Exploring Student Experiences with Positive Psychology: A Qualitative Study of Engagement, Benefits, and Barriers

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Abstract

University students face increasing mental health challenges, often resulting from academic pressure, social isolation, and lifestyle factors, like smartphone usage, and sleep deprivation. Positive psychology offers a promising approach to enhancing well-being by focusing on psychological aspects like strengths, resilience, and personal growth. While existing research demonstrates the effectiveness of practicing positive psychology, there is a lack of knowledge about students' subjective experiences with these practices. This study employed a qualitative approach, conducting semi-structured interviews with 9 undergraduate psychology students to explore their perceptions and experiences with positive psychology, including how they engage with its practices in their daily lives, the benefits they perceive, and the barriers they encounter. Thematic analysis revealed that many students applied positive psychology techniques, including positive thinking, journaling, support-seeking, mindfulness, religious-related techniques, setting boundaries, and inspirational content. The perceived benefits of engaging in such techniques involved Emotional Clarity, Relaxation / Calm, Inner Peace /Balance, and Hope/Optimism. Students perceive engagement in positive psychology as beneficial in periods of stress, as well as, when they are in a negative mindset, feel the need to reset to a clear state of mind, or to self-reflect. Although students expressed a positive attitude towards positive psychology and were convinced of its added value, the engagement in positive psychology was mainly inconsistent and in reaction to stress or emotional discomfort. Students reported several barriers, preventing them from engaging in positive psychology in their daily lives, including Lack of perceived Necessity / Relevance, Discomfort, Difficulty in Expressing Feelings / Thoughts, Lack of Habit / Routine, Lack of Time, and Emotional Effort. These findings highlight a need for more flexible, personalized, and habit-forming approaches to support students in integrating positive psychology into their daily lives. Thereby, this study contributes to a better understanding of how positive psychology can be effectively tailored to students' needs and in turn support their mental health. This study was part of ongoing research on the TiP App, a digital positive psychology intervention developed at the University of Twente. The students who participated in this study also took part in an evaluation specifically focused on the app.

Introduction

Studying at a university is by many young people expected to be one of the most formative periods of their lives, however, mental health among university students is a global problem, which is steadily growing. Research shows that a rising number of students suffer from depression, anxiety, and psychological stress (Han et al., 2025; Kavvadas et al., 2023; Liu et al., 2019; Sheldon et al., 2021). Studies suggest that one-third of university students experience at least one mental health condition over the course of one year (Roldan-Espínola et al. 2024). According to the WHO World Mental Health International College Student project, which involves survey data from students of 19 universities across 8 countries (Australia, Belgium, Germany, Mexico, Northern Ireland, South Africa, Spain, United States), the prevalence rate of depression is estimated at 18.5% among students (Auerbach et al, 2018). Next to depression, Ahmed et al. (2023) estimate that 39.65% of university students experience elevated levels of non-specific anxiety, based on a systematic review and meta-analysis of 89 studies from 1980 to 2020, including 130,090 undergraduate university students worldwide. Thus, the problem is steadily evolving, and data show the urgency for additional support.

Reasons that contribute to increasing mental health problems among students are performance pressure, social isolation, sleep deprivation, and social media usage. Performance pressure, including exam anxiety, is the most common contributor to poor mental health among students (Córdova Olivera et al., 2023) Beyond that, social isolation aggravated and became more prevalent during the COVID-19-Pandemic (Chaudhary et al., 2024) and students tend to socially withdraw and experience solitude, especially first-year and international students often feel isolated (Manyeruke & Ergün, 2022). Another factor is sleep deprivation, which can be frequently observed in students and can contribute to mental health problems and increases in anxiety (Norbury & Evans, 2019). Furthermore, social media is a crucial factor in students' mental health, since extensive social media consumption can contribute to stress, anxiety, depression, and loneliness (Berryman et al., 2018; Cain, 2018). Hence, there are major factors that can be identified as contributing to mental health problems among students.

If students do not receive appropriate treatment for their mental health problems, this could lead to severe consequences. Studies show that students with mental health problems reach lower grades and are more likely to drop out before graduating (Oguntayo et al., 2024). Moreover, students with mental health problems are more likely to suffer form of sleep deprivation, eating disorders, and cardiovascular diseases (Tran et al., 2017). Furthermore,

the suicide risk is increasing, and suicide is one of the leading causes of death among young adults (Woller et al., 2025). Thus, promoting mental health among students can be crucial in strengthening their well-being and academic success, and Universities should find ways to provide sufficient support for their students (Chye et al., 2024). In conclusion, students face many mental health risks and are vulnerable to developing pathological symptoms, such as depression and anxiety. Those problems can have far-reaching consequences, not only for individuals but also for society as a whole, affecting the labor market and healthcare systems. Students should be supported in reaching their full potential and protected from mental health risks to support them in their individual well-being and to ensure their valuable contribution to society.

Ways to possibly encounter mental health problems among students could be provided by positive psychology. Positive Psychology proposes that mental health is not only the absence of pathological symptoms, but also the presence of mental well-being and therefore wants to shift the focus, away from pathological symptoms, rather on resources, strengths, and positive aspects of human life (Seligman & Csikszentmihalyi, 2000), as it aims to promote well-being, strengthen resilience, and increase positive experiences (Seligman et al., 2005). Seligman, as the former President of the American Psychological Society, endeavored to establish a greater focus on aspects such as personal strengths, growth, joy, and gratitude (Donaldson et al., 2014; Wang et al., 2023) addressing individuals in their daily, conventional lives (Sheldon & King, 2001). In conclusion, positive psychology is a relatively young sub-discipline, that acknowledges mental health and well-being as multidimensional concepts, which opened a direction for new psychological approaches, focusing more on positive aspects of personality and life in general.

Positive Psychology can be practiced in various ways. Hendriks et al. (2019) identified the most frequently used positive psychology activities, including collecting positive feelings, expressing gratitude, performing acts of kindness, engaging in positive thinking, and practicing mindfulness. Beyond that, apps promoting awareness and mindfulness, for example through meditation, became increasingly popular among students, and were found to be effective in reducing stress and increasing self-compassion (Huberty et al., 2019). Research shows that practicing self-compassion and resilience training can reduce stress and exam anxiety, however, students lack the adaption of such practices (Li et al., 2024; Tejada-Gallardo et al., 2020). Generally, engagement with positive psychology tends to be inconsistent over time and students do not apply its' practices systematically (Bolier et al., 2013; Hammill et al., 2022; Sin & Lyubomirsky, 2009). Although students appear to be aware of the positive effects and value its practices, they fail to integrate positive psychology into their daily lives while balancing busy schedules and academic demands (Hammill et al., 2022; Khan & Rieger, 2023; Sowmya, 2025). Studies indicate that student's willingness to engage with positive psychology relies on factors such as cultural values, emotional comfort, individual preferences, and a need for authenticity and autonomy (Michel et al., 2020). Conclusively, students are aware of positive psychology concepts but commonly lack the perceived capability of implementing those in their daily lives.

However, the systematic implementation of positive psychology in students' lives could be beneficial to foster their mental health. Studies show that positive psychology can have a significant impact on well-being in various samples, including students, and interventions based on principles such as gratitude, mindfulness, and strengths, help to decrease stress, promote resilience, increase general well-being, and reduce pathological symptoms (Carr et al., 2020; Chen et al., 2025; Donaldson et al., 2014; Lambert et al., 2019; Seligman et al., 2005; Wang et al., 2023). By integrating positive psychological approaches into students' daily lives, students can not only become more emotionally balanced but also more motivated and productive (Lambert et al., 2019). Thus, research reveals promising effects of positive psychology on mental health and suggests that a population of students, who are particularly vulnerable to mental health risks, can benefit from practicing positive psychology.

The empirical foundation of positive psychology about its positive effects on mental health appears to be strong, however, less is known about students' subjective experience in practicing positive psychology in their daily lives, and there are still significant gaps in current research. Existing research is limited in reporting students' subjective experiences when being engaged with positive psychology, and the ways they apply and perceive its concepts (Chen et al., 2025; Chim et al., 2024; Gander et al., 2016; Seligman et al., 2011). There appears to be an overemphasis on quantitative designs, which fail to capture contextual factors and individual, meaningful experiences (Lomas et al, 2021; van Zyl et al., 2024). This lack of students' subjective experience is also reflected in the fact, that most studies utilize positive psychology concepts as "one-size-fits-all" approaches, and individual factors that influence successful implementations are neglected (Allen et al., 2021; Michel et al., 2020). This limited understanding of students' subjective experiences and general perceptions of positive psychology suggests that qualitative research could help shift the focus from outcomes to students' perceptions of the process (Waters, 2011; van Zyl et al., 2023). Conclusively, further research about positive psychology should focus on students' subjective

experiences when dealing with positive psychology practices and their general perception of the topic, ideally in a qualitative approach.

This study aims to provide qualitative data about students' subjective experience with positive psychology, and its relevance in their daily lives and academic careers. It aims to generate a deeper understanding of how students make use of positive psychology, the benefits they perceive in its application, and the barriers they face that hinder further engagement. Therefore, the following three research questions are aimed to be answered: 1. *What are the experiences with positive psychology of university students in practicing positive psychology in their daily lives?* 2. *What positive beliefs and opinions, like perceived benefits and added value, do students express towards positive psychology in their daily lives?*

This study serves as an addition to the research about the TiP App. The TiP App is a digital positive psychology Intervention for students, designed at the University of Twente (Tönis et al., 2024). The insights provided by this study about a general perspective on positive psychology can be an insightful addition to the conducted evaluations about students' user experience with the app. Understanding general viewpoints and subjective experiences towards positive psychology could support the intervention design by approaching students' wants and needs towards positive psychology detached from the app usage.

Methods

Design

To explore students' general experiences with positive psychology, including the perceived benefits and barriers, a qualitative research design was used in the form of semistructured interviews. This approach was chosen because it allows participants open-ended responses in their own words, preserving the subjectivity of their experiences. At the same time, the researcher could adjust the flow of the conversation toward the intended topics (Harrison & Rentzelas, 2021). This flexibility of semi-structured interviews helped to generate detailed data on participants' attitudes, opinions, and experiences.

Participants

A total of 19 students signed up to participate in this study. However, 10 students withdrew, resulting in a final sample of 9 undergraduate Bachelor students, enrolled in the psychology program at the University of Twente (7 female, 2 male), between 18 and 23 years of age (see Table 1). Participants were recruited using convenience sampling over the course

of 6 months from February to July. Recruitment was primarily conducted through the SONA system, an internal recruitment platform at the University of Twente, where psychology and communication science students can participate in studies in exchange for academic credits, called Sona points. Students need to acquire 15 Sona points to obtain a bachelor's degree (University of Twente, 2025). In this study, students' participation was compensated with 3.5 SONA points. Additional participants were recruited via snowball sampling. In this approach, participants were asked to refer others who met the inclusion criteria. Conditions of a smartphone or tablet with internet connectivity, and a valid email address.

Prior to participation, all individuals received comprehensive information about the study and provided written informed consent. Participation was entirely voluntary, and participants were informed of their right to withdraw from the study at any point without providing a reason. Ethical approval was granted by the Ethics Committee of the Faculty of Behavioural, Management, and Social Sciences (BMS) at the University of Twente (ethical application number: 250060).

Table 1

Age	Gender	Study Program	Study Year
18	Female	PSY BSc	1st
21	Female	PSY BSc	1st
18	Female	PSY BSc	1st
19	Female	PSY BSc	1st
18	Female	PSY BSc	1st
20	Male	PSY BSc	3rd
20	Female	PSY BSc	1st
18	Female	PSY BSc	1st
23	Male	PSY BSc	3rd

Sociodemographic Data of the Participants

Note. PSY BSc refers to the Bachelor of Science in Psychology.

Materials

Mobile Application

The TiP app consisted of six themes that focus on happiness, confidence in yourself, confidence in the future, kindness, resilience, and affiliation. Each theme included a specific exercise: 1. Writing down three good things (happiness), 2. Asking friends or family about personal strengths (confidence in yourself), 3. Imagining your ideal future self (confidence in the future), 4. Practicing self-compassion during difficult times (kindness), 5. Finding positive outcomes that result from setbacks (resilience), 6. Performing kind actions towards others (affiliation). Each theme took three consecutive days to complete, making the full intervention last approximately 18 days. Every theme began with an introductory video, followed by a written explanation and then the corresponding exercise. The app was designed as a maze, requiring users to complete one module before unlocking the next. Participants accessed the app through their own smartphones or tablets, using a download code provided by the researchers. The app is currently only available in Dutch and is not publicly accessible through app stores.

Figure 1

12:33 al 🕆 🔳 12:32 al 🕆 🗖 12:32 Deel 1 ← Oefening Sta elke dag stil bij drie goede dingen van die dag. Dat kunnen kleine dingen zijn, zoals iemand die jou op straat vriendelijk groe het genieten van de zon, een fijn gesprekje, of een programma op televisie dat je leuk vond aar het kunnen ook grotere dingen zijn. Doe de oefening minimaal drie dagen. We en je aan om de drie goede dingen ook op te schrijven. Vreugde Doe ook de luisteroefening: 'Met aandacht In dit deel leer je hoe je met een eenvoudige oefening vaker positieve emoties kunt ervaren. genieter Wat was er vandaag positief? Voorbeelden van positieve emoties zijn ns van dankbaarheid, blijheid, trots er Eerste positieve gebeurtenis Positieve emoties kun je vergelijken r Tweede positieve aebeurtenis vitamines. Door dagelijks groente en fruit te eten, krijg je voldoende vitamines binnen Daarmee versterk je je lichamelijke weerst en vitaliteit. Door dagelijks stil te staan bij de positieve aebeurtenis positieve gebeurtenissen, ervaar ie posit emoties. Daarmee versterk je jouw veerkracht en welzijn Hoe kun je dagelijks je positieve emotie versterken? Heel udig! Door vaker je aandacht bewust te richten op positieve ċ. ervaringer

Note. The screenshot on the left shows the starting screen, which displays the maze that navigates users through the app. The screenshot in the middle illustrates the *Writing Down Three Good Things* exercise, which is part of the first theme of happiness. The screenshot on the right shows the introductory video and the written explanation regarding the first theme happiness.

Screenshots of the TiP App

Interview Scheme

The interview was divided into two main parts. The first part focused on students' general experiences with stress, including how they experience and cope with it, as well as their familiarity with and use of positive psychology in their daily lives. Participants were provided with the following definition of positive psychology: Positive psychology is the science around well-being. Unlike traditional psychology, which often focuses on symptoms, positive psychology asks: What helps you to feel good, to grow, and to live a fulfilling life (Appendix 1). Then participants were asked whether they applied related practices (Do you have any experience with practicing positive psychology exercises?), what benefits they perceived (What are the benefits of engaging in positive psychology?), and what barriers they encountered, that hindered them to engage in these practices more regularly (Do you experience any barriers towards positive psychology?).

The second part of the interview addressed participants' engagement with the TiP app. Questions explored their general opinion of the app, aspects they found positive or helpful, such as specific exercises or app features, and any perceived changes they experienced during or after the intervention. Participants were also asked about negative or unhelpful aspects, including exercises or features they did not like or found hindering. Finally, they were asked to offer suggestions for improvement, including ideas for how the app and its content could be better implemented and promoted. The semi-structured format ensured that key topics were covered consistently while allowing for follow-up questions tailored to participants' individual responses. The interview scheme is included in Appendix 1.

Procedure

After signing up for the study, students provided informed consent. They then received instructions on how to download the app and a download code. The app could be downloaded on both Android and iOS devices. After installation, participants created a personal account to access the app and begin the exercises. After the three-week period, participants were contacted to assess their progress with the intervention. Those who had not completed the app were given additional time as needed. Once participants confirmed they had finished or almost completed the app, an individual follow-up interview was scheduled. All interviews were conducted via Microsoft Teams and lasted approximately 45 to 70 minutes. The interviews were semi-structured, starting with the first section (approximately 15 to 30 minutes) about participants' general experiences with positive psychology, followed

by the second section (30 to 40 minutes) concerning their experiences specifically with the app. The interviews were conducted by two researchers individually, using the same interview scheme. All interviews were, audio-recorded with the participants' consent, and subsequently transcribed verbatim for qualitative analysis. Participants were reminded of their right to withdraw at any time without negative consequences.

Data Analysis

The interview data were analyzed using thematic analysis, following the six-phase approach developed by Braun and Clarke (2006). This method was chosen for its flexibility and its ability to identify, analyze, and interpret patterns across qualitative data. The analysis was conducted inductively, which means that themes were derived directly from the data without applying a pre-existing coding framework. In the first phase, all interviews were transcribed verbatim and read multiple times to ensure familiarization with the content. In the second phase, initial codes were generated by identifying meaningful features in the data. During the third phase, these codes were then examined and grouped into potential themes. In the fourth phase, the themes were reviewed and refined to ensure they accurately represented the coded data. The fifth phase involved defining and naming each theme to capture its central meaning clearly. Finally, in the sixth phase, the analysis was written up, including representative quotes to illustrate each theme. Conclusively, this process led to the identification of four main themes and corresponding subthemes, capturing students' experiences with positive psychology in their daily lives, as well as the benefits and barriers they reported.

Results

Thematic analysis of the interview data resulted in four themes and 27 subthemes, displayed in Table 2. Theme 0, which focuses on students' experiences of stress, provides a foundational understanding of the emotional and motivational context in which students engage with positive psychology-related techniques. Theme 1 addresses the first research question concerning the extent to which students apply positive psychology in their daily lives and the specific techniques they rely on. Theme 2 corresponds to the second research question, focusing on the perceived benefits of engaging in positive psychology. Theme 3 relates to the third research question, which explores perceived barriers to applying positive psychology.

Table 2

Overview of Themes

Theme		Subtheme	
0.	Stress	Sources of Stress	
		Effects of Stress	
		Coping without Positive Psychology	
1.	Techniques and Practices	Positive Thinking / Reframing	
		Journaling	
		Support-Seeking	
		Mindfulness	
		Religious-Related Techniques	
		Setting Boundaries	
		Inspirational Content	
2.	Perceived Benefits	Effects	
		Emotional Clarity	
		Relaxation / Calm	
		Inner Peace / Balance	
		Hope / Optimism	
		Situational Context	
		Stress	
		Negative Mindset	
		Reset to a clear state of mind	
		Self-Reflection	
3.	Barriers of Positive Psychology	Lack of perceived Necessity / Relevance	
		Discomfort	
		Difficulty in Expressing Feelings/Thought	
		Lack of Habit / Routine	
		Lack of Time	
		Emotional Effort	

Note. This table presents the themes and corresponding subthemes that emerged from the thematic analysis of the interview data.

Theme 0: Stress

This theme relates to ways students experience stress, referring to sources that stress originates from, effects that students reported due to experiencing stress, and ways of coping with stress that do not align with positive psychology.

Sources of stress

This theme captures students' sources of stress, what effects they experienced, and how they dealt with it in their daily lives. The majority of students reported experiencing stress, primarily due to academic demands and workload. One student reflected: "*At first, I always just feel so stressed. I feel like I can't do anything and everything is over,*" (Interview 3), indicating a sense of overwhelm during periods of high pressure. Another student elaborated on the difficulty of managing academic responsibilities alongside personal life: "Well, I feel like the study load for [the study I'm doing] is sometimes a bit much (...) if you want to also maintain a social life and do stuff for yourself and school is so much, that is kind of stressful to divide your attention towards everything." (Interview 6).

Effects of Stress

Stress was frequently associated with negative emotional and physical effects. Students reported symptoms such as irritability, social withdrawal, and disrupted communication. As one noted: "*I think when I'm stressed, I am a bit more turned to myself, so I'm less talkative when I'm with my family, and I get mad easier, and I get irritated easier*." (Interview 2).

Coping without Positive Psychology

To manage stress, students described using a range of coping strategies, including avoidance and distraction. One student explained: "Yeah, it kind of lingers like in the back of my mind (...) then periodically I could forget about it, but then like it constantly comes back." (Interview 3). Similarly, another student stated: "I'm relaxed. And then as soon as it gets closer to the deadline, I'm like, oh, no. Now I begin stressing about all the things that I, like, don't know yet or something." (Interview 7). Stress also shaped how students prioritized their mental well-being more broadly; during high-pressure phases, positive psychology practices were often deprioritized or viewed as secondary. One student reported: "Yeah. Or I'm just very busy. And then I also don't have the energy for it. That's also sometimes." (Interview 4).

In conclusion, students primarily reported stress related to academic demands, including busy schedules, strict requirements, and performance pressure, which could lead to avoidance-based coping and the deprioritization of their mental well-being, thereby potentially affecting their engagement with positive psychology practices.

Theme 1: Techniques and Practices

This theme outlines the range of strategies students associated with positive psychology in their everyday lives. These techniques were typically personally adapted and used to reduce stress, regulate emotions, or maintain a sense of well-being. Although students varied in how consciously or consistently, they applied such approaches, several practices were identified across the interviews.

Positive Thinking / Reframing

The most frequently mentioned strategy was positive thinking and reframing. One student noted: "*I try to remember myself of the positive things, and that life goes further and that I cannot stand somewhere still.*" (Interview 1). Moreover, participants reported: "*I just end it with a positive note and then it makes me feel better about the situation.*" (Interview 4), or: "*I started to get into this downward spiral, but I noticed this in myself and then I was like cognitively pushing myself to think of positive things and be like:* 'Oh, it's going to be alright" (Interview 3).

Journaling

Another commonly used technique was journaling, particularly in times of stress or emotional tension. One student explained: "Usually when I feel like I'm stressed, (...) when I think I need to get something out then I usually do it and it differs how much it is." (Interview 4). Additionally, another student stated: "I'm familiar with journals who ask questions every morning and evening from like how was your day? What are your expectations? What are you grateful for?" (Interview 6).

Support Seeking

Some students relied on support seeking, turning to people close to them and opening about personal concerns: "*I just try to really think about what I really want to do and talked to my mom because I always talk to her when I have to make a decision.*" (Interview 2), or:" *I just say, `oh, I'm so stressed' and I hope they talk me out of it, but it's for a few days, usually the thing I talk about the most.*" (Interview 4).

Mindfulness

For instance, one student described using mindfulness, bringing awareness to the moment, focusing on the here and now, to manage stress: "Now I'm just going to be here. And when I'm back home, I can think about the exam again. And I did just like kind of put it to the side." (Interview 3). Another student reported: "During a test halfway through, I would kind of lose concentration. Then I would close my eyes. And do this I guess exercise (...) I would just apply certain bits and pieces that I had heard, for example...retrospectively, I would call it a body scan and listening to my environment." (Interview 8).

Religious-Related Techniques

Another student relied mainly on religious-related techniques to think positively and to draw a positive picture of the future: "*I just try to remember myself with some quotes or some Bible verses (...) how I am and how I should be.*" (Interview 1).

Setting Boundaries

In contrast, one student reported setting boundaries to protect their mental well-being, by making a clear division between her study duties and private life: "But I just don't work for school in the evening or something, so that's all reserved for hobbies and friends and those things." (Interview 4)., and "If I have worked at yeah at school until like 5:00 in the afternoon and then I go home and then I think, OK, this is enough for today and I feel good about it. Even if I don't know everything yet." (Interview 4).

Inspirational Content

This same student, which made use of setting boundaries, also described engaging and creating with inspirational content: "So I just wrote everything down and I look up things on *Pinterest.*" (Interview 4) and visualizing future goals through vision boards: "Yeah, like, vision boards at the beginning of the year, me and my sister, we made like a vision board of what we want the year to be." (Interview 4).

In summary, while some students appeared to implement multiple techniques deliberately, others reported minimal or unstructured use of positive psychology strategies. These findings suggest that students tended to apply various positive psychology techniques, however, students did not always label them as such. For many, engagement with positive psychology appeared to be implicit and intuitive rather than deliberate, as one student reflected: *"Maybe I've done it without even knowing what it is."* (Interview 4). However, the data also suggest that different techniques were not widely shared across students. Rather, students tended to rely on a single or a few strategies that matched their preferences and experiences.

Theme 2: Perceived Benefits

This theme addresses the outcomes students linked to their use of positive psychology techniques. These benefits included emotional clarity, relaxation and calm, a sense of inner peace and balance, as well as hope and optimism. In addition to these effects, students also reflected on the situational contexts, in which positive psychology practices were perceived

as particularly beneficial, involving stress, negative mindset, reset to a clear state of mind, and self-reflection.

Beneficial Effects

Emotional Clarity. A frequently mentioned benefit was enhanced emotional clarity and the ability to generate personal insight about themselves or the situation, as one student explained: "*I think, if you practice positive psychology, you become better at like reflecting at your own thoughts, feelings, actions.*" (Interview 3). Another student elaborated: "*I just feel good that I wrote it down and that I recognized my feelings.*" (Interview 4), "*Because afterwards I always feel like, OK, I can easily focus on the positive thing that came out of it.*" (Interview 4), highlighting the positive effects of being able to make sense of their emotional experience.

Relaxation / **Calm.** In addition, the relaxing and calming effects of positive psychology practices were described by students. One student reported such an experience during an exam: "(...) and then after a couple of minutes, I went back to the question. When I like mentally calmed down again and yeah, I was able to answer it." (Interview 3). Another student referred to a more general effect: "I have the feeling that it calms me down." (Interview 1).

Inner Peace / Balance. In some cases, students experienced the effects of inner peace and balance after applying positive psychology. One student reported about setting boundaries: "If I have worked at school until like 5:00 in the afternoon and then I go home and then I think, OK, this is enough for today and I feel good about it.". This reflected an achieved peaceful state of mind, which could also be identified after journaling: "Now it's written down. It's out of my head. So, I don't have to think about it anymore." (Interview 4).

Hope / **Optimism.** Lastly, positive psychology practices appeared to promote hope and optimism. One student reported: "When you write it down or have some questions, you are: it's not all that bad, I do have positive sides. So that you don't end up in a negative spiral. I think it's important to use a journal or positive psychology to also see the positive sides of yourself." (Interview 6), highlighting the elicited optimism through positive psychology techniques.

Situational Context

Next to the beneficial effects that students perceive, there are certain situational contexts students thought positive psychology to be particularly useful.

Stress. Most students considered it particularly useful in situations of stress: "For me personally I have like only experienced this with stress, like to get rid of stress." (Interview

3), or "But when I'm like really stressed or have something on my mind that I just need to blur out, then it's when I usually write down some stuff." (Interview 6), or "I just try to remember myself with some quotes or some Bible verses (..) If I feel overwhelmed" (Interview 1).

Negative Mindset. Moreover, students reported using positive psychology when they were in a negative mindset: "Yeah, I can just, I feel sometimes a little hopeless that everything will go wrong and then my future is different than I envisioned." (Interview 4), and "I started to get into this downward spiral, but I noticed this in myself and then I was like cognitively pushing myself to think of positive things and be like: `oh, it's going to be alright' and focus on my own breathing. And then after like a couple of minutes, I was completely fine again" (Interview 3).

Reset a Clear State of Mind. Some students engaged in positive psychology when they tried to reset to a clear state of mind: "And I just try to get my thoughts kind of ordered and then I just feel a lot better about myself," (Interview 4), or "I just kind of had a blackout. I just saw the question in front of me. It was worth a lot of points, and I just didn't know what it meant. And then I also really tried to like...Get myself on like a down to earth level again," (Interview 3).

Self-Reflection. Whereas a few students used positive psychology when they felt the need to reflect on themselves: "I think it's really important to like take a moment to like, sit back and say... reflect on the situation, because sometimes it's stressful and I cannot do anything." (Interview 6), or "Yeah, like, vision boards at the beginning of the year, me and my sister, we made like a vision board of what we want the year to be and then I just kind of keep track of things that are happening or has happened." (Interview 4).

In conclusion, students experienced a range of positive effects associated with practicing positive psychology, depending on the technique, its context, and students' needs. Beyond that, they perceived it as useful in different kinds of emotionally charged situations, though it was mainly considered beneficial in times of stress.

Theme 3: Barriers of Positive Psychology

While students identified several benefits, they also reported barriers that hindered their engagement with positive psychology practices. This theme captures perceived barriers such as lack of perceived necessity and relevance, discomfort, difficulty in expressing feelings/thoughts, lack of habit/routine, lack of time, and emotional effort.

Lack of Perceived Necessity / Relevance

The most shared barrier was the perceived lack of necessity to engage with positive psychology practices during emotionally stable times. While students generally perceived positive psychology as useful and beneficial, they tended to see no need to engage with it when they were doing well. Regarding practicing mindfulness through meditation one student reported: "I know that it's way more valuable in a daily life situation, but I apply it and that way I've learned to see it as a measure against chaos and frustration." (Interview 8). Another student reflected on her journal: "When I'm very, very happy all the week or something, I usually don't even touch it."; "But I just mostly pick it up when I think: OK, I have something to say to myself. And then if I don't have anything, then yeah, it just lies there." (Interview 4), reflecting that she uses her journal only in times of stress or discomfort. Another student shared a similar experience: "At the moment I don't really see it as a thing that I currently need, you know, so I don't really see the necessity of it." (Interview 3). Similarly, students question the usefulness of positive psychology in the absence of stress: "So, mostly for social situations it was really beneficial for me, but I'm not sure if it would be that beneficial for me if it was like a non-stressful period." (Interview 1), or "But I could feel like when there is not a really stressful situation that you're okay: Why am I really doing it, so it doesn't like, you don't have really a motivation to behave in positive psychology" (Interview 6).

Discomfort

This subtheme refers to the discomfort that students may feel about expressing their thoughts and feelings, whether this is through individual introspection and self-reflection, or disclosure and exchange with others. One participant emphasized the discomfort she feels when dealing with or expressing her inner states: "Yeah, I do think things would be better, but I just, I don't know. I just can't do it. I don't like it.", and "I am not really the person to really talk about the way I'm feeling because...I don't know." (Interview 2).

Difficulty in Expressing Feelings/Thoughts

Another student described the difficulty of expressing emotions during self-reflection: "I don't know why I had issues with it, but I think it was really hard to…like actually, put it down, put it down in words." (Interview 2). This illustrates how students could feel overwhelmed by the demands of certain positive psychology practices. This was also reflected in possible discomfort when dealing with one's own feelings and thoughts, as one student described: "Yeah, I do think things would be better, but I just, I don't know. I just can't do it. I don't like it. I get mad and I don't want to talk about it." (Interview 2).

Lack of Habit / Routine

Another frequently mentioned barrier was a lack of habit or routine. Statements such as: "Sometimes you just forget to use it and when you forget to use it for like a day, you forget to use it for a few days,", "I don't really have other reasons than just forgetting it sometimes." (Interview 6) and "I think it could, because sometimes I just completely forget about it for a month and then I think, oh, now I need to do it a little more often." (Interview 4) highlighted how irregular use and lack of habit may lead to inconsistency of applying positive psychology in daily life.

Lack of Time

Student reported that due to busy schedules and a resulting lack of time, practices of positive psychology tend to be disregarded: "Mindfulness is something I do have experience with, but I should do more often in my daily life because that's the whole thing I because I don't have time for mindfulness. I definitely should do it."(Interview 8), and "Umm, not it the exact same way, because some things like, for example, when you only work on school and work things during the day and then at night you take time to for hobbies. And I think maybe not for that" (Interview 4).

Emotional Effort

This subtheme refers to the emotional effort associated with practicing positive psychology and hence dealing with one's own thoughts and emotions. One student describes it as: *"It takes a lot of effort, especially if you have a lot of things on your mind"*, and *"Yeah, I think it's mostly just hard to start because then I think I'm so done with today and.I just want to do something that doesn't require any energy"*, and *"Because sometimes I think: OK. Now, I have to sit down and I have to write everything. And yeah, feels kind of like a work at that point."* (Interview 4).

Moreover, emotional effort was mentioned together with the subtheme of lack of time as one student reported, busy schedules contribute to the perceived emotional effort: "*It takes a lot of effort, especially if you have a lot of things on your mind (...) Then you're just very busy and I think if I, for example, studied or worked all day, then my brain feels a little fried and I think, oh, I just want to be on my phone and look at things that are not important.*", and "Or I'm just very busy. And then I also don't have the energy for it. That's also sometimes" (Interview 4).

In conclusion, a variety of barriers appeared to hinder students' engagement with positive psychology. These barriers were shaped by personal circumstances and ranged from widely shared issues such as time constraints to more individual challenges, such as discomfort or difficulty expressing internal states. However, the most frequently expressed limitation was the perceived lack of necessity for applying these techniques during emotionally stable periods.

Discussion

This study aimed to provide qualitative data on students' subjective experiences with positive psychology. Three research questions were formulated to explore students' engagement with positive psychology, the benefits they perceive, and the barriers they encounter.

The first research question aimed to address the general experience students have in applying positive psychology in their daily lives. Existing research showed that students already engaged with positive psychology techniques, such as journaling or mindfulness (Hendriks et al., 2019; Huberty et al., 2019). This is in accordance with this study since the findings suggest that most students already employ certain techniques aligned with positive psychology, particularly during stressful periods. These techniques were not referred to as "positive psychology" by the participants themselves, suggesting that their engagement is often intuitive rather than deliberate. Typically, students relied on one to three strategies that they found effective based on personal preference or past experience. However, students did not consistently or structurally use these strategies. Instead, techniques were applied reactively, mainly in response to stress or emotional discomfort. This is consistent with previous research, which has shown that positive psychology is often employed inconsistently, while engagement decreases over time and that students tend to not apply positive psychology systematically (Bolier et al., 2013; Hammill et al., 2022; Sin & Lyubomirsky, 2009). This reactive approach indicates that positive psychology was often seen as a last resort, only used when students felt overwhelmed. While this suggests that students recognize the short-term benefits of these practices, it also suggests a potential underappreciation of the long-term advantages that are established through regular use, such as resilience building or preventive mental health care.

The variety of techniques supports the idea that students prefer individualized strategies. Examples ranged from journaling and mindfulness to religious practices and creative activities, such as vision boards. These findings suggest that students prioritize one or a few techniques, which they found to be effective for themselves. Therefore, interventions might be more effective if they offer a flexible set of tools that students can tailor to their preferences. This aligns with research of Allen et al. (2021) and Michel et al. (2020), that positive psychology interventions should be tailored to individual needs rather than using a

one-size-fits-all approach. Instead, students appear to favor approaches that match with their personal preferences and experiences. This suggests that interventions should provide a flexible approach that allows students to choose what suits them best, instead of providing a uniform set of techniques.

The second research question focused on the benefits students perceive in applying positive psychology. All participants viewed positive psychology techniques as helpful and relevant, particularly in the context of coping. When asked about their experiences, they primarily described benefits related to their own mental well-being, such as increased calmness, emotional clarity, and hopefulness. However, benefits related to social or relational aspects were not mentioned. The study expands on the literature by illustrating how students associate positive psychology with individual benefits. While prior studies have focused on stress reduction and self-compassion (Chen et al., 2025; Huberty et al., 2019), this study emphasize a change in participants' appreciation of close relationships. Despite disregarding social effects at first, many participants later reported an increased appreciation for close connections with others. This suggests that positive psychology is often perceived primarily as a tool for individual benefits, while its potential to foster connectedness may be overlooked. However, after using the TiP app, many participants reported an increased appreciation for their relationships with people close to them as one of the most prominent and valued effects. Therefore, it may be beneficial for future positive psychology interventions to emphasize these interpersonal effects more explicitly in both their design and promotion.

The third research question addressed barriers that students experience with practicing positive psychology in their daily lives. This study aligns with previous literature about students' tendency to engage in positive psychology inconsistently and non-systematically (Bolier et al., 2013; Hammill et al., 2022; Sin & Lyubomirsky, 2009). While this study confirms barriers such as lack of time, energy, and habit (Hammill et al., 2022; Khan & Rieger, 2023; Sowmya, 2025), it provides a deeper understanding of perceived barriers by showing that students often do not see the need of applying positive psychology in emotionally stable periods. Participants mentioned lack of perceived necessity as the most common barrier since many did not see the need to engage in positive psychology practices when they felt emotionally well or stable. This situational, reactive use might imply that students do not see the value in caring for their mental health when no immediate issues are present. This reactive pattern may limit the long-term benefits of positive psychology, such as strengthened well-being and resilience, as described by Seligman et al. (2005). When

students only engage with these practices during periods of acute stress, the emotional effort is often greater, and the techniques are less familiar. Therefore, interventions should emphasize the importance of proactive and regular engagement with positive psychology, since helping students recognize the value of mental health practices during emotionally stable periods could foster more sustainable usage patterns with long-term effects.

The tendency for students to reactively engage in positive psychology practices in response to stress might be explained by the *Tend-and-Befriend* response (Taylor et al., 2000). This theory proposes that, when individuals, especially females, experience stress, they may respond by turning to others for support or by using nurturing activities or tending behaviours to regulate their emotions. In this context, techniques like journaling or mindfulness can be seen as such tending behaviours, and students might apply those techniques as a response to stress, instead of proactively making use of them. This might explain why students only turned to these practices when they felt the need to do so, rather than using them regularly to maintain mental well-being. Understanding positive psychology as part of students' broader stress responses may provide useful insights into students' motivation to engage with these techniques.

Limitations

A limitation of this study is the composition of the sample, which consisted solely of psychology students. Thereby, participants were more likely to be familiar with psychological concepts, like mindfulness or self-compassion, and maybe more open and receptive to positive psychology practices compared to students from other programs. This difference in engagement between psychology and non-psychology students is supported by previous research, which suggests that students from psychology programs are more likely to engage with positive psychology than students from other programs (Hammill et al., 2022). Thus, the sample of this study could have influenced students' experiences with positive psychology and their ability to express and reflect on those. Additionally, the sample was predominantly female, which limits the generalizability of the findings. Furthermore, because of the exploratory nature of this qualitative study, the findings are based on the specific experiences of the participants who took part in this study. Therefore, it is possible that certain techniques, benefits, or barriers were not reported because they did not occur within this sample of students.

Another limitation of this study is that the thematic analysis was conducted by one single researcher. Thus, the whole coding scheme relies on the interpretation of one researcher. Consequently, coder triangulation, which refers to the involvement of multiple

coders to reduce subjective bias, was not possible (Harrison & Rentzelas, 2021). Moreover, interrater reliability, which describes the level of agreement about codes between different coders to ensure coding consistency, could not be assessed. Therefore, the thematic analysis is vulnerable to potential research bias and the findings might lack reliability.

Future Research

Future research could complement this qualitative study with quantitative research. While participants were aware of the benefits of positive psychology and familiar with certain techniques that they found to be effective for themselves, they did not apply them systematically or regularly. A quantitative follow-up study investigating these barriers that prevent regular use could offer valuable insights into why students do not use positive psychology more frequently. Previous research already discussed inconsistent and nonsystematic engagement (Bolier et al., 2013; Hammill et al., 2022; Sin & Lyubomirsky, 2009) and identified barriers such as lacking time and balancing academic demands (Hammill et al., 2022; Khan & Rieger, 2023; Michel et al., 2020; Sowmya, 2025), however such barriers or the reasons for inconsistent engagement, were neither explored more in-depth nor were the focus of the study. A quantitative follow-up study, like a scale survey, exploring the barriers identified in this study, could help to identify broader patterns within a larger student population and provide a deeper understanding of barriers that prevent students from more regular usage. These insights could help to directly address such barriers and better tailor interventions to students' needs.

Next to a deeper understanding of these barriers, the lack of perceived necessity might hold implications about students' fundamental perception of mental health. Future research could further explore the reactive pattern observed in this study, in which students tend to engage with positive psychology practices in response to stress or emotional discomfort, which prevents students from practicing positive psychology regularly, despite being aware of its benefits. Future research could aim to gain a deeper understanding of why students adopt a reactive approach to positive psychology practices. While lacking time and lacking habit are identified barriers, this study suggests that the lack of perceived necessity may play an even more central role. Many students, who participated in this study, appear to engage in positive psychology techniques only when they are feeling overwhelmed or emotionally unwell because otherwise, they do not feel the need to do so. This raises the question of whether students view mental health as something that requires attention only in periods of crisis, leading to a neglect of ongoing care and proactive effort toward their own wellbeing. Practicing positive psychology, such as journaling, and mindfulness, can be understood as an act of caring for one's mental health. In line with Seligman's perspective (Seligman et al., 2005), mental health is not just the absence of illness but includes well-being, purpose, and resilience, which can be actively developed even in emotionally stable times. If students adopt this perspective on mental health, they might feel more motivated to engage in these practices regularly, not just when they are struggling. Addressing this underlying perception in future research may be key to promoting more consistent and preventive use of positive psychology among students.

Conclusion

This study provides insight into how students experience, perceive, and engage with positive psychology practices in their daily lives. While many students already rely on techniques that align with positive psychology and are convinced of its added value, their usage tends to be reactive and inconsistent rather than systematic. This suggests a gap between students' awareness of the benefits and their ability or willingness to engage in positive psychology regularly. The findings highlight the importance of tailoring interventions to individual preferences while promoting consistent, proactive use. Although the participants viewed positive psychology as helpful, especially in terms of coping, its relational benefits were often disregarded until made salient by the app intervention. Moreover, the study emphasizes the need to address barriers that prevent students from integrating positive psychology into their daily lives. Most participants only engaged in positive psychology in emotionally challenging or unstable periods, thus, the most common barrier was perceived necessity. This suggests that engagement with positive psychology might rather be a stress response, than a proactive, deliberate activity. By focusing on students' subjective experiences, this research contributes to a more nuanced understanding of how positive psychology can be effectively implemented to support student mental health.

References

Ahmed, I., Hazell, C.M., Edwards, B. *et al.* A systematic review and meta-analysis of studies exploring prevalence of non-specific anxiety in undergraduate university students. *BMC Psychiatry* 23, 240 (2023). <u>https://doi.org/10.1186/s12888-023-04645-8</u>

Allen, J. G., Romate, J., & Rajkumar, E. (2021). Mindfulness-based positive psychology interventions: a systematic review. *BMC Psychology*, 9(1), 116. <u>https://doi.org/10.1186/s40359-021-00618-2</u>

Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., Demyttenaere, K., Ebert, D. D., Green, J. G., Hasking, P., Murray, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Stein, D. J., Vilagut, G., Zaslavsky, A. M., Kessler, R. C., & WHO WMH-ICS Collaborators. (2018). WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*, *127*(7), 623–638. <u>https://doi.org/10.1037/abn0000362</u>

Berryman, C., Ferguson, C. J., & Negy, C. (2018). Social media use and mental health among young adults. *The Psychiatric Quarterly*, *89*(2), 307–314. https://doi.org/10.1007/s11126-017-9535-6

Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: a meta-analysis of randomized controlled studies. *BMC Public Health*, *13*(1), 119. <u>https://doi.org/10.1186/1471-2458-13-119</u>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <u>https://doi.org/10.1191/1478088706qp063oa</u>

Cain, J. (2018). It's time to confront student mental health issues associated with smartphones and social media. *American Journal of Pharmaceutical Education*, 82(7), 6862. <u>https://doi.org/10.5688/ajpe6862</u>

Carr, A., Cullen, K., Keeney, C., Canning, C., Mooney, O., Chinseallaigh, E., et al. (2020). Effectiveness of positive psychology interventions: a systematic review and metaanalysis. *J. Posit. Psychol.* 16, 749–769. <u>https://doi.org/10.1080/17439760.2020.1818807</u>

Chaudhary, P., Patra, A., Singal, A., & Arora, K. K. (2024). Assessment of the attitude, anxiety episodes and perceived psychological impact of the pandemic on medical undergraduate students - a retrospective study. *Maedica*, *19*(4), 750–755. https://doi.org/10.26574/maedica.2024.19.4.7502024; Chen, C., Nibbio, G., & Kotozaki, Y. (2025). Editorial: Cognitive and mental health improvement under- and post-COVID-19. *Frontiers in psychology*, *16*. https://doi.org/10.3389/fpsyg.2025.1565941

Chim, K., Lai, J. T. C., & Chan, B. T. Y. (2024). Embedding positive psychology into curriculum to promote posttraumatic growth, psychological flexibility, and socio-emotional competencies in higher education. *Frontiers in Psychology*, *15*, 1450192. https://doi.org/10.3389/fpsyg.2024.1450192

Chye, S. M., Kok, Y. Y., Chen, Y. S., & Er, H. M. (2024). Building resilience among undergraduate health professions students: identifying influencing factors. *BMC Medical Education*, 24(1). https://doi.org/10.1186/s12909-024-06127-1

Córdova Olivera, P., Gasser Gordillo, P., Naranjo Mejía, H., La Fuente Taborga, I., Grajeda Chacón, A., & Sanjinés Unzueta, A. (2023). Academic stress as a predictor of mental health in university students. *Cogent Education*, *10*(2).

https://doi.org/10.1080/2331186x.2023.2232686

Donaldson, S. I., Dollwet, M., and Rao, M. A. (2014). Happiness, excellence, and optimal human functioning revisited: examining the peer-reviewed literature linked to positive psychology. *J. Posit. Psychol.* 10, 185–195. https://doi.org/10.1080/17439760.2014.943801

Erzincanli, Y., & Geçikli, F. (2024). Role of conscious awareness and Big Five in predicting the digital addiction. *Frontiers in Public Health*, *12*, 1449847. <u>https://doi.org/10.3389/fpubh.2024.1449847</u>

Gander, F., Proyer, R. T., & Ruch, W. (2016). Positive psychology interventions addressing pleasure, engagement, meaning, positive relationships, and accomplishment increase well-being and ameliorate depressive symptoms: A randomized, placebo-controlled online study. *Frontiers in Psychology*, *7*, 686. <u>https://doi.org/10.3389/fpsyg.2016.00686</u>

Hammill, J., Nguyen, T., & Henderson, F. (2022). Student engagement: The impact of positive psychology interventions on students. *Active Learning in Higher Education*, *23*(2), 129–142. <u>https://doi.org/10.1177/1469787420950589</u>

Han, S.-S., Zhang, Y.-S., Zhu, W., Ye, Y.-P., Li, Y.-X., Meng, S.-Q., Feng, S., Li, H., Cui, Z.-L., Zhang, Y., Zhang, Q., Wang, G.-X., Lou, H., Li, B., & Xu, C.-Y. (2025). Status and epidemiological characteristics of depression and anxiety among Chinese university students in 2023. *BMC Public Health*, *25*(1), 1189. <u>https://doi.org/10.1186/s12889-025-22443-7</u>

Harrison, E., & Rentzelas, P. (2021). *Your Psychology Dissertation (student success)*. SAGE Publications. ISBN 978-1526497291

Hendriks, T., Warren, M. A., Schotanus-Dijkstra, M., Hassankhan, A., Graafsma, T., Bohlmeijer, E., & de Jong, J. (2019). How WEIRD are positive psychology interventions? A bibliometric analysis of randomized controlled trials on the science of well-being. *The Journal of Positive Psychology*, *14*(4), 489–501.

https://doi.org/10.1080/17439760.2018.1484941

Huberty, J., Green, J., Glissmann, C., Larkey, L., & Lee, C. (o. J.). *Testing the efficacy of a mindfulness meditation*. <u>https://doi.org/10.2196/mhealth.14273</u>

Kavvadas, D., Kavvada, A., Karachrysafi, S., Papaliagkas, V., Chatzidimitriou, M., & Papamitsou, T. (2023). Stress, anxiety, and depression levels among university students: Three years from the beginning of the pandemic. *Clinics and Practice*, *13*(3), 596–609. <u>https://doi.org/10.3390/clinpract13030054</u>

Khan, A. R., & Rieger, E. (2024). Eliciting student perspectives to inform the design of positive psychology courses: a qualitative study. *Pastoral Care in Education*, *42*(3), 343–363. <u>https://doi.org/10.1080/02643944.2023.2247396</u>

Lambert, L., Passmore, H.-A., & Joshanloo, M. (2019). A positive psychology intervention program in a culturally-diverse university: Boosting happiness and reducing fear. *Journal of Happiness Studies*, 20(4), 1141–1162. <u>https://doi.org/10.1007/s10902-018-9993-z</u>

Li, X., Malli, M. A., Cosco, T. D., & Zhou, G. (2024). The relationship between selfcompassion and resilience in the general population: Protocol for a systematic review and meta-analysis. *JMIR Research Protocols*, *13*(1), e60154. <u>https://doi.org/10.2196/60154</u>

Liu, X., Ping, S., & Gao, W. (2019). Changes in undergraduate students' psychological well-being as they experience university life. *International Journal of Environmental Research and Public Health*, *16*(16), 2864. https://doi.org/10.3390/ijerph16162864

Lomas, T., Waters, L., Williams, P., Oades, L. G., & Kern, M. L. (2021). Third wave positive psychology: broadening towards complexity. *The Journal of Positive Psychology*, *16*(5), 660–674. <u>https://doi.org/10.1080/17439760.2020.1805501</u>

Manyeruke, G., & Ergün, D. (2022). Mental health, loneliness and social support during covid-19 pandemic among International University Students in North Cyprus. *Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi*, 4(3), 211-221. <u>https://psycnet.apa.org/record/2023-</u> <u>99581-001</u> Michel, T., Tachtler, F., Slovak, P., & Fitzpatrick, G. (2020). Young people's attitude toward positive psychology interventions: Thematic analysis. *JMIR Human Factors*, *7*(4), e21145. <u>https://doi.org/10.2196/21145</u>

Norbury, R., & Evans, S. (2019). Time to think: Subjective sleep quality, trait anxiety and university start time. *Psychiatry Research*, 271, 214–219. https://doi.org/10.1016/j.psychres.2018.11.054

Oguntayo, R., Reyes, V. P., Meza, G. O., & Vega, M. G. (2024). The Feasibility, Acceptability, and Efficacy of Cognitive Resilience Training among College Students with Mental Health Symptoms: A Parallel Group-Randomized Trial Protocol. *i-Manager's Journal on Educational Psychology*, *18*(1), 1. <u>https://doi.org/10.26634/jpsy.18.1.20977</u>

Roldán-Espínola, L., Riera-Serra, P., Roca, M., García-Toro, M., Coronado-Simsic, V., Castro, A., Navarra-Ventura, G., Vilagut, G., Alayo, I., Ballester, L., Blasco, M. J., Almenara, J., Cebrià, A. I., Echeburúa, E., Gabilondo, A., Lagares, C., Piqueras, J. A., Soto-Sanz, V., Mortier, P., ... Gili, M. (2024). Depression and lifestyle among university students: A one-year follow-up study. *The European Journal of Psychiatry*, *38*(3), 100250. https://doi.org/10.1016/j.ejpsy.2024.100250

Seligman, M. E. P. (2011). Flourish: A visionary new understanding of happiness and well- being. New York, NY: Free Press

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). *Positive psychology: An introduction. American Psychologist*, 55(1), 5–14. <u>https://doi.org/10.1037/0003-066x.55.1.5</u>

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). *Positive Psychology Progress: Empirical Validation of Interventions. American Psychologist*, 60(5), 410– 421. <u>https://doi.org/10.1037/0003-066X.60.5.410</u>

Sheldon, E., Simmonds-Buckley, M., Bone, C., Mascarenhas, T., Chan, N., Wincott, M., Gleeson, H., Sow, K., Hind, D., & Barkham, M. (2021). Prevalence and risk factors for mental health problems in university undergraduate students: A systematic review with metaanalysis. *Journal of Affective Disorders*, *287*, 282–292.

https://doi.org/10.1016/j.jad.2021.03.054

Sheldon, K. M., & King, L. (2001). Why positive psychology is necessary. *The American Psychologist*, 56(3), 216–217. <u>https://doi.org/10.1037/0003-066x.56.3.216</u>

Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly metaanalysis. *Journal of Clinical Psychology*, 65(5), 467–487. <u>https://doi.org/10.1002/jclp.20593</u> Sowmya, D. S. (2024). Embracing self-compassion: A cornerstone of student wellbeing. In *Advances in Educational Marketing, Administration, and Leadership* (S. 103–140). IGI Global. <u>https://doi.org/10.4018/979-8-3693-1455-5.ch005</u>

Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A. R., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review*, *107*(3), 411–429. <u>https://doi.org/10.1037/0033-295X.107.3.411</u>.

Tejada-Gallardo, C., Blasco-Belled, A., Torrelles-Nadal, C., & Alsinet, C. (2020). Effects of school-based multicomponent positive psychology interventions on well-being and distress in adolescents: A systematic review and meta-analysis. *Journal of Youth and Adolescence*, *49*(10), 1943–1960. <u>https://doi.org/10.1007/s10964-020-01289-9</u>

Tönis, K. J. M., Kraiss, J. T., Drossaert, C. H. C., Karreman, J., Oostinga, M. S. D., Kloos, N., Austin, J., & Bohlmeijer, E. T. (2024). Regaining mental well-being in the aftermath of the Covid-19 pandemic with a digital multicomponent positive psychology intervention: A randomized controlled trial. *Journal of Happiness Studies*, *25*(7), 1–26. https://doi.org/10.1007/s10902-024-00793-0

Tran, A., Tran, L., Geghre, N., Darmon, D., Rampal, M., Brandone, D., Gozzo, J.-M., Haas, H., Rebouillat-Savy, K., Caci, H., & Avillach, P. (2017). Health assessment of French university students and risk factors associated with mental health disorders. *PloS One*, *12*(11), e0188187. <u>https://doi.org/10.1371/journal.pone.0188187</u>

University of Twente. (2025, June). *Sona System hours*. <u>https://www.utwente.nl/en/psy/bachelor/test-subject-hours/</u>

Wang, F., Guo, J., & Yang, G. (2023). Study on positive psychology from 1999 to 2021: A bibliometric analysis. *Frontiers in psychology*, *14*.

https://doi.org/10.3389/fpsyg.2023.1101157

Waters, L. (2011). A review of school-based positive psychology interventions. *The Australian Educational and Developmental Psychologist*, 28(2), 75–90. <u>https://doi.org/10.1375/aedp.28.2.75</u>

Woller, S. J., Boffa, J. W., Viana, A. G., Albanese, B. J., & Vujanovic, A. A. (2025). PTSD symptoms, suicidal ideation, and suicidal risk among university students: The role of shame. *Psychological Trauma: Theory, Research, Practice and Policy*, *17*(1), 145–153. https://doi.org/10.1037/tra0001829 van Zyl, L. E., Gaffaney, J., van der Vaart, L., Dik, B. J., & Donaldson, S. I. (2023). The critiques and criticisms of positive psychology: A systematic review. *The Journal of Positive Psychology*, 1–30. <u>https://doi.org/10.1080/17439760.2023.2178956</u>

Appendix 1

Interview Scheme

Introduction

- 1. What phase of your study are you in? (e.g. first year, etc.)
- 2. What causes you stress during your studies?
- 3. What was the reason you signed up yourself for the study?
- 4. Are you familiar with positive psychology? [ask further. What do you know about it?]

Definition: Positive psychology is the science around well-being. Unlike traditional psychology, which often focuses on symptoms, positive psychology asks: What helps you to feel good, to grow, and to live a fulfilling life

- 5. Do you have any experience with practicing positive psychology exercises? [ask further. When do you use them, specific situations?]
- 6. When do you think students can benefit from positive psychology exercises?

The app.

- 7. What modules of the app did you finish?
- 8. What do you think about the app in general?

Changes

- 9. Have you experienced any changes in doing/feeling/thinking since you started using the app? What changes did you experienced?
- 10. Did you expect these things to change before starting to use the app? [ask for each mentioned change]
- 11. Do you think these changes would also have happened if you had not used the app? [ask for each mentioned change]
- 12. How important are these changes for you/your life? [ask for each mentioned change]
- 13. Has anything changed for the worse since you started using the app?
- 14. Is there anything that you wanted or hoped to change/improve by using the app, but that hasn't changed?

(un)helpful aspects of the app

- 15. Which elements or aspects of the app do you think have contributed to the various changes that you have experienced? (both inside and outside the app)
- 16. Can you tell me what has been helpful about the app? (e.g. specific exercises)
- 17. What did you like about the app? (exercises? Features?)
- 18. Which elements or exercise in the app have been hindering, unhelpful, negative or disappointing for you? (e.g. specific exercises)
- 19. Where there things in the app that were difficult or painful, but still okay or perhaps helpful? What kind of things/exercises?
- 20. What did you not like about the app? (exercises? Features?)
- 21. Did you experience any barriers or challenges to use the app? (inside the app?) Outside the app?)

Improvement

- 22. Did you miss anything in the app that could be helpful? A specific exercise? Topics to be discussed?
- 23. Do you have any suggestions for us to further improve the app?
- 24. Did you miss any functionalities related to personalisation? (What kind of functions did you want to have?)

Implementation

- 25. When we would like to broader implement or promote this app among students, what tips could you give us?
- 26. When do you recommend us to inform students about the app? (e.g. specific study phase)
- 27. How would you like to be informed about the app? (e.g. via Canvas, study advisor etc.)
- 28. Do you think it might be helpful to do the app in, unguided, groups? So one can exchange experiences and support each other?
- 29. Would you be willing to participate in a cocreation group discussing optimal implementation strategies?

Round up

- 30. \overline{W} hat did you learn from the app?
- 31. Is there anything you want to say about the app, the content, the design or about stress among students in general?