



# Gratitude in the Time of the Coronavirus: A Thematic Analysis of the Three Good Things in Young Adults

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## Abstract

The COVID-19 pandemic has significantly disrupted the daily lives of college students, resulting in elevated levels of stress, anxiety, and isolation. Research suggests positive psychology interventions aimed at practicing gratitude, offer potential benefits in reducing these common mental health problems. However, there is a limited understanding of how or why these interventions work nor what function gratitude plays in the lives of young adults during the COVID-19 pandemic. As such, the purpose of the paper was to explore the sources and targets of gratitude of college students during the COVID-19 lockdown in Ireland. This study aimed analyse the content of the 'Three Good Things' intervention as reported by young adults during the COVID-19 lockdowns in Ireland. A total of 109 college students participated in a 7-day online 'Three Good Things' intervention, where they were prompted to reflect on and document three positive experiences each day. Participants were asked to elaborate on how these experiences made them feel and to highlight their role in facilitating these positive experiences. Thematic analysis was used to analyze the 2,200 submitted responses. The findings revealed three overarching themes relating to participants' expressions of gratitude during the COVID-19 lockdown: (1) cultivating positive social interactions, (2) prioritizing meaningful self-care, and (3) fostering hope for a more normal life post-pandemic. By delving into the lived experiences of college students, this study sheds light on the elements central to their expressions of gratitude during the COVID-19 pandemic. The findings underscore the importance of social connections, self-care practices, and hopeful prospects as sources of gratitude among students.

**Keywords** Gratitude · Thematic Analysis · College Students · Positive Psychology · Pandemic

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## 1 Introduction

Since being declared a global pandemic in March 2020, the COVID-19 virus caused significant disruptions to economic growth, societal functioning, and individual wellbeing (van Zyl et al., 2021). In the absence of medical intervention and treatment strategies, the only effective way to manage public health was to attempt to limit the spread of the virus through controlling person-to-person infections via non-pharmaceutical interventions (NPIs) such as social distancing, self-quarantine, mask-wearing and country-wide lockdowns (Wilder-Smith & Freedman, 2020). Although these NPIs became common practice during later waves of the pandemic, different countries attempted to implement alternative forms of NPIs as a means to balance the need to manage the spread of the disease with the need to ensure effective societal functioning and wellbeing.

In Italy, Spain, and France, governments enforced more stringent national lockdown measures by forcing citizens to remain at home and prohibiting non-essential travel (de Haas et al., 2020). In contrast, countries like Sweden and the Czech Republic decided to implement less restrictive or “soft lockdown” measures which permitted activities such as going to restaurants, attending school, and going to work as a means to help individuals to maintain a relatively uninterrupted daily (Kavaliunas et al., 2020). In the Netherlands, a more moderate approach was initially adopted, which involved a case-based isolation strategy, coupled with limitations on travel, social isolation, social distancing, self-quarantine and the cancellation of public events (Van Zyl, 2021). Although different countries implemented different forms of NPIs, none were more restrictive than those implemented by the Irish government. According to the Oxford COVID-19 Government response tracker, Ireland employed the strictest lockdown measures in Europe and ranked as the fourth strictest in the world (Brent, 2021). During the data collection period for this study, Ireland was under Level 5 restrictions which implied a stay-at-home order, travel was limited to within 5 km of one’s primary residence, homeschooling was the norm, no visitors was allowed indoors or outdoors and mask-wearing was compulsory in all public places (Brent, 2021). The reasons for such a strict lockdown in Ireland included the low number of ICU beds in the public health system (255 in total or 5.5 per 100,000, one of the lowest in the OECD where the average is 12) (Burke et al., 2021).

Although these measures affected the entire Irish populous, research suggests that certain population groups were more vulnerable to the onset of common mental health problems as a result thereof (Fried, 2020). According to Van Zyl (2021), college students were three times more likely to develop severe psychopathology and mood disorders due to these restrictions than any other age-matched population group. During the pandemic, research showed that one in three students reported severe psychological distress from social isolation, loneliness, and a lack of social contact, coupled with the ever-increasing study-related demands and stressors resulting from the change to online education (Fried, 2020). These stressors are above and beyond the challenges students normally face due to drastic life changes (due to living away from one’s family for the first time), intensive educational programmes, extreme time pressures due to strict deadlines, poor relationships with peers/lecturers, peer pressure, social-comparison and the like (Basson & Rothmann, 2019; Van

Zyl, 2021; van Zyl et al., 2021). The cumulative effect of both normal academic pressures and those challenges brought on by the pandemic leads to adverse effects on students' physical health, mental health, personal relationships, and life satisfaction, which in turn affects social cognition, academic performance, learning potential and suicide ideation (Fried, 2020). College students are therefore considered an extremely vulnerable group which requires specific resources to cope with the psychological effects of the strict NPIs implemented by the Irish government.

According to the study demands and resources framework (Krifa et al., 2022a; Lesener et al., 2020), the negative effect of these increasing personal- and study demands brought on by the pandemic can be offset when individuals deploy their personal resources. Personal resources refer to the individual characteristics, skills, and abilities students can use to enhance their perceptive control over their study environment, which builds resilience and grit and enhances student-study programme fit (Van Zyl et al., 2022). These personal resources can buffer against the negative impact of high pandemic-related personal and study demands on their mental health and performance (Krifa et al., 2022a, b; Wieners et al., 2021). An important personal resource students often activate is gratitude (Youssef-Morgan et al., 2021). Gratitude as a personal resource is seen as a dispositional affective trait (i.e. the tendency to have a grateful disposition) or an emotional response (i.e. a temporary reactive feeling of gratitude towards receiving a gift or favour from others). Specifically, gratitude is conceptualized as a state of being, an attitude, a personality trait, or a coping mechanism (Emmons & McCullough, 2003). It has been defined as 'a life orientation (e.g., worldview) toward noticing and appreciating the positive in the world' (Wood et al., 2010). When students can show gratitude during their study programmes, it creates positive emotional experiences that help buffer against the negative effect of high study demands on personal and academic outcomes (Dickens, 2017).

Gratitude has been associated with post-traumatic growth and better coping mechanisms (Affleck & Tennen, 1996; Fredrickson, 2004; Jang & Kim, 2017). Expressions of appreciation, such as clapping and cheering for healthcare workers played a role in fostering resilience and reframing the pandemic experience (Jans-Beken, 2021; Kumar et al., 2022). Highly grateful individuals are also more likely to appreciate everyday events (McCullough et al., 2002), helping them cope with stress (Fredrickson, 2004). Cultivating gratitude helps us notice what is good in our lives, increasing awareness of what we often take for granted. In the face of a crisis, including COVID-19, gratitude can help us build resilience (Fredrickson et al., 2003; Jans-Beken, 2021; Kumar et al., 2022), and increase compassion (Datu et al., 2022), reframing the experience so that we can grow from this.

Gratitude during times of crisis can inspire and transform individuals, creating meaning and helping people interpret life as a gift, helping people recover from loss and trauma, and helping people see the bigger picture (Vernon et al., 2009). In line with the broaden-and-build theory, gratitude can help individuals become more open-minded, flexible, and better able to cope (Johnson & Fredrickson, 2005). Awareness of the aspects of daily life that one can be grateful for can foster resilience and positive well-being in an individual. Researchers have developed and tested many ways we can increase our state levels of gratitude, such as a daily gratitude diary (Emmons & McCullough, 2003), writing a gratitude letter (Adair et al., 2020b; Kini

et al., 2016; Seligman et al., 2005; Sheldon & Lyubomirsky, 2006), and listing grateful events (Emmons & McCullough, 2003; Froh et al., 2008; Watkins et al., 2003), including the ‘Three Good Things’ exercise (Guo et al., 2020; Laguna et al., 2021; Lai, 2017; Lai & O’Carroll, 2017; Rippstein-Leuenberger et al., 2017; Seligman et al., 2005; Sexton & Adair, 2019). The Three Good things exercise is a classic gratitude intervention where participants are asked to write down three things that they are grateful for in their lives daily, either for a week, or up to eight weeks.

There are several systematic reviews and meta-analyses examining the effect of these gratitude interventions on wellbeing (Boggiss et al., 2020; Cousin et al., 2020; Cregg & Cheavens, 2021; Davis et al., 2016; Dickens, 2017; Kirca et al., 2023; Komase et al., 2021). These reviews have found a positive influence of gratitude on mental and physical health, including improved sleep quality (Boggiss et al., 2020), improved outcomes for adolescents (Bono et al., 2020), improved well-being (Jans-Beken et al., 2019; Wood et al., 2010), and better health for those with cardiovascular disease (Cousin et al., 2020).

In a meta-analysis of 25 randomized controlled trials, expressing gratitude was found to significantly benefit psychological wellbeing (Kirca et al., 2023). Among health professionals, practising gratitude reduces burnout and improves wellbeing (Adair, Kennedy et al., 2020; Adair et al., 2020).

What little we know about the impact of gratitude interventions on college students during the pandemic is promising, as several small experimental studies have examined its effect on student wellbeing (Geier & Morris, 2022). During COVID-19, American college students had significantly higher levels of wellbeing after a gratitude intervention consisting of ten weekly gratitude journal reflections, compared with a control group (Geier & Morris, 2022). In another study, college students in Hong Kong who were randomized to either gratitude or a kindness online intervention over three weeks had significantly higher positive emotions than the control condition (Datu et al., 2022). In a narrative, non-systematic review of gratitude during COVID-19, Jans-Beker identified trait gratitude to be associated with less anxiety and depression and better wellbeing among college students following the pandemic (Jans-Beken, 2021). Findings from a study promoting student mental health, using Three Good Things’ gratitude exercise was a useful method of supporting individuals during COVID-19 in the US (Wasil et al., 2021).

While gratitude interventions seem to increase wellbeing and lower risk of psychopathology among people of all ages (Bono et al., 2020; Maheux et al., 2021; Wood et al., 2010), the role gratitude plays in the lives of young adults are not so clear. In a meta-analysis of twenty studies examining the effect of gratitude on older children and adolescents, gratitude was found to be largely ineffective compared with active control interventions (Renshaw & Steeves, 2016).

## 2 Method

### 2.1 Research Approach

Data were drawn from the qualitative reflections of participants in an online intervention study. A post-positivistic qualitative thematic content analytic design was employed to explore the sources and targets of gratitude during the COVID-19 lockdowns. Thematic analysis (TA) was used to analyze students' experiences of gratitude during the COVID-19 pandemic through the 'Three Good Things' intervention. TA is a widely used psychological tool for identifying, analyzing, and reporting thematic patterns within data (Braun & Clarke, 2006). It allows for deeper insights into the natural perspectives of participants, as it interprets the meaning and experience of human expressions (Levitt et al., 2017).

### 2.2 Participants

A convenience sampling strategy was employed to recruit 109 university students (mean age=26, SD=9.84.; 77.06% women and 22.94% men) for participation in the study. While 255 students registered to participate, 109 who were aged 18 and over and responded to at least five of the seven days were included. Of the sample population (N=109), 84 were women (77.06%) and 25 were men (22.94%). Participant's ages ranged from 18 to 61, mean age 26 (SD 9.84). All participants were university students. Mean gratitude at baseline was 13.15 (SD 5.34) and mean stress levels were high at 30.09 (SD=9.4). A summary of the demographic details of the participants is presented in Table 1.

### 2.3 Research Procedure

Ethical Approval was received from the local Ethics Committee (Ref: 3,011,202,027, Date: 18/12/2020). Students older than 18 years, fluent in English and registered for a full- or part time degree at a higher educational institution were targeted for participation in this study. An email invitation was sent out to the entire student population,

**Table 1** Participant Characteristics

Measure	N	%
Men	25	22.94
Women	84	77.06
Age, Mean±SD	26±9.84	
<b>College Year</b>		
Undergraduate	71	65.14
Postgraduate	38	34.86
<b>Residence</b>		
Urban	73	66.97
Rural	36	33.03
<b>Living Arrangements</b>		
Living Alone	9	8.25
Living with Family	68	62.39
Living with Friends	32	29.36

explaining the nature of the overall intervention study, describing the program's purpose, clarifying participants' expectations, highlighting participant roles, rights and responsibilities and discussing confidentiality, their right to withdraw and the like. Interested participants were then able to register for the intervention via a Qualtrics Online survey link. The data was collected in February 2021 during level 5 lockdown in Ireland. The duration of the study was 7 days.

A baseline assessment was first distributed to gather basic demographic data, which included age, gender, college year (undergraduate, postgraduate), faculty, residence (urban, rural), and living arrangements (alone, with family, with friends). Participants were also asked to complete pre and post assessments before starting the 7-day intervention. This included were the 6-item Gratitude Questionnaire which measures state gratitude (GQ-6, McCullogh, Emmons & Tsang, 2002) and the 10-item Perceived Stress Scale to measure stress levels (PSS-10, Cohen et al., 1983). For the GQ-6 possible scores range from 5 to 35 with higher scores indicating a higher level of gratitude.

The PSS-10 yields a sum score that describes overall perceived stress, whereby high average scores indicate high levels of stress. Scores ranging from 0 to 13 are considered low stress. Scores ranging from 14 to 26 are considered moderate stress. Scores ranging from 27 to 40 are considered high perceived stress.

The GQ-6 had good internal consistency reliability in the current study ( $\alpha=0.782$ ) and the PSS-10 had a high internal consistency reliability ( $\alpha=0.895$ ).

Participants were invited to submit their email address to receive a reminder and a link to the daily survey. Emails were separate from individual responses in order to ensure anonymity. A reminder was sent to participants at 19:00 GMT on each of the 7 days of the study.

This email included a link to the text boxes that prompted participants to answer the three prompts.

1. *'What are 3 things that went well for you today?'*;
2. *'How did these 3 things make you feel at the time and now that you remember them?'*;
3. *'What was your role in bringing them about?'*.

The information to perform the gratitude-inducing activity included instructions from a similar study (Rippstein-Leuenberger et al., 2017). These questions prompted participants to reflect on their day and recall moments of gratitude experienced on that day, consider how they felt about these and their sense of perceived control or sense of agency in creating what went well for them. Data from each participant was linked using randomly generated IDs within Qualtrics. Once the 7 days of the exercise were completed, participants were distributed a debrief form.

## 2.4 Data Analysis

Paired sample t-tests were used to assess changes in stress levels.

The statements resulting from the journal entries were analyzed using a thematic analysis approach. A semantic approach was applied when analyzing the data, as the

study aimed to explore the good things experienced by participants during the pandemic through their own personal statements. While there were pre-existing inferences for what participants would write about for the duration of the study, the overall focus was to view responses on the surface level. The study analyzed the data from participants who met the inclusion criteria, which resulted in 2,200 statements. Data was analyzed using the 6-phase guide developed by Braun and Clarke (2006), which incorporates TA tools such as coding and pattern recognition.

Initially, the analysis began with the familiarisation of the data, which was first done on a day-to-day basis by reading the responses when the ‘Three Good Things’ challenge was active, and then re-reading once the challenge was over. The next step was to code the statements, resulting in a total of 48 codes across the 7 days of the challenge. As this research was response-driven, the codes directly reflected the statements provided by participants. For example, if the participant wrote about spending quality time with family, then this was coded as ‘quality time’. Corresponding codes were then highlighted, and the emerging theme was created. In one of the themes, the codes ‘making time for others’, ‘family’, ‘sharing the joys’ and ‘supporting others’ were combined to create the primary theme of ‘Cultivating positive social interactions’. Some codes were also discarded at this point due to a lack of belonging to any specific theme or a lack of sufficient data to back up the point.

At this stage, the data was reviewed again to determine if any other codes were relevant to the themes produced. These themes were then refined further, ensuring each theme had enough data to support it and had relevance to the context of the research. Three primary themes emerged from the reviewed data, and these are ‘Cultivating positive social interactions’, ‘Prioritizing meaningful self-care’, and ‘Fostering hope for a more normal life post-pandemic’. Lastly, the overall storyline of the written responses was drafted up using the themes produced and the report was generated.

Participants were assigned a numerical code (e.g., P001=Participant 1), and extracts of results were presented to elucidate the themes. Findings were cross-referenced between the two researchers in order to generate the most robust themes.

### 3 Results

Stress levels among the 102 participants were high at baseline (mean=30.1, SD=9.4). There was a significant improvement in stress levels following the 7-day gratitude intervention ( $t=4.070$ ,  $p<0.001$ ), resulting in moderate stress levels (mean=24.73, SD=6.8). Cohen’s D was 0.65, which indicates a medium effect size.

A total of 2,200 statements from participants were analyzed using thematic analysis techniques, including data familiarisation, pattern recognition, and coding. From these codes, three main themes emerged. The identified themes, as shown in Fig. 1, were ‘Cultivating positive social interactions’, ‘Prioritizing meaningful self-care’, and ‘Fostering hope for a more normal life post-pandemic’. The remaining codes were compiled into a miscellaneous group and were not used for the analysis.

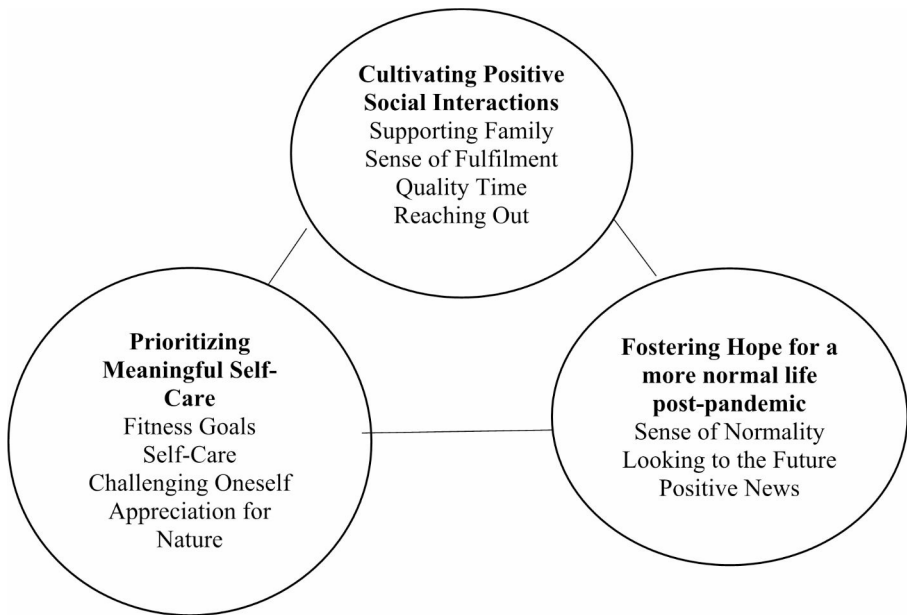


Fig. 1 Schematic representation of thematic findings

### 3.1 Cultivating Positive Social Interactions

The first theme that emerged was ‘Cultivating positive social interactions’. Two types of social interactions were mentioned: online and in-person. Due to harsh Level 5 restrictions in Ireland, social interactions became a rare commodity. In-person interactions with fellow students were infrequent, particularly for those studying remotely. Those who had access to suitable technology, such as FaceTime or Zoom, reported on their gratitude for those situations,

‘Felt glad to talk to [my] best friend face-to-face after a while of only texting and it made things feel more normal’ (P076).

Another participant reported how the lockdown was impacting their relationship with their friends, how they took a proactive approach and made an effort to reach out, admitting that,

‘Lockdown has made me miss friends a lot and I was feeling isolated, after talking to a friend I feel happier and less disconnected from those I love’ (P094).

These feelings of isolation and a sense of disconnect were apparent across the responses, with many admitting they had not been in contact with some friends for a while. While modern technology has made communication instant and seamless, the harsh restrictions of lockdown left people feeling isolated. While many participants wrote about their previous lack of engagement with friends, ‘reaching out’ was a common sub-theme across the study. One participant’s experience of reaching out to a friend they had not spoken to in a while was that they were grateful to hear back from them,



‘I was happy to hear that my friend was doing okay, and it made me less worried about their wellbeing’ (P108).

Online interactions have become an integral part of cultivating positive social interactions during the pandemic. Many new social media platforms have improved the way we can connect through online means. Video conference platforms such as Zoom and Microsoft Teams have created spaces for both educational purposes and interactions between loved ones. Zoom, in particular, became an important platform for maintaining social connection and enhancing engagement. Zoom gained popularity at the beginning of the pandemic for its use of interactive quizzes and games as an alternative to in-person social gatherings. One participant reported their feelings of gratitude for that day were due to attending a Zoom hen,

‘I attended a Zoom hen; I was excited to be attending my first virtual hen; Got dressed up and attended the hen and played the games’ (P044).

Another participant had a positive social interaction over Zoom, reporting that they had an enjoyable call with work colleagues,

‘I enjoyed the Zoom call more than I expected and it was lovely to interact with people considering the current circumstances with COVID’ (P005).

In-person social interactions were found to be just as important to the participants. This was particularly in relation to family members, as the majority of the participants (N=68) lived with their family. One of the most prevalent sub-themes throughout the study was ‘quality time’, referring to the enjoyment of time spent with loved ones. Participants expressed gratitude for having the ability to spend quality time with their family members,

‘I felt grateful that I have a family and get on really well with them; I’m glad I spent time with them instead of being on my phone for the study breaks’ (P088).

These moments of sharing the joys with loved ones encompass the meaning of cultivating positive social interactions. During a time of increased stress and anxiety, participants reported the sense of fulfilment they got from the love and gratitude they feel for loved ones,

‘They [boyfriend and best friend] made me feel loved and grateful for the people I have in my life’ (P077).

These moments of joy and positive social interaction appear to be important and something to be grateful for across the responses.

### 3.2 Priorizing Meaningful Self-Care

As a result of the lockdown, people across the globe reported that their leisure time had significantly increased. This was reflected greatly among participants, as many reported gratitude for participating in leisurely activities. Making the most of meaningful time was reported by every participant during the 7-day study as something to be grateful for. The most prevalent sub-theme reported by participants involved obtaining a fitness goal or partaking in a form of exercise. As the topic of health has become increasingly more important during the pandemic, participants expressed their appreciation for good health and the ability to exercise,

‘It made me feel confident and proud of myself to do my workout and reach my fitness goals. I am grateful to be able to move my body and push it through exercise’ (P101).

Another reported how getting outside for some fresh air and exercise improved their overall mood that day,

‘Going for a lovely walk in the sun earlier made me feel calm and helped relieve college related stress, thinking back I feel happy that I got out and got a bit of exercise’ (P003).

While different forms of exercise were recounted by the participants throughout the study, there was also an appreciation for nature that accompanied many of these responses. In accordance with Level 5 restrictions, Irish citizens were imposed with a limited 5 km radius for exercise. As a result of this, participants during the study reported feelings of gratitude for their local area,

‘I had a beautiful walk on the beach with my family and dog; The walk on the beach made me feel happy to live in such a beautiful location and I experienced a lot of joy and fun by playing with my dog alongside my family’ (P033).

One participant expressed their gratitude for living near a beach, enjoying a walk along it and allowing rejuvenation within themselves,

‘The walk on the beach was one of the highlights of my week, I felt re-energized and happy to be outside’ (P005).

Relaxation was also prevalent among the responses. ‘Self-care’ encompasses the meaning of taking care of oneself that the participants reported on several occasions throughout the study. Different forms of self-care were described, such as enjoying a hobby, learning something new or taking a break. One participant explained how they took the time to take care of themselves by waking up early and making sure they had enough time to focus on caring for themselves,

‘I felt good waking up before I had to as it gave me more time to spend focusing on myself this morning which made me feel good for the rest of the day’ (P054).

Another participant explained how they prioritized their need for relaxation by staying in bed longer that morning,

‘I felt slightly guilty to rather have a nap than doing work, but the nap was cosy and felt refreshing’ (P099).

One participant expressed how they were grateful for finding the motivation to complete their skincare routine, even during a difficult time,

‘I did my full skincare routine this morning; I feel good for keeping my skin clean; I had the resilience and strength to do these things, they may be easy for some people but I struggle to find motivation’ (P050).

Other participants used their time in a meaningful way by connecting with a hobby or learning something new. Having time to enjoy and partake in a hobby was reported by a large number of participants, emphasizing the importance of having meaningful time to oneself. One hobby that was mentioned several times was the enjoyment of reading a book,

‘I really enjoyed reading my book in the sun. It brought home feelings of calm and peace; I allowed myself to have a break from the laptop and enjoy the sun’ (P065).

These moments of self-care and appreciation were integral to the feelings of gratitude expressed by many of the participants.

### 3.3 Fostering hope for a more Normal life post-pandemic

Beyond the good things described by the participants there was a sense of hopefulness and longing for the future. The future in question extends to life beyond restrictions and post-pandemic. During the study, a couple of the participants received positive news that reflected in their good things reports as the thing they were most grateful for that day. Receiving positive news often meant the participant would then reflect on the future and the effect the positive news would have. One participant received the news that their placement opportunity was accepted, and they expressed hopefulness for their future,

‘Like things are finally looking up and moving in a positive direction’ (P029).

Another participant expressed their feelings of hopefulness for the future using nature as an indication of good things to come,

‘I planted some daffodils in the garden; The daffodils made me happy and hopeful for spring’ (P046).

Other participants were excited for their future progression with their studies,

‘I attended a webinar which will be insightful for my PhD; I felt inspired listening to the webinar’ (P044).

While some participants expressed feelings of longing for this future, other participants reminisced about the past, about the freedom that was experienced before the pandemic hit. There is an aura of nostalgia in some of the responses, as participants reminisced on life before the pandemic. One participant expressed their longing for social connections, which have been severely impacted due to continuous lockdowns,

‘I went to the shop with my friend, and we had a laugh; Grateful for my friends as they make me smile and I miss hanging out with them’ (P097).

There is a sense of strength and resilience that can be found within some of the responses, such as this participant who expressed during the study that their father was unwell in hospital, but despite this, they were able to find moments to be grateful for during the day,

‘I was glad that I was able to dig deep enough to find the courage to face the day and get through it and bring everyone else through it with me’ (P080).

The idea of returning to “normality” was expressed as a good thing by the students during the study. The responses pertaining to the theme of ‘a hopeful future’ seem to centre around the progress of eradicating COVID-19 to an extent where it is no longer debilitating to society. During the study, one participant reported they had received their first dose of the vaccine and expressed they were,

‘Excited to be one step closer to normality’ (P072).

Another participant expressed their gratitude for returning to a state of normality as they were told they would be returning to work,

‘I found out that I’m returning to work soon: I was happy that I would get to go back to work soon and get out of the house’ (P061).

While returning to normality was a good thing reported by many participants, one such response highlights how important it is to reflect on all of the good things in life, no matter how small, and the positivity that stems from these things. This quote encompasses the feelings of gratitude for the past, the present and the future that the participant is experiencing,

‘Like my life is full and I’m able to enjoy the way it is now while also looking forward to and working for the future, rather than the now and the future competing against each other’ (P098).

Essentially, this response reflects the importance of maintaining a positive attitude and experiencing feelings of gratitude during a difficult time for so many.

## 4 Discussion

The study aimed to explore the sources and targets of gratitude of college students during the COVID-10 lockdown in Ireland. This study aimed analyse the content of the ‘Three Good Things’ intervention as reported by young adults during the COVID-19 lockdowns in Ireland. The findings revealed three overarching themes relating to participants’ gratitude reflections during the COVID-19 lockdown: (1) cultivating positive social interactions, (2) prioritizing meaningful self-care, and (3) fostering hope for a more normal life post-pandemic. By delving into the lived experiences of college students, this study sheds light on the elements central to their reflections of gratitude during the COVID-19 pandemic. The findings underscore the importance of social connections, self-care practices, and hopeful prospects after the pandemic as sources of gratitude among students.

### 4.1 Cultivating Positive Social Interactions

The first finding highlighted the importance of having positive social interactions on a daily basis, including both online and in-person interactions. As the pandemic challenged social connections, when social interactions did occur, whether in person or on Zoom, participants reported experiencing strong feelings of gratitude. This result is comparable with the qualitative analysis of three good things among health care workers, which found supportive relationships to be commonly reported as a source of gratitude during a two week journaling intervention (Rippstein-Leuenberger et al., 2017).

This finding is not surprising. Gratitude facilitates the development and cultivation of social connections (Algoe et al., 2020) and the importance of social relationships to health and wellbeing is well recognised in the literature (Holt-Lunstad et al., 2010). The rise in reported loneliness after the pandemic is currently considered an epidemic in the US, particularly among young people (Harris, 2023; Liberatore-Maguire et al., 2022; Lin, 2023). Considering how loneliness is closely linked to mental health (Wang et al., 2018), as we move into greater socialization, our finding emphasises the importance of socialising and particularly, in person social interactions. While online connections are useful, they are not a substitute for face-to-face.

### 4.2 Prioritizing Meaningful Self-Care

The importance of taking time to rejuvenate and relax was also an important factor for many participants. Integrating moments of self-care into daily life was reported by many participants as something to be grateful for. Examples of self-care included

walks on the beach, gardening and reading a book in the sunshine. Interestingly, in a cross-sectional study of over 600 participants surveyed in Ireland end of March 2020, those who reported a significant increase in positive responders was associated with spending time spent outdoors, either exercising, gardening, pursuing hobbies, and taking care of children (Lades et al., 2020). In a study conducted of University students in the US examining the role of gratitude during COVID-19, strengthened interpersonal connections and more meaningful time, as a positive change resulting from the pandemic (Kumar et al., 2022).

Making meaningful use of self-determined time was also a theme identified by Rippstein-Leuenberger and colleagues in their study of three good things among health care workers (Rippstein-Leuenberger et al., 2017). While this study was conducted pre-pandemic, it was interesting to note how much participants valued spending 'me time', whether this was exercising, relaxing, reading a book, or gardening, this was time where participants were able to practice self-care. A qualitative study conducted in the UK involved interviewing 40 young people and 28 older people to examine positive psychological experiences during COVID-19 pandemic. Engaging in self-fulfilling activities was identified as an important source of positive experiences and coping, and this included practicing hobbies and appreciating finally having the time to engage in wellness activities such as exercise and meditation (Ooi et al., 2023). It is essential that students make time to look after themselves in meaningful ways. This is something for them to be consciously aware of and intentionally seek out in order to cope with stress and challenges during their time at University.

### 4.3 Fostering a Hope for the Future

The last finding showed that participants expressed a strong desire for the end of restrictions and a return to normal life; demonstrating a sense of longing for pre-pandemic times. Reuniting with loved ones and socializing with fellow students were the most sought after post-lockdown activities. Additionally, participants expressed gratitude for future endeavors, such as career progression and job placement opportunities. This theme aligns with the concept of a hopeful future, wherein participants demonstrated gratitude for the prospect of returning to normality. This finding is supported by an experiment examining the relationship between gratitude and hope, testing both trait and state gratitude. Participants who were randomised to the gratitude condition had a significant increase in hope, compared with the control group (Witvliet et al., 2019). Hope and having a positive expectation about the future is important for us to promote and harness mental health and consciously cultivating an attitude of gratitude can build hope and help cushion us during challenging times.

#### 4.3.1 Limitations and Recommendations

Despite this study's contribution, it is not without its limitations. One of the main limitations for this study was the high drop-out rate during the 7 days. The inclusion criteria for the study required participants to answer a minimum of 5 out of the 7 days, those who did not were manually removed from the study and their written responses discarded. Due to this, there was a significant loss of written responses,

as only 109 of the original 255 participants could be included, as many answered only one or two days. Future research should examine the gratitude themes emerging from all participants to see if new patterns emerge from the data. This would then increase the responses available to be analyzed, thus expanding on the themes produced. In addition, more person-specific data collection methods would have helped to gain a more in-depth understanding of the themes. Future studies should use one-to-one interviews to examine in-depth experiences of gratitude, helping to advance our understanding of the complexity of gratitude, including multidimensional levels such as the cognitive, attitudinal, and behavioural aspects, rather than simply focusing on the affective aspect.

Another methodological limitation in our study was the wording used one of our questions, where we asked how the three things made the participant feel ‘at the time’ and ‘now’. This was a double-weighted question and should have been asked as two separate questions. Another limitation to the study was the overrepresentation of female students. The demographic results revealed that of the 109 participants, 84 were women (77.06%) and 25 were men (22.94%). While this might indicate female students are more interested in gratitude interventions, further research over a larger student population should be undertaken to confirm this. While female overrepresentation is common in psychology research, especially in undergraduate pools (Dickinson et al., 2012), there are gender issues in gratitude research that need to be considered in future research. Previous studies on these issues suggest that male participants make more critical evaluations of gratitude than their female counterparts and are less likely to achieve the benefits of practising gratitude (Kashdan et al., 2009).

## 5 Conclusion

This study provides valuable insights into the sources and targets of college students’ gratitude during the COVID-19 lockdowns in Ireland. The findings denote the importance of positive social interactions, prioritizing meaningful self-care, and fostering hope for a more normal life post-pandemic. Understanding these factors can inform individual-level interventions and strategies that could help build resilience and enhance the well-being of college students during challenging times.

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## Declarations

**Ethical Approval** The research was approved by University College Cork’s ethics review board (No: 33011202027).

**Informed Consent** Informed consent was obtained from all individual participants before participating in the study.

**Conflict of Interest** The authors declare that they have no conflicts of interest.

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## References

- Adair, K. C., Kennedy, L. A., & Sexton, J. B. (2020). Three good tools: Positively reflecting backwards and forwards is associated with robust improvements in well-being across three distinct interventions. *The Journal of Positive Psychology, 15*(5), 613–622. <https://doi.org/10.1080/17439760.2020.1789707>.
- Adair, K. C., Rodriguez-Homs, L. G., Masoud, S., Mosca, P. J., & Sexton, J. B. (2020b). Gratitude at Work: Prospective cohort study of a Web-Based, Single-Exposure Well-Being Intervention for Health Care Workers. *Journal of Medical Internet Research, 22*(5), e15562. <https://doi.org/10.2196/15562>.
- Affleck, G., & Tennen, H. (1996). Construing benefits from adversity: Adaptational significance and dispositional underpinnings. *Journal of Personality, 64*(4), 899–922. <https://doi.org/10.1111/j.1467-6494.1996.tb00948.x>.
- Algoe, S. B., Dwyer, P. C., Young, A., & Oveis, C. (2020). A new perspective on the social functions of emotions: Gratitude and the witnessing effect. *J Pers Soc Psychol, 119*(1), 40–74. <https://doi.org/10.1037/pspi0000202>.
- Basson, M. J., & Rothmann, S. (2019). Pathways to flourishing among pharmacy students: The role of study demands and lecturer support. *Journal of Psychology in Africa, 29*(4), 338–345. <https://doi.org/10.1080/14330237.2019.1647953>.
- Boggiss, A. L., Considine, N. S., Brenton-Peters, J. M., Hofman, P. L., & Serlachius, A. S. (2020). A systematic review of gratitude interventions: Effects on physical health and health behaviors. *Journal of Psychosomatic Research, 135*, 110165. <https://doi.org/10.1016/j.jpsychores.2020.110165>.
- Bono, G., Mangan, S., Fauteux, M., & Sender, J. (2020). A new approach to gratitude interventions in high schools that supports student wellbeing. *The Journal of Positive Psychology, 15*, 657–665. <https://doi.org/10.1080/17439760.2020.1789712>.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101.
- Brent, H. (2021). 23rd February 2021). Ireland's coronavirus lockdown ranked toughest in Europe, and 4th toughest in the world. *The Irish POST*. <https://www.irishpost.com/news/irelands-coronavirus-lockdown-ranked-toughest-in-europe-and-4th-toughest-in-the-world-204462>.
- Burke, S., Parker, S., Fleming, P., Barry, S., & Thomas, S. (2021). Building health system resilience through policy development in response to COVID-19 in Ireland: From shock to reform. *Lancet Reg Health Eur, 9*, 100223. <https://doi.org/10.1016/j.lanepe.2021.100223>.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385–396. <https://doi.org/10.2307/2136404>.
- Cousin, L., Redwine, L., Bricker, C., Kip, K. E., & Buck, H. (2020). Effect of gratitude on cardiovascular health outcomes: A state-of-the-science review. *The Journal of Positive Psychology, 16*(3), <https://doi.org/10.1080/17439760.2020.1716054>.
- Cregg, D. R., & Cheavens, J. S. (2021). Gratitude interventions: Effective Self-help? A Meta-analysis of the impact on symptoms of depression and anxiety. *Journal of Happiness Studies, 22*, 413–445. <https://doi.org/10.1007/s10902-020-00236-6>.
- Datu, J. A. D., Valdez, J. P. M., McInerney, D. M., & Cayubit, R. F. (2022). The effects of gratitude and kindness on life satisfaction, positive emotions, negative emotions, and COVID-19 anxiety: An online pilot experimental study. *Appl Psychol Health Well Being, 14*(2), 347–361. <https://doi.org/10.1111/aphw.12306>.

- Davis, D. E., Choe, E., Meyers, J., Wade, N., Varjas, K., Gifford, A., & Worthington, E. L. (2016). Thankful for the little things: A meta-analysis of gratitude interventions. *Journal of Counseling Psychology, 63*(1), 20–31. <https://doi.org/10.1037/cou0000107>.
- de Haas, M., Faber, R., & Hamersma, M. (2020). How COVID-19 and the Dutch 'intelligent lockdown' change activities, work and travel behaviour: Evidence from longitudinal data in the Netherlands. *Transportation Research Interdisciplinary Perspectives, 6*(1), <https://doi.org/10.1016/j.trip.2020.100150>.
- Dickens, L. R. (2017). Using gratitude to promote positive change: A series of meta-analyses investigating the effectiveness of gratitude interventions. *Basic and Applied Social Psychology, 39*(4), 193–208. <https://doi.org/10.1080/01973533.2017.1323638>
- Dickinson, E. R., Adelson, J. L., & Owen, J. (2012). Gender balance, representativeness, and statistical power in sexuality research using undergraduate student samples. *Archives of Sexual Behavior, 41*(2), 325–327. <https://doi.org/10.1007/s10508-011-9887-1>.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *J Pers Soc Psychol, 84*(2), 377–389. <https://doi.org/10.1037//0022-3514.84.2.377>.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences, 359*(1449), 1367–1378.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the Terrorist Attacks on the United States on September 11th, 2001. *J Pers Soc Psychol, 84*(2), 365–376.
- Fried, E. I. (2020). Mental health and social contact during the COVID-19 pandemic: An ecological momentary assessment study. *PsyArXiv*. <https://doi.org/10.31234/osf.io/36xkp>.
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*(2), 213–233. <https://doi.org/10.1016/j.jsp.2007.03.005>.
- Geier, M. T., & Morris, J. (2022). The impact of a gratitude intervention on mental well-being during COVID-19: A quasi-experimental study of university students. *Appl Psychol Health Well Being, 14*(3), 937–948. <https://doi.org/10.1111/aphw.12359>.
- Guo, Y. F., Lam, L., Plummer, V., Cross, W., & Zhang, J. P. (2020). A WeChat-based three good things positive psychotherapy for the improvement of job performance and self-efficacy in nurses with burnout symptoms: A randomized controlled trial. *J Nurs Manag, 28*(3), 480–487. <https://doi.org/10.1111/jonm.12927>.
- Harris, E. (2023). Surgeon General offers Strategy to tackle epidemic of loneliness. *Journal of the American Medical Association*. <https://doi.org/10.1001/jama.2023.8662>.
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *Plos Medicine, 7*(7), e1000316. <https://doi.org/10.1371/journal.pmed.1000316>.
- Jang, H., & Kim, J. (2017). Meta-analysis on relationship between post-traumatic growth and related variables. *Kor J Counsel, 18*, 85–105. <https://doi.org/10.15703/kjc.18.5.201710.85>.
- Jans-Beken, L. (2021). A perspective on mature Gratitude as a way of coping with COVID-19. *Frontiers in Psychology, 12*, 632911. <https://doi.org/10.3389/fpsyg.2021.632911>.
- Jans-Beken, L., Jacobs, N., Janssens, M., Peeters, S., Reijnders, J., Lechner, L., & Lataster, J. (2019). Gratitude and health: An updated review. *The Journal of Positive Psychology, 15*, 743–782. <https://doi.org/10.1080/17439760.2019.1651888>.
- Johnson, K. J., & Fredrickson, B. L. (2005). We all look the same to me: Positive emotions eliminate the own-race in face recognition. *Psychological Science, 16*(11), 875–881.
- Kavaliunas, A., Ocaya, P., Mumper, J., Lindfeldt, I., & Kyhlstedt, M. (2020). Swedish policy analysis for Covid-19. *Health Policy Technol, 9*(4), 598–612. <https://doi.org/10.1016/j.hlpt.2020.08.009>.
- Kashdan, T. B., Mishra, A., Breen, W. E., & Froh, J. J. (2009). Gender differences in gratitude: Examining appraisals, narratives, the willingness to express emotions, and changes in psychological needs. *Journal of personality, 77*(3), 691–730. <https://doi.org/10.1111/j.1467-6494.2009.00562.x>
- Kini, P., Wong, J., McInnis, S., Gabana, N., & Brown, J. W. (2016). The effects of gratitude expression on neural activity. *Neuroimage, 128*, 1–10. <https://doi.org/10.1016/j.neuroimage.2015.12.040>.
- Kirca, A., Malouff, M. J., & Meynadier, J. (2023). The effect of expressed Gratitude interventions on psychological wellbeing: A Meta-analysis of Randomised Controlled studies. *Int J Appl Posit Psychol, 8*, 63–86. <https://doi.org/10.1007/s41042-023-00086-6>.



- Krifa, I., Hallez, Q., van Zyl, L. E., Braham, A., Sahli, J., Ben Nasr, S., & Shankland, R. (2022a). Effectiveness of an online positive psychology intervention among Tunisian healthcare students on mental health and study engagement during the Covid-19 pandemic. *Appl Psychol Health Well Being*, 14(4), 1228–1254. <https://doi.org/10.1111/aphw.12332>.
- Krifa, I., van Zyl, L. E., Braham, A., Ben Nasr, S., & Shankland, R. (2022b). Mental Health during COVID-19 pandemic: The role of optimism and emotional regulation. *International Journal of Environmental Research and Public Health*, 19(3), <https://doi.org/10.3390/ijerph19031413>.
- Komase, Y., Watanabe, K., Hori, D., Nozawa, K., Hidaka, Y., Iida, M., & Kawakami, N. (2021). Effects of gratitude intervention on mental health and well-being among workers: A systematic review. *Journal of Occupational Health*, 63(1), e12290. <https://doi.org/10.1002/1348-9585.12290>.
- Kumar, S. A., Edwards, M. E., Grandgenett, H. M., Scherer, L. L., DiLillo, D., & Jaffe, A. E. (2022). Does Gratitude promote Resilience during a pandemic? An Examination of Mental Health and Positivity at the Onset of COVID-19. *Journal of Happiness Studies*, 23(7), 3463–3483. <https://doi.org/10.1007/s10902-022-00554-x>.
- Lades, L. K., Laffan, K., Daly, M., & Delaney, L. (2020). Daily emotional well-being during the COVID-19 pandemic. *The British Journal of Health Psychology*, 25(4), 902–911. <https://doi.org/10.1111/bjhp.12450>.
- Laguna, M., Kedra, M., & Mazur-Socha, Z. (2021). A randomized placebo-controlled study on the effectiveness of the three good things for others intervention. *Frontiers in Psychology*, 12, 661336. <https://doi.org/10.3389/fpsyg.2021.661336>.
- Lai, S. T. (2017). The three good things – the effects of gratitude practice on wellbeing: A randomised controlled trial. *Health Psychology Update*, 26, 10.
- Lai, T. S., & O'Carroll, R. E. (2017). The three good things – the effects of gratitude practice on wellbeing: A randomised controlled trial. *Health Psychology Update*, 26(6), 10–18. <https://doi.org/10.13140/RG.2.1.2502.6084>.
- Lesener, T., Pleiss, L. S., Gusy, B., & Wolter, C. (2020). The study demands-resources Framework: An empirical introduction. *International Journal of Environmental Research and Public Health*, 17(14), <https://doi.org/10.3390/ijerph17145183>.
- Levitt, H. M., Motulsky, S. L., Wertz, F. J., Morrow, S. L., & Ponterotto, J. G. (2017). Recommendations for Designing and reviewing qualitative research in psychology: Promoting Methodological Integrity. *Qualitative Psychology American Psychological Association*, 4, 2–22. <https://doi.org/10.1037/qup0000082>.
- Liberatore-Maguire, E., Devlin, A., Fisher, S., Ramsey, F., Grunwald, H., Brownstein, K., & Morrison, M. F. (2022). The unseen epidemic: Trauma and loneliness in urban midlife women. *Womens Midlife Health*, 8(1), 11. <https://doi.org/10.1186/s40695-022-00080-z>.
- Lin, S. L. (2023). The loneliness epidemic, intersecting risk factors and relations to mental health help-seeking: A population-based study during COVID-19 lockdown in Canada. *Journal of Affective Disorders*, 320, 7–17. <https://doi.org/10.1016/j.jad.2022.08.131>.
- Maheux, A. J., Nesi, J., Galla, B. M., Roberts, S. R., & Choukas-Bradley, S. (2021). #Grateful: Longitudinal associations between adolescents' Social Media Use and Gratitude during the COVID-19 pandemic. *J Res Adolesc*, 31(3), 734–747. <https://doi.org/10.1111/jora.12650>.
- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *J Pers Soc Psychol*, 82(1), 112–127.
- Ooi, L., Paul, E., Burton, A., Fancourt, D., & McKinlay, A. R. (2023). A qualitative study of positive psychological experiences and helpful coping behaviours among young people and older adults in the UK during the COVID-19 pandemic. *PLoS One*, 18(1), e0279205. <https://doi.org/10.1371/journal.pone.0279205>.
- Renshaw, T. L., & Steeves, R. M. O. (2016). What good is gratitude in youth and schools? A systematic review and meta-analysis of correlates and intervention outcomes. *Psychology in the Schools*, 53, 286–305. <https://doi.org/10.1002/pits.21903>.
- Rippstein-Leuenberger, K., Mauthner, O., Bryan Sexton, J., & Schwendimann, R. (2017). A qualitative analysis of the three good things intervention in healthcare workers. *British Medical Journal Open*, 7(5), e015826. <https://doi.org/10.1136/bmjopen-2017-015826>.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410–421.

- Sexton, J. B., & Adair, K. C. (2019). Forty-five good things: A prospective pilot study of the three good things well-being intervention in the USA for healthcare worker emotional exhaustion, depression, work-life balance and happiness. *British Medical Journal Open*, *9*(3), e022695. <https://doi.org/10.1136/bmjopen-2018-022695>.
- Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *Journal of Positive Psychology*, *1*, 73–82. <https://doi.org/10.1080/17439760500510676>.
- Van Zyl, L. E. (2021). Social Study resources and Social Wellbeing before and during the Intelligent COVID-19 Lockdown in the Netherlands. *Social Indicators Research*, *157*(1), 393–415. <https://doi.org/10.1007/s11205-021-02654-2>.
- van Zyl, L. E., Rothmann, S., & Zondervan-Zwijenburg, M. A. J. (2021). Longitudinal Trajectories of Study Characteristics and Mental Health before and during the COVID-19 Lockdown. *Frontiers in Psychology*, *12*, 633533. <https://doi.org/10.3389/fpsyg.2021.633533>.
- Van Zyl, L. E., Heijenck, B., Klibert, J., Shankland, R., Verger, N. B., Rothmann, S., Cho, V., Feng, K., See-To, E. W. K., Roll, L. C., & Van Der Meij, L. (2022). Grit across nations: An investigation into the cross-cultural equivalence of the Grit-O scale. *Journal of Happiness Studies*, *3*, 3179–3213. <https://doi.org/10.1007/s10902-022-00543-0>.
- Vernon, L. L., Dillon, J. M., & Steiner, A. R. (2009). Proactive coping, gratitude, and posttraumatic stress disorder in college women. *Anxiety Stress and Coping*, *22*(1), 117–127. <https://doi.org/10.1080/10615800802203751>.
- Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *Bmc Psychiatry*, *18*(1), 156. <https://doi.org/10.1186/s12888-018-1736-5>.
- Wasil, A. R., Taylor, M. E., Franzen, R. E., Steinberg, J. S., & DeRubeis, R. J. (2021). Promoting Graduate Student Mental Health during COVID-19: Acceptability, feasibility, and Perceived Utility of an online single-Session intervention. *Frontiers in Psychology*, *12*, 569785. <https://doi.org/10.3389/fpsyg.2021.569785>.
- Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality*, *31*(5), 431–452. <https://doi.org/10.2224/sbp.2003.31.5.431>.
- Wieners, L., Radstaak, M., Van Zyl, L. E., & Schotanus-Dijkstra, M. (2021). To whom should I be kind? A randomized trial about kindness for strong and weak social ties on mental wellbeing and its specific mechanisms of change. *International Journal of Wellbeing*, *11*, 1–23. <https://doi.org/10.5502/ijw.v11i4.1489>.
- Wilder-Smith, A., & Freedman, D. O. (2020). Isolation, quarantine, social distancing and community containment: Pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. *Journal of Travel Medicine: Official Publication of the International Society of Travel Medicine and the Asia Pacific Travel Health Association*, *27*(2), <https://doi.org/10.1093/jtm/taaa020>.
- Witvliet, C., Richie, F. J., Luna, R., L. M., & Van Tongeren, D. R. (2019). Gratitude predicts hope and happiness: A two-study assessment of traits and states. *The Journal of Positive Psychology*, *14*, 271–282. <https://doi.org/10.1080/17439760.2018.1424924>.
- Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, *30*(7), 890–905. <https://doi.org/10.1016/j.cpr.2010.03.005>.
- Youssef-Morgan, C. M., van Zyl, L. E., & Ahrens, B. L. (2021). The Work Gratitude Scale: Development and evaluation of a Multidimensional measure. *Frontiers in Psychology*, *12*, 795328. <https://doi.org/10.3389/fpsyg.2021.795328>.

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