there within-session exercises that had an influence on your thinking and how?</p> <p>-Are there within-session exercises that had an influence on your feelings and how?</p> <p>-Are there within-session exercises that had an influence on your behaviour and how?</p>	
4. Towards the end of each session, there were homework tasks for you to complete in the week. Can you tell us more about your experience of carrying out the homework tasks?	<p>-homework tasks (Body scan, The three good things exercise, utilizing strengths, Act of kindness, incorporating an activity that helps you relax, monitoring automatic negative</p>	<p>-Are there homework tasks that had an influence on your thinking and how?</p> <p>-Are there homework tasks that had an influence on your feelings and how?</p>	

	<p>thoughts, my life history of success and implementing a meaningful activity everyday)</p> <p>- challenging? easy?</p> <p>-able to carry them out regularly?</p>	-Are there homework tasks that had an influence on your behavior and how?	
<p>5. Can you tell us more on how or whether the programme and activities had an influenced your overall sense of well-being</p> <p>(influence on your happiness)</p>	<p>-how did the sessions influence satisfaction with life</p> <p>-how did the sessions influence how you feel on a day to day basis</p> <p>-any changes you have noticed within yourself since started the programme</p> <p>-what about the programme may have contributed to the change</p>	<p>-what do you feel about the programme with regard to influencing positive emotions, sense of engagement, relationships, sense of meaning, sense of accomplishment</p>	
<p>6. The sessions were presented on a weekly basis for approx. 90 mins (starting with norms, ice-breaker, feedback on the homework task, topic of the session, an</p>	<p>- experience of the facilitators (4th year students who were peer counselors)</p> <p>-experience of the format of the sessions/ how the sessions were arranged</p> <p>-experience of the content</p>	<p>-How did the presentation of the sessions affect your thinking?</p> <p>- How did the presentation of the sessions were presented affect your feelings?</p>	<p>-Is there anything more you want to add regarding your experience</p>

<p>exercise, feedback on the exercise, homework task and wrapping up) by peer counselors who are also 4th year students. Could you tell us more on your experience of how the sessions were presented?</p>	<p>(...understandable? Too 'heavy', able to follow) -experience of the group setting -what would take away from the experience or remember most? -recommendations or would do differently</p>	<p>-how did the presentation of the sessions affect your behaviour? (How did they ways were presented affect you overall?)</p>	
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Appendix E: Codebook for the PERMA facets

PERMA facet	Definition	Examples
Positive Emotions	“...capacities to anticipate, initiate, experience, prolong, and build positive emotional experiences” (Norrish et al., 2013, p. 152)	Joy, hope, inspiration, creativity, gratitude, amusement, love, serenity, passion, curiosity, interest, optimism, awe, pride
Engagement	“...involves living a life high in interest, curiosity and absorption, and pursuing goals with determination and vitality” (Norrish et al., 2013, p. 153)	<p>Character strengths (Peterson & Seligman, 2004): bravery, forgiveness, creativity, humour, appreciation of beauty, spirituality, love of learning, fairness, leadership, love, persistence, curiosity, hope, kindness, gratitude, prudence, social intelligence, open-mindedness, integrity, vitality, spirituality, self-regulation, perspective, loyalty</p> <p>Flow (Csikszentmihalyi, 1990): “state of intense absorption and optimal experience that results from taking part in intrinsically motivating challenges, a key feature of which is a close match between individual skill level and task complexity and challenge”</p> <p>balance of challenge and skills, “zoned out” Focused, concentrated, absorbed</p>
Relationships	Being authentically connected to others (Seligman, 2011), linked to feeling of support, care, belonging and community (Sandstrom & Dunn, 2014)	<p>Giving and receiving support, sense of care, belonging and community</p> <p>Social connections with family, friends, community</p>

Meaning	<p>“belonging to and serving something bigger than the self” (Seligman 2011, p.17).</p> <p>Experiencing a purposeful existence through one’s activities</p> <p>Coherence- how we make sense of our lives</p> <p>Significance – whether we find our life as having value and being worth living</p> <p>Purpose – goals and aspirations we set for ourselves (Heintzelman & King, 2014)</p>	<p>Values</p> <p>Purpose in life derived from one’s engagement and strengths (Martela & Steger, 2016)</p>
Accomplishment	<p>“ making progress towards goals, feeling capable to do daily activities, having a sense of achievement” (Kern et al., 2015, p. 263)</p>	<p>Productivity, sense of achievement or accomplishment in goals, actions</p>

Appendix F: Ethical Approval from the Carl von Ossietzky University of Oldenburg's Ethics Committee



CARL VON OSSIETZKY UNIVERSITY OF OLDENBURG 26111 OLDENBURG

Ms Pamela Miano
Prof. Dr. Barbara Moschner
Carl von Ossietzky University of Oldenburg

Decision of the Research Impact Assessment and Ethics Committee regarding the application The influence of a positive psychology intervention programme on Kenyan first-year students' well-being: A mixed-method study. -Revision-AN: Pamela Miano, Carl von Ossietzky University of Oldenburg, Baumeisterstrasse 8, 26122 Oldenburg, pamela.miano@uni-oldenburg.de, 01575 2032342, Weitere Beteiligte: Prof. Dr. Barbara Moschner, Carl von Ossietzky University of Oldenburg, Ammerländer Heerstraße 114 – 118, 26129 Oldenburg, barbara.moschner@uni-oldenburg.de (Drs.EK/2022/012-01)

Research Impact Assessment and Ethics Committee

CHAIR
Prof. Dr.-Ing. Andreas Hein

ADMINISTRATOR
Zentrales Gremienbüro

EXTENSION
+49 (0)441 798 4742

E-MAIL
gremien-ek@uol.de

OLDENBURG, 14/03/2022

Dear Ms Miano, dear Prof. Dr. Moschner,

The Research Impact Assessment and Ethics Committee at the Carl von Ossietzky University of Oldenburg thoroughly examined the abovementioned research project during its meeting on 23.02.2022. The Committee has no objections to the implementation of the project.

Committee members who are involved in the research project or whose interests are affected by the research project did not participate in the discussion and decision-making process.

The Committee's positive assessment assumes conditions will remain unchanged.

Please note the following points:

You must inform the Ethics Committee, immediately and voluntarily, of any changes to the research protocol and to the documents submitted as part of this application. Any serious adverse events that fall within its scope of responsibility must be reported promptly to the Committee.

The respective researcher remains fully responsible.

CENTRAL OFFICE OF COMMITTEES
POSTAL ADDRESS
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Ammerländer Heerstraße 114 - 118
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WEBSITE
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The Ethics Committee may withdraw or change this decision at any time. You will be duly informed of any such decision.

Please provide a copy of this decision and the documents on which the decision was based to all researchers involved in the project.

Please note that the project is subject to the EU's General Data Protection Regulation (GDPR). With regard to data privacy and declaration of consent, the following points in particular must be observed in addition to the measures already in place for ensuring data protection:

You must appoint someone to be responsible for data processing throughout the project. If this person becomes the project manager, he or she must nonetheless be explicitly mentioned by name as the person responsible for data processing.

You must publish the name and contact details of the relevant data protection officer (at the University and partner organisation(s)/principle investigator's institution).

Participants in the research must also be made aware of their right to complain to a data protection supervisory authority (state data protection commissioner or national data protection commissioner in the state/country in which the research centre, partner organisation(s) or principle investigator is located). The relevant data protection supervisory authorities must also be mentioned. This information must be adapted for each research/study centre.

The data subjects must be informed of their right to access (including the free transfer of a copy of) their personal data and their right to request that their data be corrected or deleted, if necessary.

For more information regarding your obligations towards research participants, please refer to Article 13 ff. of the GDPR. The Ethics Committee does not verify the accuracy of the information pertaining to the data protection commissioners and the supervisory authorities. For the Ethics Committee, it is sufficient to provide the area for the information concerning the regional data protection commissioner and the supervisory authorities.

I wish you every success in your project.

Kind regards,

signed.

Prof. Dr.-Ing. Andreas Hein

Appendix G: Ethical Approval from Pwani University's Ethics Committee

Appendix H: NACOSTI Research License

Appendix I: Letter to Pwani University's Student Counselling Centre

To the Student Counsellor,
Pwani University
P.O. Box 195-80108
Kilifi
Kenya

RE: REQUESTING ASSISTANCE FOR POSSIBLE REFERRALS

I am at present a PhD student at the Faculty of Educational Sciences at the Carl von Ossietzky University of Oldenburg, Germany. My research study is on the “Influence of a positive psychological intervention programme on Kenyan first-year students' well-being”. The aim of the research is to investigate the influence of this programme on first-year students' levels of well-being, anxiety and depression. I obtained ethical clearance from the Research Impact Assessment and Ethics Committee (ISERC/PHD/003/2022) at the Carl von Ossietzky University of Oldenburg and Pwani University's Ethics Review Committee (ISERC/PHD/003/2022).

Data collection will take place from October 2022 to February 2023. Possible benefits for the participants will be gaining an understanding of Positive Psychological Interventions and possibly experiencing some positive outcomes related to their well-being. The risks associated with this study are low. However, in the likelihood of a student exhibiting severe symptoms of depression and anxiety, I would kindly like to refer them to your centre for assistance.

Please do not hesitate to contact me in case of any queries.

Yours sincerely,

Pamela Miano
PhD student, Carl von Ossietzky, University of Oldenburg
Tel: +254791579752
Email: pamela.miano@uni-oldenburg.de

Appendix J: Flourish Forward Programme (PPI Programme) Facilitators' Manual

Introduction

University life can be both an exciting yet challenging time. Students are met with different responsibilities that challenge them to use and grow their knowledge and skills. They have the opportunity to pursue their academic goals, meet students from various backgrounds and make new friends. However, transitioning from high school into higher education is not always smooth sailing. Most often than not, students are faced with challenges as they try to adapt to a new environment and adjust to the new responsibilities (Sharma & Tankha, 2014; Wangeri et al., 2012). Many may experience homesickness and loneliness as they navigate forming new friendships (Pargetter, 2000). Some students may also experience stress as they try to cope with the academic workload. Unfortunately, when challenges weigh on them, some students may find themselves resorting to harmful coping mechanisms (Ndegwa et al., 2017) such as excessive drinking or gambling or experiencing depression and anxiety (Othieno et al., 2014).

This programme aims to offer sessions to students, particularly first-year students, with different activities that may help them improve their well-being. The programme acknowledges the challenges that students face especially when transitioning into Higher Education that affect their overall well-being. By focusing on well-being, students may reap the benefits of not only being able to face the challenges they meet in their first-year of studies but also thrive as an individual.

The following pages contain a brief look into the field of positive psychology which is the foundation upon which this programme is based on. Thus, what positive psychology is and common misconceptions of positive psychology are touched upon. In addition, the general

structure of the intervention programme is presented including the objectives and components of each session. Some general guidelines and reflections on applying the programme are also offered. Following the different sessions of the programme there will be appendices containing the different exercises/ activities applied in the sessions.

Foundation of the Positive Psychology Intervention Programme

What is Positive Psychology?

The intervention programme is grounded within the framework of positive psychology. Positive psychology has been defined as “the scientific study of optimal human functioning” (Sheldon et al., 2000, p.1). Positive psychology focuses on mobilizing strengths and improving the well-being of individuals and communities (de Villiers, 2014). However, focusing on boosting strengths has not always been the case. After World War II, psychology was preoccupied with dysfunction and with curing mental illness (Linley, 2006). This focus was rooted in the belief that fixing what was wrong would result in improved well-being. However, the absence of mental illness does not necessarily mean the presence of mental health (Keyes, 2005). The World Health Organisation (2005, p.18) defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”. It is possible to work on for instance on reducing depression levels or other symptoms of psychopathology and not have an increase in positive emotions or enhanced well-being.

In 1998, Martin Seligman, the then president of the American Psychological Association, strongly encouraged psychologists to rekindle research focusing on well-being and what is positive in life. This was not to discredit the work done on reducing negative distress but to

encourage a balance in the field of Psychology by also focusing on human flourishing (Seligman, 2011).

What are Positive Psychological Interventions?

Positive Psychological Interventions (PPIs) are activities that have been empirically validated to promote the frequency and expression of positive emotions and also facilitate the use of thoughts and actions that enhance well-being (Shueller & Parks, 2014). There is a broad range of PPIs that have been reviewed and validated, for example, interventions that involve showing and writing about gratitude (Cunha et al., 2019), performing acts of kindness (Layous et al., 2012, Curry et al., 2018) and identifying and utilizing one's strengths (Santos et al., 2013; Peterson & Seligman, 2005). PPIs have been shown to improve emotional and psychological well-being (Bolier et al., 2013) and have been implemented in various contexts and populations (Hendriks et al., 2018; Kim et al., 2018).

The PERMA Model as a Framework for Well-Being

Seligman (2002) had stated that "happiness" is made up of three facets: positive emotions, engagement, and meaning. By pursuing all three of these facets, Seligman had proposed that happiness could be attained. However, in 2011, Seligman revised his theory of happiness by including relationships and accomplishment in the model and redefined his theory as the well-being theory (Seligman, 2011). Therefore, positive emotions (P), engagement (E), relationships (R), meaning (M), and accomplishment (A) were considered central in increasing well-being (Conway, 2012; Forgeard et al., 2011; Seligman, 2011). Some PPI programmes have been based on Seligman's (2011) PERMA model of well-being (Kern et al., 2015; Lambert et al., 2019).

The Positive emotions aspect refers to deriving enjoyment from one's activities and could include feelings such as gratitude, inspiration, peace, and joy. The Engagement aspect refers to being completely immersed or absorbed in activities and taking a keen interest in the task at hand. It involves identifying one's strengths, utilising, and building them by applying them in our daily lives (Seligman, 2011). The Relationships facet refers to being authentically connected to others, while the Meaning aspect refers to experiencing a purposeful existence through one's activities. According to Seligman (2002, p. 263), the meaning aspect refers to "using your signature strengths and virtues in the service of something that is larger than you are". The Accomplishment aspect refers to achievement at the highest possible level and a sense of success in a particular domain. These proposed five pillars of well-being are not directly linked to the term "happiness" which is commonly associated with a cheerful feeling (Dodge et al., 2012; Seligman, 2011).

The positive psychology intervention programme has been designed using the PERMA model as a framework. Thus, various constructs are included within the programme that have a focus on one or more of the PERMA aspects. Fostering Positive emotions is important to broaden and build students resources to handle difficulties that occur in their personal and academic lives (Brunzel et al., 2016; Chu, 2020). The aspect of Engagement highlights strengths within the students that they can employ to handle difficult tasks. The Relationships element enhances interactions between the student and those around them. Through the Meaning element, students become aware of what they value and can use their strengths to live purposefully (Brunzell et al., 2016). Accomplishments aspect can allow students to be aware of their potential to grow despite challenges (Brunzell et al., 2016).

The Positive Psychology Intervention Programme

General Structure of the programme:

The programme consists of 7 sessions with each session lasting approximately 90 mins. These sessions would be offered on a weekly basis and hence would last approximately 7 weeks. The final session would include wrapping up the entire programme, with the students commenting or sharing what they have gained or learned from the programme. The table 1 below summarizes the sessions' main themes, objectives, content, activities and PERMA focus.

Table 1:

Structure of the PPI programme

Week	Theme/ Positive Psychology Construct	Objectives	Session Content	Activities	PERMA Focus
1	Introduction to Positive Psychology	<p>Establish rapport amongst the participants</p> <p>Understand the foundation of the PPI programme</p>	<p>Getting acquainted and format of the programme</p> <p>Setting group norms, discussion on confidentiality</p> <p>Introduction to Positive Psychology</p>	<p>-Within session exercise: Mindfulness activity to focus on the present - body scan (Brunzell et al 2016; Rogers & Maytan, 2019)</p> <p>-Homework task: Daily practice of the mindfulness activity</p>	PERMA
2	Gratitude	<p>Understand the role positive emotions play in improving our well-being</p> <p>Understand the benefit of practising gratitude</p>	<p>Introduction to the concepts of Positive emotions and gratitude</p>	<p>-Within session Exercise: The “three good things” exercise -but keeping it specific (Lyubormisky, 2005)</p> <p>-Homework task: the three</p>	P, R, M

				good things exercise	
3	Strengths	Understand the value of knowing one's strengths Identify one's strengths	-Introduction to the concept of Engagement Identifying strengths	-Within session Exercise: Identifying strengths exercise -Homework task: utilizing strengths	P E R MA
4	Positive Relationships	Understand the value of positive relationships Identify ways to build and deepen positive relationships	-Introduction to the concept of Positive Relationships -Active constructive responding (Gable, 2013) -Introduction to Prosocial behaviours	-Within session Exercise: Positive Feedback Exercise -Homework task: Act of Kindness	P, E, R, M
5	Dealing with stress	Understand what stress is, different signs of stress Identify different signs of stress	-Defining stress -Identifying signs of stress -Ways to deal with stress -Dealing with Automatic Negative Thoughts	-Within session task: Getting rid of Automatic Negative Thoughts -Homework Task: Incorporating an	P, E

		Identify ways to cope with stress		activity that helps them cope with stress and relax	
6	Resilience	Understand the meaning of Resilience Understand how to develop resilience	-Describing resilience -Developing resilience	-Within session exercise: Growth mindset -Homework Task: My life history of success	P, M, A
7	Meaning	Understand the value of a meaningful life Identify own values	- Introduction to the concept of Meaning and Values - -Feedback and Evaluation of Sessions	-Within session exercise: Identifying values Goal setting -Homework Task: Implement a meaningful activity everyday	P, M, A

General format of each session:

The sessions will follow the same general format:

15 mins: Introduction: Welcoming the group back and Icebreaker

15 mins: Feedback on Homework Task and discussion

20 mins: Theme of the week

20 mins: Within session exercise

10 mins: Homework Task

10 mins: Wrapping up the session

However, the format is a general guideline and each session may be modified depending on the objectives of the session. For instance, the first session may require some more time in the introduction session as the students get to know one another. The final session as well will include a section, towards the end, to wrap up the entire programme.

What the programme is not:

Positive Psychology is not a remedy for every existing problem that one faces, including serious mental illnesses and addiction. Thus, though this programme hopes to improve well-being, it is not to be thought of as a solution to all that ails a student. Additional resources and support, for instance seeking counselling, should be encouraged if need be.

The programme should also not be regarded as therapy or group counselling. It offers to provide participants with interventions that they can willingly implement to help boost their well-being.

What would be needed in the sessions:

- Flip chart, markers and paper
- Pen and notebook
- an attendance sheet (blank paper for noting down attendants' names)
- Tables and chairs
- Blank notebooks to hand to the participants in the first session
- Projector, podium, laptop with PowerPoint presentation (optional)

The Positive Psychology Intervention Programme Sessions

Session 1: Introduction to the Positive Psychology Programme

Facilitators Instructions: Welcome the group and thank them for their willingness to be a part of the programme. Take the participants through the objectives of the session followed by an icebreaker session to help them get more acquainted with each other and to encourage them to engage. It will be helpful to take note of the participants' names in the group. Note down expectations on the flip chart. Provide the participants with notebooks and encourage them to use them, especially for the homework tasks.

20 mins: Introduction: Getting acquainted, Icebreaker and Setting group norms

Getting acquainted: Welcoming the group, objectives and ice-breaker

Thank you for taking the time to be a part of this programme! I believe it will be a fruitful time together. The objectives of this first session are:

- Get to know each other
- Introduce you to the positive psychology intervention programme and the PERMA model
- Set group norms

Before we jump into learning what the programme is about, let us briefly get to know each other. We will become better acquainted as the weeks go by. However, today's ice-breaker is to get to know a little bit about the other participants in this group.

Please sit in groups of two or three and (i) introduce yourself to the other small group members and then (your name and area of study) (ii) share one thing that you really love to do and why (iii) one expectation you have of the programme. Afterwards, you will get back together

and will take a few minutes to introduce one person from their whose name they learned, what they love to do and their expectations to the entire group.

Setting group norms

Now that we have noted down our expectations, it would be best to consider what conditions would help to meet these expectations. For instance, being punctual would help us start and finish the session's objectives on time. What are other group norms or rules that you would like us to note down that would help the sessions run smoothly?

Facilitator's instructions: Note down on the flip chart the group norms shared by the participants. Some group norms you may add include: punctuality, open-mindedness, commitment, participation and mutual respect. Have the flip chart visible in the other sessions as well.

Confidentiality within the group

Unfortunately, ensuring confidentiality is not possible within a group session. With this in mind, kindly be mindful of what you choose to share within this group setting. It would be preferable not to disclose other members' personal information without their permission just in the same way you would hope the other members do not disclose your personal information to others outside of the group.

15 mins: Introduction to the Positive Psychology programme: Purpose and Format

As a first-year student, it is understandable that it can be an exciting but also a challenging time. You are trying to adjust to being in a new environment as well as handle different responsibilities. Sometimes the challenges can feel overwhelming and they may affect

your well-being. This may lead to outcomes such as decreased academic performance but also dissatisfaction with life. In this programme, you will learn what positive psychology is and the different activities that you can engage in to help improve your well-being. We will focus on the areas of gratitude, strengths, positive relationships, handling stress, resilience and meaning”.

Each session will cover a different aspect of positive psychology. There will be an activity to complete within each session and at the end of the session, you will be asked to complete a certain activity as a homework task. At each session you will be informed of session’s objectives and with time the format will become easier to understand. At the end of the 7-week programme, you will be asked to complete the same measures you had completed before the start of the programme.

20 mins: What is Positive Psychology? and Introduction to the PERMA model

What is Positive Psychology?

For a long time, the focus in psychology was quite “unbalanced” due to a strong focus on treating mental illness.

Positive psychology developed as a reaction to this. Positive psychology attempts to restore this balance and is the study of optimal human functioning. What this means is that it is the study of the factors that help people live well and thrive as individuals and in their communities.

Positive psychology looks into the various factors/ activities that can help one flourish. Some of these areas of research have included: Happiness, Strengths, Resilience, Forgiveness, Gratitude, Purpose and Optimism, Hope.

A common incorrect assumption/ misunderstanding is that positive psychology is a denial of negative or unpleasant parts of life; that it simply encourages one to be positive and to ignore the difficulties that one is going through. However, this is a false assumption as positive psychology acknowledges we all experience challenges and does not try to deny the negative aspects or the negative emotions that one may go through.

What is the PERMA model of well-being?

Martin Seligman, one of the co-founders of positive psychology suggested the following components, under the acronym 'PERMA', that contribute to well-being. PERMA stands for

- **Positive Emotions:** refers to deriving enjoyment from one's activities and includes feeling such as gratitude, inspiration, peace and joy.
- **Engagement:** refers to being completely immersed or absorbed in activities and taking a keen interest in the task at hand. It involves identifying one's strengths, utilising and building them by applying them in our daily lives
- **(Positive) Relationships:** refers to being authentically connected to others
- **Meaning:** refers to experiencing a purposeful existence through one's activities
- **Accomplishment:** refers to achievement at the highest possible level and a sense of success in a particular domain

In the coming weeks, we shall be focusing on these aspects and related themes and activities.

20 mins: Exercise and discussion: Body scan: A mindfulness activity to focus on being present

Facilitator's instructions: Ask the participants to sit as comfortably as they can and to close their eyes to help them stay focused on the exercise. Take the participants through the body

scan script from Rogers and Maytan (2019, p. 77-78) handbook 'Mindfulness for the Next Generation'. The script can be found in the appendices section. Emphasize to the participants that the focus is not doing the exercise perfectly without distraction. Once the activity has been completed, ask the participants to give their feedback on how they experienced the activity.

As a student, there may be many things on your mind that are fighting for attention or causing anxiety. The body scan is a meditation activity where the mind is guided to focus on different parts of the body. If you get distracted during the exercise, you gently refocus your mind back to the attention of the different body parts.

Facilitator's instructions: Once the activity has been completed, ask for a few volunteers to give their feedback on how they experienced the activity.

10 mins: Homework Task: Body Scan exercise

Each day for the next week, please practice the Body Scan exercise that we completed and note down your experiences of completing this activity in your notebook.

10 mins: Wrapping Up:

Conclude with the following closing questions:

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify them of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 2: Introduction to Positive Emotions and the topic of Gratitude

Facilitator's Instructions: Address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Once concerns and questions have been addressed, engage the participants in an icebreaker. Note down participants' experience of the homework task.

15 mins: Introduction: Welcoming the group, Outcomes and Icebreaker

Welcoming the group

Welcome to the second session! Do you have any questions or concerns that you would like to be addressed before the start of today's session?

Outcomes:

By the end of this session, you will:

- Understand the role positive emotions play in improving our well-being
- Understand the benefit of practicing gratitude

Icebreaker:

On the PowerPoint presentation are some images of faces showing different kinds of emotions. Which emotion/ feeling do you think is represented by each image?

Facilitator's instructions: Remind the participants that there is no right or wrong answer for the ice-breaker task. You can point out that though sometimes it can be easy to guess what someone is experiencing through their facial expressions, we may not always be certain and sometimes our perceptions may be different.

15 mins: Feedback on Homework Task and discussion:

-How was your experience of implementing the Body-Scan activity on a daily basis?

-Was it easy or challenging to do the activity every day?

-Would it be an activity you can incorporate into your routine?

Facilitator's instructions: Note down the feedback received from the participants. Ask them to share their ideas of what could help make the task much easier to incorporate into one's routine.

20 mins: Topic on Positive Emotions and Gratitude:

Positive Emotions

As we discussed in the last session, positive psychology is the field within psychology that is interested in the study of how people live well. Within Positive Psychology, the study of positive emotions has been an area of interest. Barbara Fredrickson (2013), a key researcher in the study of positive emotions noted ten key positive emotions that one may experience. These include joy, gratitude, serenity, pride, interest, amusement, inspiration, hope, awe and love.

Experiencing positive emotions is not just about momentary good feelings. They can have long lasting effects and thus contribute to our well-being in the long-term. Fredrickson (2013) noted that positive emotions are useful for broadening one's attention and thinking and building personal resources. These resources include:

- Intellectual resources such as problem-solving skills and helping one acquire new information;
- Social resources such as strengthening bonds and creating new bonds;
- Physical resources such as; physical skills and cardiovascular health;
- Psychological resources such as resilience and optimism.

Think of a child playing with outside with other children. As they are having fun in the moment, do you notice that the positive emotions are linked to gaining the above resources? *(Allow the group a few moments to reflect on this).*

Recall and relive in your mind a time when things were going so right that you felt so good. Briefly describe the pleasant experience. Where were you? Who were you with? What happened? As you relive this joyful time, let the feelings grow.

Facilitator's instructions: Ask if there is one or two participants who would like to share their pleasant memory and what reliving it made them feel. You may point out to the participants that one does not have to wait for a positive circumstance to happen but one can also recall a positive emotion so as to create positive emotions.

What about Negative Emotions? They are a normal part of life. As mentioned in the last session, positive psychology is not a denial of negative, unpleasant distressing parts of life. In the early days of mankind, negative emotions solved problems of survival. For instance, 'anger' was to help create the urge to attack, 'Fear' so as to help escape danger and 'Disgust' for the urge to expel something that may be harmful (like rotten food).

How may one increase their positive emotions? Through gratitude:

"Gratitude is the habit of noticing and being appreciative of what is good in one's life (Wolf et al., 2010). It may seem like a simple act but evidence has shown that it can have an impact on your resilience, productivity and life satisfaction (Davis et al. 2016). It also helps boost those positive emotions that we mentioned earlier and increase feelings of happiness (Dickens, 2017). As a first-year student, are there things you are grateful for?

But what if we are not feeling "grateful" and do not feel there is much to be grateful for? Perhaps adjusting to university life is proving to be more of a struggle than you expected? You

may be feeling angry, bitter or perhaps resentful as the experience may not be what you had hoped. But the benefits of practicing gratitude make the act worth implementing. It does not have to be what one may consider as “big” things, it could even be “I am grateful, the sun is shining today”. What are other things could you be grateful for? It could be people in your life or even things/ objects. It could also include experiences or non-tangible things such as the breeze that cools you down on a hot day.

20 mins: Gratitude Exercise and discussion: Three Good things you are grateful for

Write down three things that you are grateful for today and why.

Discuss in pairs (or groups of three depending on the group size) those things you noted down,

This gratitude exercise helps you to reflect on the things that happen in the day. The more you actively engage in it, the more things in your day that you will start to notice and add to your list.

Facilitator’s instructions: Once the activity has been completed, ask for a few volunteers to give their feedback on how they experienced the activity.

10 mins: Homework Task:

Write down each day and for the entire week, three good things that you are grateful for.

Facilitator’s Instructions: Discuss ways with the participants, that one can incorporate this activity to make it a habit such as doing the task at a specific time each day.

10 mins: Wrapping up the session

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?

- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify the participants of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 3: Introduction to Engagement and the topic of strengths

Facilitator's Instructions: Welcome back the group and address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Allow the participants to give feedback and note their experiences down.

15 mins: Introduction: Welcoming the group and Icebreaker

Welcoming the group

Welcome to the third session! Do you have any questions or concerns you would like addressed before the start of today's session?

Outcomes:

By the end of this session, you will:

- Understand the value of knowing one's strengths
- Identify your strengths

Icebreaker:

Share one thing you feel good about (or are grateful for today) and why.

15 mins: Feedback on Homework Task and discussion

-How was your overall experience of implementing the “three good things” activity?

-Was it easy or challenging to do it every day? Could you please share more on that?

-What worked best for you?

-How did you feel before doing the task and after doing the task?

Facilitator’s instructions: Note down the feedback received from the participants. Ask them to share their ideas of what could help make the task much easier to incorporate into one’s routine.

20 mins: Topic on Engagement and Strengths

Last week we spoke about the importance of positive emotions in improving our well-being or contributing to a life-well lived. But there is more that plays a role in our well-being. Today we will look at ‘Engagement’. It is still about you and the things you enjoy but it goes beyond feeling good in the moment. Engagement is a “psychological state in which individuals report being absorbed by and being focused on what they are doing” (Forgeard et al., 2011, p.84). It refers to your involvement in the activities that make up your daily life (studies, sports, hobbies, leisure activities, family/friends). Think of a time you felt completely absorbed in an activity? As you reflect on this, would you use words or phrases such as “engaged”, “involved”, “absorbed”, “energized”, “focused”, “motivated”, “interested” or “in the zone” or “it felt like time stopped” to describe that moment? Those words are often used to describe a state of “Flow”.

“Flow” is the term used to describe that state of having that balance between skill level and challenge. It refers to being completely involved in an activity that is gratifying but also

requires effort. You have probably seen it in others as well. Perhaps a sports player who is so involved in the game that he seems to forget there is an audience watching? Or a drummer on his drum set, completely absorbed in the music he is making? Perhaps you have experienced it while cooking or drawing?

How do we get this sense of engagement or flow? This involves using our strengths. We all have strengths but may not be aware of them. There is a misconception that strengths will develop naturally and that we should be focusing on our weaknesses. But strengths need to be developed as well. Spending most of your time in your area of weakness- while it will improve your skills, perhaps to a level of ‘average’-will not produce excellence (Schreiner, 2009). According to Clifton and Harter (2003, p. 112) “individuals gain more when they build on their talents, than when they make comparable efforts to improve their areas of weakness”.

Ever found yourself tongue-tied when asked what your strengths are? Or does it take a bit of time to really figure out what they are? Now consider what strengths your closest friend or mentor possesses? Was that much easier than considering your own? More often than not, we find ourselves much more able to list others’ strengths and struggle to name our own. Many times, we may not give our strengths a second thought as we may view them as “ordinary” or take them for granted. However, considering our strengths can have several benefits. Knowing and using our strengths helps us to refocus, motivates us and help us consider ways we can be of help to others.

How can we discover our strengths?

We have seen that knowing one’s strengths could be valuable. But how do we go on about discovering our strengths? There are several questionnaires available on the internet that

focus on this. The Values in Action assessment (VIA) is a particularly useful assessment and may be a good place to start (<http://www.viastrengths.org>).

It features 24-character strengths and is grouped into 6 categories/ virtues. These virtues are accepted universally as desirable positive traits.

Facilitator's instructions: Take the participants through the slides with the definitions of each of the strengths. Ask them to note down the strengths that apply to them as you go through the different strengths.

Below are the 6 virtues and within each category, the associated character strengths (viacharacter.org):

- i) Wisdom: creativity, curiosity, open-mindedness, love of learning, perspective
- ii) Courage: bravery, persistence, authenticity, zest
- iii) Humanity: love, kindness, social intelligence
- iv) Justice: teamwork, fairness, leadership
- v) Temperance: forgiveness and mercy, humility and modesty, prudence, self-regulation
- vi) Transcendence: appreciation of beauty and excellence, gratitude, hope, humour, spirituality

20 mins: Exercise on discovering strengths and discussion

Take a look at the strengths you identified and narrow down to your top 5 strengths.

In groups of two or three, share with each other the strengths you identified and how you use them in your day to day lives.

- How was it to identify your strengths?
- How do you use these strengths in your daily life?"

10 mins: Homework Task

Now that we have more clarity on our strengths, your task for the next week is to utilize at least one of your strengths on each day of the coming week. You could also complete the free survey on www.viastrengths.org

10 mins: Wrapping up the session

Conclude with the following closing questions:

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify the participants of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 4: Positive Relationships

Facilitator's Instructions: Welcome the group back and address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Allow the participants to give feedback and note their experiences down.

15 mins: Introduction: Welcoming the group and Icebreaker

Welcoming the group

Welcome to the fourth session! Do you have any questions or concerns you would like to address before the start of today's session?

Outcomes:

- Understand the concept of Positive Relationships
- Understand the value of Active constructive responding (Gable, 2013)
- Understand the value of prosocial behaviours

Icebreaker: Share something that made you smile this week?

Please reflect on the last week and share with each other an event, situation, thing or person that made you genuinely smile. Why did it make you smile?

15 mins: Feedback on Homework Task and discussion

- How was your overall experience of utilizing your strengths in the last week?
- Was it easy or challenging to do it every day? Could you please give an example?
- What worked best for you?
- How did you feel while doing the task and after the task?

Facilitator's instructions: Note down the feedback received from the participants. Ask them to share their ideas of what could help make the task much easier to incorporate into one's routine.

20 mins: Topic on Positive Relationships

In the last session, we focused on identifying our strengths and utilizing our strengths. In this session, we will look at 'Positive Relationships' and the role that those positive relationships have to play in boosting our well-being. When referring to relationships we will be considering positive relationships beyond romantic relationships. Therefore, relationships with family, friends and peers are also considered. Before we dive deeper, I would like to hear from you. Do you find relationships valuable? Which relationships mean the most to you and why?

(Facilitator's instructions: Allow participants a minute or two to give feedback. Thank them for their contributions)

Positive relationships refer to those relationships where you feel cared about, supported and satisfied with social connections. You may have heard the quote "No man is an island" (by Jon Donne). What it means is that we as human beings rely on each other. There is interdependence; our lives are intertwined. The African ethical philosophy of *Ubuntu* captures the value of relationships. The Zulu saying that describes Ubuntu is "*umuntu, ngumuntu, ngabantu*" and this can be translated to mean "I am because we are" (Ewuoso & Hall, 2019). Ubuntu recognizes that "one's humanity is expressed through one's relationship with others, and the humanity of others is in turn expressed through recognition of the individual's humanity" (Ewuoso & Hall, 2019, p.96).

However, forming close relationships is not always easy. Joining university could mean moving far from family and friends and having to make new friends at the university. During this

transition, it is quite normal to feel lonely as you try to establish new relationships. Do you find this to be true?

(Facilitator's instructions: Allow participants a few moments to respond)

Active Constructive Responding:

Perhaps there are relationships that we would like to build or deepen. How can we go on about building close relationships? One way is by Active Constructive Responding which is a technique that allows one to enthusiastically respond in a supportive manner when someone shares a positive experience (Gable, 2010; Gable, 2013).

Let us consider the following scenario: Imagine that you have a roommate who tells you that they have passed a difficult class assessment. There are different ways that you may respond. One could be Active-Destructive where you respond along the lines of “But you did not pass the other assessment. Don’t you think that will affect your final results?”. An Active-Destructive response is negative and ends up taking away the joy of that moment. Another common response is Passive-Destructive where you overlook the positive event and you may say something along the lines of “Did you buy groceries?”. This ends up hijacking the conversation and focusing on something you want. You may also respond in a Passive-Constructive manner “Okay. Nice.” which ends up being dismissive and a conversation-killer. Such a response does not acknowledge the other person’s positive emotions.

A more positive response, which is contrary to the above responses, is an Active-Constructive response. This response would sound something like “Oh that’s great, I am proud of you! I know how hard you worked for this and you mentioned it was a difficult assessment. When did you get your results? Tell me how it was when you got your results.” Do you note a

difference in these types of responses? Have you experienced these kinds of responses before and how did you feel about them? It has been shown that Active-constructive responses can help build trust and make a relationship stronger (Gable, 2013).

Even though we may not realize it, our body language communicates a lot. It communicates how much we value the other person. Another way we can show someone we care is by using a technique called “Reflection”. With reflection, firstly you are paying attention to the verbal content (what the person is actually saying with their words) and the non-verbal content (what you their body language is communicating). With reflecting, you summarize what the other person has communicated (their thoughts/feelings) and what you pick up from their non-verbal communication (body language, facial expression, tone of voice etc.). For instance, “It seems you are quite upset that you stood queuing in line to register for the semester units and ended up being late for class”. Reflection gives the other person a chance to correct and deepen your understanding and communicate to them that you have heard and understood them.

Prosocial Behaviours;

Think of a time when someone did something for you that benefited you and they did not ask to be rewarded for it. Can you think of some examples? Perhaps you got home late and found your roommate has started preparing supper? Or perhaps someone gave you directions when you were feeling lost? Maybe someone listened to you when you wanted to express how you were feeling. These are just a few examples of what is referred to as “Prosocial behaviour”. Prosocial behaviour is any behaviour that benefits someone else (Dunfield, 2014). The aim of this is to help meet a need of someone else. And these needs do not have to be physical needs. As mentioned above, it could also mean taking time to help someone in distress by listening.

20 min: Positive feedback exercise

(Facilitator’s instructions: Ask the participants to form two small groups and sit in a circle.)

You have spent a few sessions with each other. Based on what you have observed so far or learned from or about each other, give one positive feedback statement to the person sitting to your left. Take a moment to reflect first and then proceed. The activity should continue until each person has had a chance to give and receive positive feedback.

- How did it feel to give positive feedback?
- How did it feel to receive positive feedback?
- What did you learn from this exercise?
- How can you use what you have learned from this exercise to help build more positive relationships with others, and especially those close to you?

10 mins: Homework activity

Each day for the coming week, engage in an act of kindness (prosocial behaviour). Note down what you do and how it feels for you.

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify the participants of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 5: Dealing with Stress

Facilitator's Instructions: Address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Once concerns and questions have been addressed, engage the participants in an icebreaker. Note down participants' experience of the homework task. Allow the participants to give feedback and note their experiences down.

15 mins: Introduction: Welcoming the group and Icebreaker

Welcome to the fifth session! Do you have any questions or concerns you would like addressed before the start of this session?

Outcomes:

- Understand what stress is
- Learn how to manage stress

- Dealing with Automatic Negative Thoughts (ANTS)

Icebreaker: Please share one positive thing you do that really helps you to relax

15 mins: Feedback on Homework Task and discussion

- What are some examples of how you showed kindness to others?
- How did it feel to you? How did they respond?
- What did you learn from this and how can you apply what you learned in the future?

20 mins: Topic on Dealing with stress

Last week we looked at building positive relationships. Today, our focus will be on stress, more specifically, what stress is, identifying signs of stress and learning ways to help us deal with stress.

What is stress? Stress is how an individual responds to circumstances they perceive to be straining their coping abilities. Stress has two components; it is both a mental process and a physical process. Mental stress has to do with negative emotions that arise when you perceive a stressor (the aspect in your environment that causes stress for instance a person, an object, an assignment etc.). How we *perceive* a stressor is important as it means one individual may perceive a stressor as overwhelming while another one may view it as manageable (Porter & Goolkasian, 2019). The physical part of stress is how the body reacts to something perceived as stressful. Stress hormones are released in the brain and may cause your heart rate to rise and digestion to pause as your body tries to prepare itself for the stressor. Sometimes mental stress can happen without the physical symptoms or one can experience the physical symptoms of stress without the negative emotions (mental stress).

As first-year students, there may be moments when you feel stressed and perhaps struggle with the pressures of being a student. Prolonged stress, where you experience negative emotion

and fear or feel overwhelmed, can be harmful over the long run and affect your performance and health. I would encourage you to seek help if you experience this. However, some stress can actually be positive! For instance, the stress that may come from facing a challenging situation but with a certain level of excitement too as the situation allows you to use or develop skills and resources. Joining university may have been such a situation where even though there may have been some amount of stress, it may also have been exciting to move to a new environment.

Signs of Stress

There are different signs of stress that one can experience: physical, emotional, mental and behavioural. Physical symptoms can include: headaches, fainting, tiredness, weight gain/loss, feeling sick, skin irritation and nausea. Emotional symptoms can include: irritability, anger, de-motivated, tension, feeling emotion, low self-esteem. Mental symptoms can include: struggling to concentrate, worrying, poor decisions or impulsive behaviours, overthinking; and Behavioural symptoms can include: loss or increase in appetite, substance abuse, lying, withdrawal and restlessness.

Individuals respond differently to stress. For instance, one may find that when they are stressed, they tend to cry a lot. Another person may respond to stress by eating a lot or spending a lot of time on social media. What signs and symptoms of stress do you experience most often? How do you normally manage these symptoms?

(Facilitator's instructions: Note down what they say and ask them if they relate to what another has said or if it is different from them. Point out that at times how we respond to stress can be different for each individual)

What then can we do to manage stress?

- Relaxation techniques– taking a few minutes to take some deep breaths or practice the body scan to relieve tension held in the muscles.
- Exercising: It does not have to be an intense activity. Choose an activity that suits your preferences. Taking a short walk or dancing to your favourite music could be effective.
- Spending some time in nature can also help to relieve stress.
- Having a support system – having people you can share your emotions and concerns with
- A healthy lifestyle – incorporating more nutrients in our diet and having a regular sleep schedule
- Take some time to reflect on the root cause (e.g., financial struggles, loneliness or an assignment) of the stress symptoms you are experiencing could help you think of the steps to take to solve it such as seeking support (National Health Service, 2020)

Dealing with Automatic Negative Thoughts (ANTS)

Did you know that your thoughts affect how you feel about a situation? At times we have those immediate automatic negative thoughts (ANTS) that affect our feelings and behaviours. For instance, you may find yourself late to class and the teacher stops his class to ask you why you are late. A thought that may occur is “I am such a bad student being late”. As you take a seat, you may experience a feeling of guilt or shame. This may then lead to avoiding speaking up and participating in a class. How we think, has an impact on how we feel and behave. Our thoughts may also affect how we respond to stressful situations. So, what can we do with these ANTS? You can change them to an adaptive thought which will then improve your feelings and help you implement more positive behaviour. With the example above, an adaptive thought

could be “I underestimated how long it would take to get to campus. But next time, I will leave home earlier.”

20 min: Getting Rid of ANTS Exercise (Positive Psychology.com)

In the example above, being late for class was what triggered an automatic negative thought. List down at least 4 to 5 common triggers you may have that may lead to ANTs. Preferably situations you have encountered before. Work together to determine adaptive thoughts that would have more of a constructive outcome than the ANT.

You can organize this in columns such as:

Trigger	Automatic Negative Thought	Adaptive Thought
1)		
2)		

Facilitator’s instructions: Guide the participants through the exercise and offer a few examples if the participants are struggling with the exercise. Once the activity has been completed, ask for a few volunteers to give their feedback on how they experienced the activity.

10 mins: Homework Task:

Choose a positive activity that helps you to relax and incorporate it each day during the coming week. If you would like to, you could also track ANTs and note down ways of changing them to more adaptive thoughts. Note down what you do and how it feels for you. Also consider what ways your character strengths (as identified in the session on “Engagement”) could help you cope with stressful situations.

10 mins: Wrapping up the session

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify the participants of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 6: Resilience

Facilitator's Instructions: Welcome the group back and address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Allow the participants to give feedback and note their experiences down.

15 mins: Introduction: Welcoming the group and Icebreaker

Welcome to the sixth session! Do you have any questions or concerns you would like addressed before the start of this session?

Outcomes:

- Understand the meaning of resilience
- Understand how to develop resilience
- Explore own ways of dealing with hardships

Icebreaker: Please share one thing you are looking forward to.

15 mins: Feedback on Homework Task and discussion

- What activity did you incorporate into your daily routine to help you relax?
- Did some of the activities involve the use of your character strengths?
- How did it feel for you to do so? Did you find the homework task easy or challenging?
- What did you learn from this and how can you apply what you learned in the future?

20 mins: Topic on Resilience

As mentioned in the beginning, positive psychology does not ignore that we also experience difficult times and negative emotions. Today we will be looking at the concept of “Resilience”; what it means and ways we can develop resilience to deal with hardships that we face in our lives. Whether it is losing a loved one, experiencing financial struggles or not getting the grade you wanted, everyone goes through hardships in some form or the other. Resilience refers to bouncing back after facing moments or periods of failure or disappointments (Ledesma, 2014).

Many, (if not all) of us, can recall moments that knocked us down and we felt completely defeated and unwilling to keep going on. You may have at times felt reluctant or unable to pursue goals after experiencing a challenge. Resilient people are not those who are unaffected by difficult circumstances or those who do not show that they are experiencing negative emotions. Resilience is not about ignoring the difficult and challenging moments that happen at some point to all of us. It has more to do with how we positively adapt to hardships. This could mean learning how to boost positive emotions (or manage negative emotions) or maintaining optimism and finding the silver lining in a difficult situation.

Developing Resilience:

Why is it important to develop resilience? As a first-year student, navigating the transition to university may have its challenges. Greater resilience has benefits such as improved academic achievement and learning, reduced risk-taking behaviours, lower absences from school and more involvement in the community (Miles, 2015). Resilience also has a great impact on our health by reducing depressive symptoms, increasing the experience of positive emotions, regulating negative emotions, boosting immune functioning, and helping us cope better with stress by having a positive orientation and improving problem-solving (Khosla, 2017).

How do we become resilient? Here are some 10 ways suggested by the American Psychological Association (APA, 2012):

- Prioritizing relationships helps increase social support during difficult times
- Join a group; being part of a group can bring a sense of support and purpose
- Taking care of yourself through exercising, sleeping and eating well will help you cope better with stressful situations
- Practicing mindfulness such as through meditation or prayer or journaling what you are grateful for can help build hope
- Avoid using harmful outlets such as drugs or alcohol to cope with stress
- Volunteer or helping others in need may help you develop a sense of self-worth and purpose
- Developing problem-solving skills through strategies such as making a list of potential ways to solve a current issue
- Establish reasonable goals and break them into manageable steps that will move you one step closer in the direction you want to head

- Lookout for personal growth that has been a result of struggle. This can help boost your sense of self worth
- Adopt a more realistic way of thinking as how we interpret stressful events can affect how we feel and cope
- Accepting that some situations cannot be changed can help you focus on those things that are more in your control
- Keep hope alive: being optimistic helps you be on the lookout for good things
- Learn from past experiences: this will help you identify your strengths and what helped you cope in difficult times as well as how you can apply that to future experiences

Resilience is an important survival skill and the good news is that it is not reserved for a special few. We all can develop it.

20 mins: Within session exercise: Growth mindset

Another way we can develop resilience is by adopting a growth mindset. It is possible to have either a fixed mindset or a growth mindset. Having a ***fixed mindset*** means believing our own skills or intelligence cannot change. With a fixed mindset, one may give up easily when facing obstacles or setbacks. But with a ***growth mindset*** this is when you believe that our abilities can change when we apply effort and practice. Someone with a **fixed mindset** may say “I am just not good at learning” while someone with a **growth mindset** sees their brain as a muscle that is capable of growing. As we try new things or challenge ourselves, our brains can grow. Just like how exercise grows our muscles, our brains with constant practice can also grow. Changing our language from “I can’t” to “Not yet” is adopting a growth mindset.

In pairs or groups of three, take some time reflecting and thinking of something that you thought was very difficult to tackle in the beginning but over time and with effort, got easier to accomplish. For example, it could have been learning a language, a skill (e.g. cooking or dancing) or a subject. Share what the experience was and what the experience taught you.

Once done, share aspects of what you have answered.

- How was your experience of the exercise?
- What did you learn from the exercise?
- How can you use what you have learned from this exercise?

Facilitator's instructions: Once they are done with the task, remind the participants that they are resilient individuals and that they can use the exercise above to help develop resilience in future challenges.

10 mins: Homework Task: My life history of success

Your being here is proof of success. You may not always think about it but there have been many things you have faced in your life that have led you to be here right now. I would like to invite you to pause and think about your life history. In the coming week, please make a list of all the things you can think of where you have been successful. This does not mean only academic performance; it could be even how you handled or pulled through stressful or difficult situations. Here is a list below that you can continue filling in:

-My Life history of success:

- 1) I made it through Secondary Education and now I am a first-year student
- 2) I made it to this sixth session on positive psychology
- 3).....

10 mins: Wrapping up the session

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- Are there any questions you have about the session or the other coming sessions?
- What is one thing from this session that you will take home with you?

Facilitator's Instructions: Thank the participants for joining the session and notify the participants of the venue, date and time for the next session. Give a brief overview of what the next session will cover. Remind the participants to carry their notebooks to the next session.

Session 7: Meaning

Facilitator's Instructions: Address any questions and concerns and involve the other group members where applicable. Briefly remind them of the group norms. Once concerns and questions have been addressed, engage the participants in an icebreaker. Note down participants' experience of the homework task. Allow the participants to give feedback and note down their experiences.

15 mins: Introduction: Welcoming the group and Icebreaker

Welcome to the seventh and final session! Do you have any questions or concerns you would like addressed before the start of this session?

Icebreaker: At this moment, what would you say is the most important thing for you?

15 mins: Feedback on Homework Task and discussion

The last week's homework was to write about a challenging situation that you faced that you had to overcome and your thoughts and feelings after you were successful in overcoming the situation.

- How did you feel while doing the task and after the task?
- Was there anything that stood out for you as you wrote down your experience?
- What did you learn from this and how can you apply what you learned in the future?

20 mins: Topic on Meaning

Last week's theme was 'Resilience'. In this final session, we will look at 'Meaning and Purpose'.

Meaningfulness in psychology has been understood in different ways. For instance, Martin Seligman, the founder of Positive Psychology, noted the element of service when he described meaning as "belonging to and serving something bigger than the self" (Seligman, 2011, p 17). Meaningfulness has been viewed as consisting of three different components: coherence, significance and purpose (Heintzelman & King, 2014).

- Coherence: how we understand our life.
- Significance: whether we find our life has value and is worth living.
- Purpose: has to do with the aspirations or goals we have in our lives.

These three components contribute to meaningfulness. However, meaning in life is different for each person.

Engaging in meaningful activities or living a meaningful life has been found to have several benefits such as happiness, life satisfaction, general well-being and social closeness (Steger & Kashdan, 2013).

20 min exercise: Values exercise

An understanding of what really matters to us is important to be able to live a meaningful life. Values are those things which we consider important to us. Take 5 minutes to note down what your values are:

1. My values are:

Have a look through the core values list (appendix C) and see if any values on the list resonate with you.

Facilitator's instructions: Ask them to take 5 minutes to choose from this list 5 values they would like to add to their own list that they believe are most important to them

In groups of three, discuss what one or two of the values you have chosen means to you.

- Value:
- Means to me:
- It is important to me because:

Share with the larger group some of the values you noted down.

10 mins: Homework Task:

Every day for the coming week, choose one activity to implement that is meaningful for you and commit to doing it. This can be an activity carried out alone (e.g., reading or cooking) or completed with others (e.g., sports or charitable services). You can also choose to be of service to identify someone who is going through a challenging time and find ways to be there for them.

10 mins: Wrapping up the session

Conclude with the following closing questions:

- What are your thoughts and feelings about the session?
- Was there anything that stood out for you in the session? Was there something new you learned?
- What is one thing from this session that you will take home with you?

-

20 mins: Closing ceremony

Facilitator's instructions: This final part is focused on reviewing the different aspects within the programme and the activities they completed. Participants are given the opportunity to share their general experience of the programme, what stood out for them and how they would incorporate what they learned in their lives.

Well done for taking the time to learn about positive psychology and on implementing the new skills into your daily life. We have made it to the end of the 7-week programme. However, we would urge you to continue implementing what you have learned. Before we conclude, kindly share:

- What was your experience of the programme in general?
- Was there a specific session or activity that stood out for you?
- Was there something new you learned or would like to try?

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Appendices for the Facilitators' Manual:

Appendix A: Body Scan exercise

Body Scan from the Mindfulness for the Next Generation Handbook (Rogers & Maytan, 2019, p.77-78)

In our guided meditation today, we'll be focusing our attention on different body sensations. Today we will use the sensations in our body to help anchor our awareness to our present-moment experience.

You will find that your mind frequently wanders from your anchor, which is also known as the "object of meditation." See if you can notice when your mind has wandered and without making judgments about yourself or your ability to do this, gently bring your attention back to the sensations in your body.

It is the nature of the mind to think, and we're not trying to stop the mind from thinking. We're just training the mind to focus better by learning to notice when it has wandered away and gently bringing it back, over and over to our present-moment experience.

[pause]

Let's again get into our meditation position. Let your feet rest on the floor, hands resting in your lap, eyes closed. See if you can keep your spine straight while your muscles relax around it. Listen for the sound of the bell...

[pause]

Let's begin by bringing our awareness to the bottom of our feet as we notice the feeling of our feet resting against the floor. See if you can just notice the sensations in your feet where they rest against the floor...

[pause]

Now, as you continue to watch the sensations in your feet, allow yourself also to become aware of your breath moving in and out of your body. See if you can imagine your breath moving in and out through the bottom of your feet...

[pause]

With each inhalation, allow your awareness to sharpen; with each exhalation, allow tension and tightness to be released from your feet. Breathing in, focus your attention; breathing out, release tension...

[pause]

(allow a brief period of silence before moving on to the next body part, to allow the students a chance to practice focusing their attention)...

The body scan continues in this way as you move up the body. Adjusting for time as needed, you will usually focus on the thighs, hands, belly, arms, back, shoulders and neck, jaws, muscles around the eyes, and the forehead. This meditation can be lengthened by adding more parts of the body or done fairly briefly by just picking a few.

Appendix B: Getting rid of ANTS (PositivePsychology.com)

Worksheet

The types of automatic thoughts we have can impact how we feel, as well as our mental well-being.

Automatic Negative Thoughts, or ANTS, can guide our behavior without our realizing, and can be hard to control.

Becoming aware of your ANTS and replacing them with more adaptive, rational thoughts is an effective way to enhance your mood, health, and overall quality of life.

Instructions

Often, ANTS are brought on by certain environmental triggers - interactions we have, or events that take place in our lives.

Working through the table from left to right, list some of your common triggers in the first column; one example is provided to help you get started.

Use the center column, to write down the ANT that this trigger tends to bring to mind.

In the final, right-hand column, try to come up with a more positive, constructive, self-compassionate, and helpful thought that you can use to place this ANT.

Trigger	Automatic Negative Thought	Adaptive Thought

Appendix C: Values List (<https://loving.health/en/act-list-of-values/>)

1. **Acceptance:** to be open to and accepting of myself, others, and life.
2. **Adventure:** to be adventurous; to actively seek, create, or explore novel or stimulating experiences.
3. **Assertiveness:** to respectfully stand up for my rights and request what I want.
4. **Authenticity:** to be authentic, genuine, real; to be true to myself.
5. **Beauty:** to appreciate, create, nurture, or cultivate beauty in myself, others, and the environment.
6. **Caring:** to be caring towards myself, others, and the environment.
7. **Challenge:** to keep challenging myself to grow, learn, and improve.
8. **Compassion:** to act with kindness towards those who are suffering.
9. **Connection:** to engage fully in whatever I am doing and be fully Present with others.
10. **Contribution:** to contribute, help, assist, or make a positive difference to myself or others.
11. **Conformity:** to be respectful and obedient of rules and obligations.
12. **Cooperation:** to be cooperative and collaborative with others.
13. **Courage:** to be courageous or brave; to persist in the face of fear, threat, or difficulty.
14. **Creativity:** to be creative or innovative.
15. **Curiosity:** to be curious, open-minded, and interested; to explore and discover.
16. **Encouragement:** to encourage and reward behavior that I value in myself or others.
17. **Equality:** to treat others as equal to myself.
18. **Excitement:** to seek, create, and engage in activities that are exciting, stimulating, or thrilling.

- 19. Fairness:** to be fair to myself or others.
- 20. Fitness:** to maintain or improve my fitness; to look after my physical and mental health and well-being.
- 21. Flexibility:** to adjust and adapt readily to changing circumstances.
- 22. Freedom:** to live freely; to choose how I live and behave, or help others do likewise.
- 23. Friendliness:** to be friendly, companionable, or agreeable towards others.
- 24. Forgiveness:** to be forgiving towards myself or others.
- 25. Fun:** to be fun-loving; to seek, create, and engage in fun-filled activities.
- 26. Generosity:** to be generous, sharing and giving to myself or others.
- 27. Gratitude:** to be grateful for and appreciative of the positive aspects of myself, others, and life.
- 28. Honesty:** to be honest, truthful, and sincere with myself and others.
- 29. Humor:** to see and appreciate the humorous side of life.
- 30. Humility:** to be humble or modest; to let my achievements speak for themselves.
- 31. Industry:** to be industrious, hard-working, and dedicated.
- 32. Independence:** to be self-supportive and choose my own way of doing things.
- 33. Intimacy:** to open up, reveal, and share myself- emotionally or physically in my close personal relationships.
- 34. Justice:** to uphold justice and fairness.
- 35. Kindness:** to be kind, compassionate, considerate, nurturing or caring towards myself or others.
- 36. Love:** to act lovingly or affectionately towards myself or others.
- 37. Mindfulness:** to be conscious of, open to, and curious about my here-and-now experience.
- 38. Order:** to be orderly and organized.

- 39. Open-mindedness:** to think things through, see things from others' points of view and weigh evidence fairly.
- 40. Patience:** to wait calmly for what I want.
- 41. Persistence:** to continue resolutely, despite problems or difficulties.
- 42. Pleasure:** to create and give pleasure to myself or others.
- 43. Power:** to strongly influence or wield authority over others, e.g. taking charge, leading, and organizing.
- 44. Reciprocity:** to build relationships in which there is a fair balance of giving and taking.
- 45. Respect:** to be respectful towards myself or others; to be polite, considerate and show positive regard.
- 46. Responsibility:** to be responsible and accountable for my actions.
- 47. Romance:** to be romantic; to display and express love or strong affection.
- 48. Safety:** to secure, protect, or ensure safety of myself or others.
- 49. Self-awareness:** to be aware of my own thoughts, feelings, and actions.
- 50. Self-care:** to look after my health and well-being and get my needs met.
- 51. Self-development:** to keep growing, advancing, or improving in knowledge, skills, character or life experience.
- 52. Self-control:** to act in accordance with my own ideals.
- 53. Sensuality:** to create, explore, and enjoy experiences that stimulate the five senses.
- 54. Sexuality:** to explore or express my sexuality.
- 55. Spirituality:** to connect with things bigger than myself.
- 56. Skillfulness:** to continually practice and improve my skills and apply myself fully when using them.
- 57. Supportiveness:** to be supportive, helpful, encouraging, and available to myself or others
- 58. Trust:** to be trustworthy; to be loyal, faithful, sincere, and reliable.


Declaration

I, Pamela Miano, declare that this thesis is my original work and that I acknowledged and attributed all thoughts taken directly or indirectly from external sources.

I declare that the contents of the thesis have never been submitted before for another degree to any university or tertiary institution for examination.

I declare that the Carl von Ossietzky University of Oldenburg's regulations on good scholarly practice have been followed.

I declare that no commercial placement or consulting services have been used in connection with the doctoral project.

Signature 

Date: 17th June 2025