Do individuals describe differences in flourishing before and during the beginning of the COVID-19 pandemic? A qualitative study

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Abstract

Introduction: The SARS COVID-19 pandemic and regulations imposed by the government to protect the population could have counterproductive effects on individual's mental well-being and, therefore, hinder individuals to flourish. The concept of human flourishing refers to the highest state of mental well-being by combining hedonic- (emotional well-being) and eudemonic (psychological and social well-being) well-being. Flourishing is associated with a variety of beneficial outcomes like reduced risk of developing psychopathologies, effective learning, positive relationships, or resilience. Still, there is no available literature about how individuals flourish or describe flourishing in terms of behaviours before and during the pandemic, which is the focus of the present study.

Method: The current study employed a qualitative between-subject design using two open-ended questions to compose a comparison about human flourishing from different participants in April 2019 (before the pandemic) and April 2020 (during the pandemic). Data of 124 respondents, all with the German nationality, were analysed using an inductive approach according to content analysis.

Results: The results showed no differences in how individuals described flourishing before and during the beginning of the COVID-19 pandemic. In total, 12 codes were identified, three belonging to both the emotional and social well-being domain and six belonging to the psychological well-being domain. Within the domain of social well-being, an increased feeling of connectedness towards the society was reported by participants from the 2020 sample. Also, individuals from the 2020 sample reported substitute behaviours as a response to the restrictions.

Discussion: The results indicated no changes between the description of flourishing before and during the COVID-19 pandemic. However, further studies should extend this research to identify possible changes in flourishing at a later point of the pandemic. An interesting finding was the feeling of social connectedness towards the society during the pandemic. Research showed a positive relation between social connectedness and flourishing.

Introduction

Maintaining high mental well-being is difficult when experiencing stress in daily life. Stressors like work deadlines, having arguments or being late for an appointment can impact one's well-being (Almeida, 2005; Thoits, 2010). Besides daily stressors, the SARS COVID-19 pandemic currently interferes with individual's life. SARS COVID-19 also known as coronavirus, is an infectious virus resulting in respiratory illness (WHO, 2020a). The fast-spreading virus induced countries all over the world to design and apply regulations to protect citizens. These instructions were given to prevent the virus from spreading too fast and to decrease the risk of citizens getting infected. In Germany, for example, a lockdown was exclaimed resulting in closed facilities for public life and general prohibitions for social gatherings (Zinner et al., 2020). Consequently, the government advised the population to stay isolated and minimise the contact towards others to a minimum (Zinner et al., 2020). Even if the regulations were invented to protect the population, the restrictions arguably had counterproductive effects on an individual's mental health.

There are already studies available regarding the influence on mental health caused by the virus and the regulations set by the government. Studies by Xiang et al. (2020) and Zhang et al. (2020) indicated an increased number of psychopathologies in the Chinese population due to the COVID-19 pandemic. Restrictions like having to go into quarantine due to being in contact with a positive tested person, the lockdown of public life or the fear of losing their job resulted in an increased perception of distress, anxiety, and depression in the Chinese population (Xiang et al, 2020, Zhang et al., 2020). Another study on elderly U.S. citizens showed an increased feeling of depression and anxiety and decreased social well-being due to perceived loneliness resulting from social isolation (Krendl & Perry, 2020). However, the long-term effects of the pandemic are still unknown. As such, it might become a challenge for people to maintain high mental well-being or to even flourish during the pandemic.

Human Flourishing

The concept of flourishing was introduced by Keyes (2002) as part of the two continual model. It refers to the highest state of mental well-being incorporating high hedonic and eudemonic well-being (Keyes, 2002). The domain of hedonic well-being covers emotional well-being. It focuses on subjective well-being like happiness, life satisfaction or positive affect (Langeland, 2014). Eudemonic well-being refers to social and psychological well-being (Keyes, 2002). Keyes (2002) defines social well-being as the appraisal of one's circumstances and being able to function in society. It incorporates measures of social

acceptance, social actualization, social contribution, social coherence, and social integration (Keyes, 2002). Psychological well-being focuses on existential challenges in life (Ryff, 1989). Ryff (1989) identified self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others as dimensions contributing to this well-being domain. The term 'flourisher' can be used to categorise a person scoring high on at least one of three dimensions on hedonic well-being and six of the eleven dimensions of eudemonic well-being (Keyes & Simoes, 2012; Schotanus-Dijkstra et al., 2016).

Flourishing is connected to a variety of beneficial characteristics and outcomes. It is interpreted by the World health organisation "as a state of well-being in which an individual realizes his or her abilities, can cope with daily stresses of life, can work productively and fruitfully, and can contribute to his or her community." (WHO, 2003, p. 7). In other words, a flourisher is described to live in an optimal range of human functioning, which is associated to characteristics of wellness, performance, growth, generativity, positive affect, and resilience (Fredrickson & Losada, 2005). When considering the long-term effects of flourishing, longitudinal studies identified that flourishing is strongly correlated to reduced risks of depressive disorders, anxiety, and mortality (Keyes, 2007; Peter, Roberts & Dengate, 2011; Schotanus-Dijkstra et al., 2016). Furthermore, experimental, cross-sectional, and longitudinal studies identified that flourishers are associated with effective learning and social behaviour (Diener et al., 2010; Huppert, 2009; Lyubomirsky, King & Diener, 2005). Conclusively, several studies determined the beneficial characteristics and outcomes of human flourishing. However, less is known about how individuals define flourishing and how they flourish in terms of behaviours.

Emotional, psychological, and social well-being

As Keyes (2002) described in the two continual model, hedonic and eudemonic well-being set the foundation for being a flourisher. There are studies referring to dimensions and characteristics identified by participants reporting to their perceived happiness, which is part of the emotional well-being domain. A cross-cultural mixed-methods study identified that participants refer to both hedonic and eudemonic aspects when asked about happiness (Delle Fave, Brdar, Freire, Vella-Brodrick & Wissing, 2010). Further, Delle Fave et al. (2010) identified aspects of social and meaningful relationships, health-related behaviour and standard of living as important factors to people perceiving happiness. Another qualitative interview study examined different dimensions referring to happiness. The considered characteristics like positive relationships, achievements, accentuating the positive and a

balanced lifestyle as important manifestations of happiness (Manusov, Carr, Rowane, Beatty & Wissing, 1995). As happiness is considered to be a contributor to emotional well-being, it can be assumed that characteristics and behaviours identified within these studies are relatable to flourishing.

Also, there is some available literature focusing on characteristics and behaviour reported on eudemonic well-being. General research on the topic of high eudemonic well-being indicated better productivity, more prosocial behaviour, and better general psychological functioning (Huppert & So, 2011). Furthermore, a qualitative study by Ruini, Vescovelli, Carpi & Masoni (2017) identified characteristics of interpersonal relationships, goal pursuit and achievements and personal thriving while exploring psychological well-being in school children. Studies focusing on social well-being, identified interaction with social contacts, connectedness and social engagement as important characteristics (Albanesi, Cocgnmae & Zani, 2007; Rollero & De Piccoli, 2010). Like emotional well-being, social and psychological well-being have an immediate influence on flourishing. Therefore, characteristics and behaviours identified within these studies can be linked to flourishing.

Current study

Considering the available literature, the research on flourishing is still in its infancy (Schotanus Dijkstra et al., 2015). It is important to broaden the scientific knowledge to get a better understanding of flourishing and how it manifests in daily life and how it is influenced by the pandemic. Due to the consequences of the pandemic, it might be harder for individuals to flourish or to perceive flourishing. Therefore, the purpose of this study was to investigate the differences in how people describe or perceive flourishing before and during the beginning of the COVID-19 pandemic.

This study aimed to qualitatively examine differences in how flourishing is described before and during the beginning of the COVID-19 pandemic. It is expected that the pandemic followed by the regulations will have an impact on the way people flourish. This impact could manifest within the three domains of well-being as it is expected that the descriptions in the domains will differ before and early during the pandemic. The following research question and sub-research questions were derived:

Main Research Question: Is flourishing described differently before and during the beginning of the COVID-19 pandemic?

Sub-Research Question 1: Is emotional well-being described differently before and during the beginning of the COVID-19 pandemic?

Sub-Research Question 2: Is psychological well-being described differently before and during the beginning of the COVID-19 pandemic?

Sub-Research Question 3: Is social well-being described differently before and during the beginning of the COVID-19 pandemic?

Methods

Study Design

A qualitative between-subject study design was employed using two open-ended questions to gather information about human flourishing. In total, two studies with different participants were conducted, one in April of 2019 and one in April 2020. The purpose of this study was a comparison of human flourishing before and early in the COVID-19 Pandemic. An agreement by the Ethical Committee from the University of Twente was obtained (no. 190320).

Participants

A total of 174 respondents were recruited, of which 123 belonged to the 2019 sample and 51 to the sample of 2020. Respondents who did not answer the questions at all or answered both questions with less than 50 words were excluded. This was because answers with less than 50 words did not contain enough information to be included in the study. Also, the participants needed to be above 18 years and being able to understand and write the German language. In total, 38 respondents from 2019 and twelve respondents from 2020 did not meet these inclusion criteria and were, therefore, excluded from the study. All other participants matched the requirements and were included in the analysis. The final sample consisted of 85 respondents from 2019 and 39 respondents from 2020. In the 2019 sample, the gender distribution was nearly equally distributed with 53 per cent being male and 47 per cent being female. The mean age was 33.51 years ($SD = 15.48$). The 2020 sample had a gender distribution of 62 per cent females and 38 per cent males with a mean age of 30.33 years ($SD = 15.01$). Two chi-square tests were applied to indicate possible differences between gender and age within the two samples. The test scores revealed no significant differences between gender and age in the 2019 ($X^2 (27) = 24.83, p = .58$) and the 2020 ($X^2 (17) = 19.80, p = .29$)

sample.

Materials and Measures

This study was part of a larger study regarding the concept of human flourishing. Hence, not every question from the questionnaire was relevant to answer the research questions of the present study. Only the final two diary questions about the topic of human flourishing were used as part of this study. These questions were constructed by researchers of the University of Twente. Both questions were formulated broadly to minimise the risk of a response bias. The first question was "Please describe one or more situations wherein you flourish: What do you do? What do you feel? What do you think? When you describe such situations, try to think about how you function as a person in relation to others and/or how you function as a person in relation to society?". The second question was "Think about a person who you believe is representative for a person who is flourishing. Please describe this person: What makes you believe that this person is flourishing? How does this person act? What does he/she feel or think? When you described this other person, try to think about how he or she functions as a person, how he or she functions as a person in relation to others and/or how he or she functions as a person in relation to society." For both questions, the participants were asked to write between 150 and 800 words. All participants answered the questions in the German language. Therefore, the diary entries were translated into English by the researcher.

Procedure and Data collection

After gaining the approval of the ethical committee of the University of Twente, the recruitment process by the researchers started. To reach participants, convenience and purpose sampling was employed. Hence, participants were approached in the social environment of the different researchers from 2019 and 2020. During the process of contacting potential respondents, the participants were informed about the purpose and procedure of the study. It was emphasized that all data would be anonymised. After the respondents agreed to participate, they were provided with a link to get access to the survey. Participants could fill in the survey via smartphone, tablets or computers without supervision by the researcher. Participants could choose a time that was convenient for them to participate in the study.

Upon starting the questionnaire, each participant was informed about the purpose of the study and asked to give online informed consent. The informed consent gave information about the participant's rights, aims of the current study, possible benefits of participating, and

confidentiality regarding the gathered data. This included that all data will be anonymised, and unauthorised person will not get access to the datasets. Furthermore, it was highlighted at the beginning of the study that participation is free and withdrawal from the study was possible at any given time. To continue with the questionnaire, the respondents needed to accept the provided informed consent. Before answering the two questions relevant for this study, they were briefly informed about the topic of flourishing. In the end, the participants were informed that they could contact the researchers if any questions arise. It was estimated that it would take approximately 15 to 30 minutes to complete the whole questionnaire.

Data Analysis

The data were analysed by using an inductive approach according to content analysis via Atlas.ti, which is a systematic and replicable technique used to combine many words of text into content categories based on the rule of coding (Stemler, 2000). This approach reduced large volumes of data and enabled, in this case, the identification of how the participants flourished.

The following coding process was conducted for both studies from 2019 and 2020. During the first stage of analysis, all responses to the open-ended questions were read by the researcher to get a grasp of the overall data. To create the first coding scheme, 15 responses from 2019 and 15 responses from 2020 were read again to generate initial codes. Every relevant answer to the research questions was highlighted and called a fragment. A fragment was a large or small chunk of data consisting of descriptions of how this or another individual flourish. Next, the fragments of the 30 responses to both questions were coded to generate initial codes such as active coping, enjoying the situation and social support. Based on this, several sub-codes were created, for example, cognitive strategy, or social connectedness. Some codes with similar meaning and relatable aspects were merged into collective codes. Each fragment was coded by multiple codes, but one code was not assigned multiple times in one present answer. After the first coding trial was completed, the procedure was repeated for all responses. During the process, adjustments in definition and description of certain codes were conducted to include all necessary information mentioned by the respondents. After the first coding process, all codes were allocated into categories based on the three domains of well-being to answer the research questions. After completing the first coding trial, the data was coded a second time with the final coding scheme to incorporate all data (Table 1).

During the first steps of creating the coding scheme, comparisons were made with another researcher from the University of Twente. First initial codes like social support or

enjoying the situation were identified by both researchers. Due to different goal pursues, the collaboration stopped, and both researchers went on with the coding process individually.

Table 1. *Descriptions of each code with related quotes from the 2019 and 2020 sample.*

Category	Code	Definition	Quote 2019	Quote 2020
Emotional well-being	Enjoying the situation	One seeks pleasurable feelings and emotions out of the situation	"*I experience this feeling during my vacation. You are away from everyday stress, switch off and devote yourself to things for which there is otherwise no time*" Participant 3035	"*A moment where I experienced flourishing was during a walk with a friend of mine. Due to the difficult situation, we had to follow the regulations and needed to keep a certain distanced if others tried to walk past us. I enjoyed this moment where we all tried to take care of each other*" Participant 1509
	Satisfied with oneself	One is satisfied with their current situation, which entails physical appearance, social environment, work, past and future.	"*A happy person is in tune with oneself. She is satisfied with her body, her health and her life. She is happy with her friends and satisfied with her current situation*" Participant 3095	"*When you feel satisfied, the body feels lighter and your grin and laugh a lot more. In such situations, there is nothing that bothers, and the world seems fine.*" Participant 1106

Category	Code	Definition	Quote 2019	Quote 2020
	Personal success	One seeks strengths and positive emotions out of personal success which includes belongings	*"Everything works fine in their life. Studies are going well, success at work, precise plans for the future and having a happy relationship."* Participant 3068	*"I understand flourishing as success stories and moments in which I feel well-integrated and accepted in society. (…) For example, having a good work-life balance, getting good grades or having good social relationships."* Participant 1410
Psychological well-being	Active coping	One actively engages in stressful or problematic situations to find a solution	*"I try to be self-critical and get in control if something does not work out. If necessary, I try to take control of the situation and find a satisfying solution for everyone."* Participant 3108	*"I experience flourishing especially in situations in which I actively engage to solve a situation or a problem with a group. These are either professional or private situations."* Participant 1403

Category	Code	Definition	Quote 2019	Quote 2020
	Cognitive strategy	One use specific method like cognitive restructuring, planning, evaluating to exploit opportunities to resolve problems	*"The more structured a situation, either study-, work- or social related and the more it was planned, I felt more comfortable, even if the circumstances were not perfect."* Participant 3030	*"He often says that everything is exhausting at once, but he is very motivated by the moment of success. He also seems to act with a plan"* Participant 1102
	Internal resources	One describes resources like optimism, openness, happiness or acceptance to engage in the situation	*"When I think of flourishing, I am open to new experiences and optimistic about life´s challenge like finding a new job."* Participant 3104	*"Every situation that seems negative, she always looks from the good side, which means that she has a fundamentally positive attitude towards life."* Participants 1106
	Thriving for achievements	One actively engages in the situation to achieve certain goals.	*"A person who is experiencing flourishing becomes more determined and therefore achieve their goals better and faster."* Participant 3055	*"Every day and every week I set myself small goals, whether in my private or work area. (...) While I am doing tasks, I already feel happy because the goal is getting closer."* Participant 1209

Category	Code	Definition	Quote 2019	Quote 2020
	Physical activation	One actively engages in their hobbies to experience positive emotions.	*"A situation where I flourish would be while engaging in my hobbies. I play basketball and in an orchestra. I am happy when I play because I forget all my problems and I am just in my element. (...) It is a great feeling when, for example, if a move works or you play through a piece without errors."* Participant 3152	*"I experience flourishing when I become physically active. (...) During activities like working in nature or physical exercises, I also forget all the worries and tasks I have and concentrate on the situation. It helps me to stay active because playing football is currently not an option."* Participant 1105
	Relaxation exercises	One is using relaxation or mindfulness exercises to calm themselves down.	*"Basically, it is very important for me to be well-rested and to come to a rest from time to time in order to have a happy feeling and be ready to focus on the next task."* Participant 3079	*"I often experience flourishing when I feel free and not pressured. (...) Sometimes it also happens on Saturday, when the morning starts relaxed with yoga and continues with a nice breakfast in the sunshine."* Participant 1309

Category	Code	Definition	Quote 2019	Quote 2020
Social well-being	Social support	One is gaining a high on well-being through social support	*"A happy person has a functioning social environment. With friends and family, she can be as she is, she does not have to fool or change for others and feel secure and accepted. This person is valued at work and in personal life by others."* Participant 3095	*"In this time, many things, mostly small things, makes me happy. These can be a friendly counterpart or praise from others for my work. Also, support from my family and friends, even if we are not meeting regularly are important."* Participant 1508
	Social connectedness	One is having a feeling of connectedness and acceptance from others.	*"In relation to other people, I perceive a feeling of blossoming when I feel accepted. When I am around with my family and closest friends or when I am working with my colleagues. They all now my ticks and do not seem to have a problem with that, in contrary, we can laugh about it together."* Participant 3030	*"Due to the social contact restrictions and the respect for the health of others, I felt like an important and functioning part of a weakened society."* Participant 1102

Category	Code	Definition	Quote 2019	Quote 2020
	Sharing with others	One is gaining pleasurable feelings while sharing something with others or receiving something from them.	*"I experience "flourishing" when I have intensive discussions with my sons about how we feel, what is important and about our achievements. We do not ignore the painful feelings that burden us. We give each other feedback and suggest a solution for each other"* Participant 3109	*"I experience a feeling of flourishing when I was able to help another person in a certain situation. Because this person also progresses with a positive attitude towards life. For me, happiness is only real if you share it."* Participant 1410

Results

In total, twelve codes emerged from the data analysis. Three codes were identified to the emotional and social well-being domain each and six codes were referring to the psychological well-being domain. A frequency table was provided to indicate how often a code was assigned (Table 2). The codes were organised per well-being domain and the code with the highest frequency was mentioned first.

Table 2. *The frequency of codes identified in the 2019 and 2020 sample separated into the three domains of well-being. Percentage of codes within each domain is given based on the total fragments (N) coded within each well-being domain per year.*

Domains	Code	Frequency 2019	%	Frequency 2020	%
Emotional well-being	Total N	163	100%	47	100%
	Enjoying the situation	58	35.5%	20	42.55%
	Satisfied with oneself	54	33.13%	16	34.04%
	Personal success	51	31.29%	11	23.40%
Psychological well-being	Total N	315	100%	114	100%
	Active coping	69	21.90%	24	21.05%
	Cognitive strategy	62	19.68%	20	17.54%
	Coping resources	59	18.73%	19	16.67%
	Thriving for achievements	47	14.92%	19	16.67%
	Physical activation	40	12.70%	17	14.91%
	Relaxation exercises	38	12.06%	15	13.16%

Domains	Code	Frequency 2019	%	Frequency 2020	%
Social well-being	Total N	201	100%	85	100%
	Social support	81	40.30%	34	40.00%
	Social connectedness	75	37.31%	27	31.77%
	Sharing with others	45	22.39%	24	28.23%

Differences in descriptions of emotional well-being

The most prominent topic within emotional well-being mentioned in the diaries in both 2019 and 2020 was *Enjoying the situation*. Enjoying the situation referred to moments where respondents sought pleasurable feelings and emotions from various situations. According to the data from 2019, they perceived flourishing in different situations like spending time with family, having pleasurable moments at work or during vacations. Some described these situations as very short-lasting, but some were referring to positive effects in long-term situations, like vacations. During these moments, they reported relief from daily stress and were able to focus on different aspects of life. For example, participants number 3035 reported "*I experience this feeling during vacation. You are away from everyday stress, switch off and devote yourself to things for which there is otherwise no time.*". Other participants reported a feeling of happiness and life satisfaction when following their hobbies. Respondent 3152 described a feeling of flourishing while playing in an orchestra, "*While playing the violin, I am able to forget all my worries and be in my element.*". Comparing the results of the 2019 sample to the 2020 sample, they described similar moments of flourishing. They were also describing moments and situations, where they perceived flourishing when being with friends and family or perceiving positive moments from the general situation. However, only eight of the 39 participants actually referred to the COVID-19 pandemic. For example, respondent 1509 described a moment with a friend during the pandemic, "*A moment where I experienced flourishing was during a walk with a friend of mine. Due to the difficult situation, we had to follow the regulations and needed to keep a certain distanced if*

others tried to walk past us. I enjoyed this moment where we all tried to take care of each other". Seeing the mutual respect within these difficult situations gave the person a feeling of enjoyment. Besides referring to the current pandemic, 19 of the participants were referring to situations that happened before the COVID-19 pandemic. For example, one reported a feeling of flourishing during a basketball game before the study was conducted. "*I flourished during a basketball game. (...) This game was the best of my life and it would not have been possible without the people around me. I flew over the court and no one could stop me. (...) I will never forget this game where I just functioned.*" [Participant 1202].

Following enjoying the situation, *being satisfied with oneself* was the next code that was mentioned by both samples. This code referred to a feeling of satisfaction in their life. These were mainly linked to physical appearance, pleasurable situations at work or social environment, like being satisfied with one´s job or with the current relationship. Participant 3095, for example, described how he/she would describe someone's who is satisfied with oneself, *"A happy person is in tune with oneself. She is satisfied with her body, her health and her life. She is happy with her friends and satisfied with her current situation."*. Besides referring to present factors, fragments related to the past were also mentioned by some participants. They described a feeling of harmony with the past and the future, *"A satisfied person is forgiving themselves and is in tune with their past and is calm about their future."* [Participant 3095]. Respondents from 2020 responded to similar fragments not related to the COVID-19 pandemic. Some participants explained that the feeling of satisfaction reduced the focus on bothering situations. Participant 1106 reported, "*When you feel satisfied, the body feels lighter and your grin and laugh a lot more. In such situations there is nothing that bothers, and the world seems fine.*".

The final code identified in the category of emotional well-being is *personal success*. According to the respondents, they sought positive affect and happiness out of personal accomplishments. Their description of success included social or work situations but also physical belongings like a house. Respondent 3068 described two persons who are in a relationship as flourishing *"Everything works fine in their life. Studies are going well, success at work, precise plans for the future and having a happy relationship."*. Personal success was similarly described in the 2020 sample. Participant 1410 mentioned "*I understand flourishing as success stories and moments in which I feel well-integrated and accepted in society. (...) For example, having a*

good work-life balance, getting good grades or having good social relationships.".

Concluding the emotional well-being domain, respondents did not perceive large differences in the way they described or perceived situations before and during the pandemic. Only a few participants from the early pandemic sample did refer to the actual pandemic, while most of the 2020 participants referred to past experiences, so it was difficult to generate a comparison between the different samples.

Identification of psychological well-being

The code respondents most referred to in the psychological well-being domain was *active coping*. Active coping referred to situations where one actively engaged into problematic situations in order to resolve those. Considering the data from 2019, they especially perceived flourishing when they were aware of their problems and engaged in these situations to gain control and resolve them. Participant 3033 described "*I try to be self-critical and get in control if something does not work out. If necessary, I try to take control of the situation and find a satisfying solution for everyone.".* Next to coping with these situations, respondents described accepting the situations in which a change cannot be. It seemed that they did not invest too much effort in trying to create a change if they were aware that the outcome will remain the same. For example, participant 3108 explained that "*The person tries to change where she can or leaves it and turns to other things. She does not get upset if she cannot change something and tries to focus on other problems.".* When looking at the responses from the 2020 sample, no specific differences between the two samples were identified. They described similar behaviours when engaging or resolving certain situations. Respondent 1403 described flourishing as *"I experience flourishing especially in situations in which I actively engage to solve a situation or a problem with a group. These are either professional or private situations."* Respondents did not specifically mention situations related to the COVID-19 pandemic.

The next aspect of flourishing described by the respondents was *cognitive strategy*. This code referred to strategies or methods like cognitive restructuring, planning or evaluating to exploit new opportunities to resolve problems. These strategies were used in a variety of situations like being at university, work or in a social relationship. For example, participant 3030 used strategies in a variety of situation "*The more structured a situation, either study-, work- or social related and*

the more it was planned, I felt more comfortable, even if the circumstances were not perfect.". The same was described by the 2020 sample. The early pandemic sample was also using different strategies to cope with stressors. However, they did not relate them to any specific circumstances *"He often says that everything is exhausting at once, but he is very motivated by the moment of success. He also seems to act with a plan"* [Participant 1102].

The third code identified in psychological well-being is *internal resources*. It referred to resources like optimism, openness or acceptance that helped to engage in the situation. These were often related to situations at work, university or in society. Participant 3104 identified certain resources by him- or herself *"When I think of flourishing, I am open to new experiences and optimistic about life´s challenge like finding a new job.".* Besides being able to engage in these situations, they also described that their positive attitude reflected on others. *"There is one person who always has a positive attitude. (...) She is taking care of herself and do not worry about how things develop. She is always optimistic and pulls others along too."* [Participant 3039]. When comparing to the early pandemic sample, no specific differences within the internal resources were found. In 2020, they also described these resources more broadly and tried to sough it from a more positive perspective instead of a negative one. The only difference noticed was that respondents from the 2020 sample referred more to negative events. This could be related to the COVID-19 pandemic but it was not directly stated by the participants. *"Every situation that seems negative, she always looks from the good side, which means that she has a fundamentally positive attitude towards life."* [Participant 1106].

Another code regarding psychological well-being was *thriving for achievements*. While thriving for achievements, one actively engaged in situations to achieve certain goals. These goals were related to a variety of domains, like work, health, or society. Also, it was described that flourishing individuals seemed to be more determined when thriving for their goals. For example, Respondent 3055 described *"A person who is experiencing flourishing becomes more determined and therefore achieve their goals better and faster.".* When achieving their goals, respondents described positive emotions like happiness and satisfaction as a result of gaining their success. In comparison, thriving for achievements was perceived similarly in the 2020 sample. There, individuals set themselves certain goals to achieve and reported increased motivation when they were closer to achieving their

goals. *"Every day and every week I set myself small goals, whether in my private or work area. (...) While I am doing tasks, I already feel happy because the goal is getting closer."* [Participant 1209].

Physical activation is the next code participants were referring to. This code emphasised that one actively engaged in their hobbies or became physically active to experience positive emotions like happiness. Besides experiencing positive emotions, they also described that it helped to distract themselves from their problems for the time they were active. For example, Participant 3152 described how physical activation helped him or her to clear his or her mind *"A situation where I flourish would be while engaging in my hobbies. I play basketball and in an orchestra. I am happy when I play because I forget all my problems and I am just in my element. (...) It is a great feeling when, for example, if a move works or you play through a piece without errors."* The early pandemic sample described similar beneficial moments from physical activation. However, due to the restrictions enforced by the government, they were not allowed to conduct team sports. One respondent reported that instead of focusing on team sports, he or she did activities on his or her own, which had beneficial outcomes like clearing one's mind. *"I experience flourishing when I become physically active. (...) During activities like working in nature or physical exercises, I also forget all the worries and tasks I have and concentrate on the situation. It helps me to stay active because playing football is currently not an option."* [Participant 1105].

The final code for psychological well-being was *relaxation exercises*. These exercises were related to mindfulness or relaxation tasks that helped to calm the person down by themselves. These were described by either spending time alone, doing yoga, reading a book, or engaging in meditation. The 2019 sample reported that they felt more rested, happy and balanced to cope with stressors when they engaged in these activities. Also, it helped to clear their mind and to find a possible solution, if they were perceiving barriers. *"Basically, it is very important for me to be well-rested and to come to a rest from time to time in order to have a happy feeling and be ready to focus on the next task."* [Participant 3079]. Relaxation was perceived similarly by the early pandemic sample. They experience flourishing when they were able to take time for themselves and focusing on exercises that helped them to calm down. Respondent 1309 described an example where he or she calmed down through relaxation exercises. *"I often experience flourishing when I feel free and not*

pressured. (…) Sometimes it also happens on Saturday, when the morning starts relaxed with yoga and continues with a nice breakfast in the sunshine." This code did not seem to be affected by the COVID-19 pandemic.

Summarising the psychological well-being domain, it can be concluded that the early pandemic sample perceived certain boundaries through the COVID-19 pandemic regarding being physically active. Respondents described substitute behaviours to further be able to benefit from the activity. Also, there seemed to be no differences regarding coping, thriving for achievement or relaxation exercises between the samples.

Identification of social well-being

The most frequent code identified in the social well-being domain was *social support*. In general, social support was characterised by both samples as perceiving a high on well-being through social support. It was mainly characterised by the 2019 sample as unconditional support and a resource to rely on. They did not perceive pressure to change and felt accepted by others. The social environment caused a feeling of security and happiness within the individuals. For example, respondent 3095 described a person who perceives social support through others *"A happy person has a functioning social environment. With friends and family, she can be as she is, she does not have to fool or change for others and feel secure and accepted. This person is valued at work and in personal life by others.".* Next to receiving support from others, giving support was also an essential part mentioned by the respondents. Participant 3088 was taking care of her mother *"I invest a lot of time for my mother who is in need of care. Other people support me and tell me that it is very nice that I take care of her. They give me the feeling of doing the right thing. (…) It is my mother, she supported me all the time and now I can give something back.".* Facing the early pandemic sample, they reported similar effects from social support compared to the 2019 sample. But due to the government restrictions, they described that social support was to a certain extent limited. It seemed that individuals sough support from smaller things as well. Instead of focusing on the whole environment, they experienced support and happiness from small encounters. Furthermore, social support created a feeling of happiness within individuals. Respondent 1508 describes *"In this time, many things, mostly small things, makes me happy. These can be a friendly counterpart or praise from others for my work. Also, support from my family*

and friends, even if we are not meeting regularly are important.".

    Social connectedness was the next code frequently identified in both samples. It referred to a feeling of connectedness and acceptance towards others. This feeling of connectedness was related to family, friends, teammates, or colleagues. In 2019, the respondents described a feeling of flourishing when they perceived a feeling of acceptance. Also, there seemed to be no problems that could have disturbed this feeling of connectedness. For example, participant 3030 described *"In relation to other people, I perceive a feeling of blossoming when I feel accepted. When I am around with my family and closest friends or when I am working with my colleagues. They all now my ticks and do not seem to have a problem with that, in contrary, we can laugh about it together.".* This code was similarly perceived by the early pandemic sample. They also described a feeling of connectedness towards their relatives and the social environment. One major difference was the feeling of connectedness during the pandemic. The mutual respect and taking care of each other as part of the restrictions created a feeling of belonging and connectedness towards the society even if they were not able to meet others. Respondent 1102 described *"Due to the social contact restrictions and the respect for the health of others, I felt like an important and functioning part of a weakened society.".*

    The final code mentioned is *sharing with others*. It was described as gaining pleasurable feelings while sharing with others or receiving something from others. The part of sharing included both physical presents and sharing something on a psychological basis like positive feedback or compliments. Respondent 3109 described that being able to share and receive feedback from their sons helped him/her to increase their bonding but also created a feeling of flourishing. *"I experience "flourishing" when I have intensive discussions with my sons about how we feel, what is important and about our achievements. We do not ignore the painful feelings that burden us. We give each other feedback and suggest a solution for each other."* Also being able to share their knowledge was frequently mentioned by the 2019 sample. Especially in work-related situations, pleasurable feelings like happiness were created by sharing experiences. *"When I can give some hinds for the trainees in our company that helps them in their future career provides a lot of happiness and joy within me. Especially when they would not learn it as part of their education."* [Participant 1327]. Similar findings were identified in the early pandemic sample. There, respondents also described that sharing is one major aspect of flourishing. This was

especially the case when people required something. Respondents did not directly relate this to the COVID-19 pandemic. Beside the gesture of sharing, happiness was also an important aspect frequently mentioned as part of the sharing or receiving process. Respondent 1410 explained "*I experience a feeling of flourishing, when I was able to help another person in a certain situation. Because this person also progresses with a positive attitude towards life. For me, happiness is only real if you share it.*".

Based on the information in the social well-being domain, it can be concluded that respondents early in the pandemic were restricted by the COVID-19 pandemic in experiencing social situations. The consequences of the pandemic affected the way people perceived social support or connectedness. Besides the similarities to the 2019 sample, the 2020 sample were further able to perceive a feeling of support and connectedness towards the society which resulted through the early pandemic and was not described by the 2019 sample. Also, they described feelings of happiness as perceived dimensions, while experiencing these situations.

Discussion

The present study aimed to investigate the differences in the description of flourishing before and during the beginning of the COVID-19 pandemic and how these differences manifested within the three domains of well-being. Based on the impact and restrictions imposed by the government due to the pandemic, it was proposed that there will be differences in how individuals flourish. The main results showed no differences in the description of flourishing before and early in the COVID-19 pandemic. However, some differences were found within the description of social connectedness and in the time perspective, people were referring to when describing flourishing.

In general, no major differences in the description of flourishing were found before and during the beginning of the COVID-19 pandemic. It was expected that the pandemic will have an impact on the individual's well-being and, therefore, resulted in a change of the description of flourishing. To the researcher's knowledge, this study was the first one qualitatively assessing descriptions of flourishing at different points in time and made a comparison with other qualitative studies on the topic of flourishing difficult. Keyes (2007) quantitatively identified that over a longer period in time, the number of flourishers remained constant, while the state of flourishing

may vary within the population over time. Considering that the number of flourishers remained constant, it could be assumed that the descriptions of flourishing stayed constant over time as well, which could explain the current study´s findings. This would be a suitable option for future studies as the description of flourishing was not investigated qualitatively at different time points.

Another possible explanation for not finding any differences in flourishing could be linked to the relationship between life events and flourishing. Schotanus-Dijkstra et al. (2015) identified no association between negative life-events and flourishing, which is in opposition to the assumption made in the current study, as it was assumed that the corona pandemic as possible negative life event could have an impact on individual´s well-being. The finding that negative life-events did not have an impact on flourishing could be an explanation for not finding any differences in the description of flourishing before and at the beginning of the pandemic in the current study.

Also, when considering the development of the COVID-19 pandemic, it can be assumed that there might be differences in flourishing at a later time point during the pandemic. At the beginning of the pandemic, it was not possible to estimate the development and longevity and how it would have an impact on mental health. However, studies already showed an increased perception of distress and psychopathology caused by the regulations after a few months in the Chinese population (Xiang et al, 2020, Zhang et al., 2020). Therefore, it would be a topic of interest for future research to investigate flourishing at a different time point during the pandemic.

One difference found between the two samples was the feeling of connectedness. As part of the restrictions created by the government, physical or social distancing caused changes to people's usual social lives. So, it was assumed that these changes would have a negative influence on individual's well-being. However, instead of feeling less socially connected, it was reported by participants referring to the pandemic that a connectedness towards the society developed because everyone was affected by the pandemic and the regulations of the government. It was mentioned that the feeling of connectedness towards the society combined with the limited social contacts helped to cope with the negative effects caused by the pandemic. A study by Nitschke et al., (2020) identified similar findings on the influence of social connectedness during the early COVID-19 pandemic in the

Austrian population. They reported that a feeling of social connectedness is associated with less COVID-19-specific worries caused by the virus or the restrictions. Also, a feeling of connectedness promoted resilience and resulted in a decrease of distress (Nitschke et al., 2020). Linking social connectedness to the topic of flourishing, a study by Capan (2016) identified a connection between these two constructs. The study emphasised that high levels of social connectedness are associated with an increased social and psychological well-being and, therefore, have an influence on overall flourishing (Capan, 2016). As such, the increased feeling of social connectedness can have an impact on flourishing as reported in this study. However, further research could support these findings and even analyse the feeling of social connectedness and flourishing at different time points during the pandemic.

Interestingly, 19 respondents from 2020 were referring to past experiences instead of present ones when answering the questions about flourishing. The difference cannot be explained by utilising the framework by Keyes or within other applications of this framework in other scientific research. With the help of literature research, one possible explanation might be possible. A study by Sailer et al. (2014) identified a connection between recalling a time perspective and well-being. Their research on psychological well-being indicated that individuals perceiving higher well-being recall more positive events from the past (Sailer et al, 2014). Considering the model by Keyes (2002), flourishers are considered to have high well-being. When connecting the study by Sailer et al. (2014) with the concept of flourishing, a possible explanation for the findings could be that individual referred to past experiences due to their high well-being. However, the individual's well-being was not assessed as part of this study, so the results are inconclusive but could be incorporated for future follow up studies.

Another possible explanation could be related to the questions itself. The questions did not imply whether participants should refer to present or past situations. Therefore, instructions of the questions could have caused the answers referring to the past. It is recommended that future measurements of this human flourishing study incorporate an instruction to refer to either to present or past situations.

Strengths and Limitations

A strength of the present study included the formulation and implementation of the open-ended questions. Both questions were formulated broadly to get a deeper

insight into the topic of flourishing. Therefore, the formulation did not give any cues to respondents of what could be expected from the researchers. The participants were able to focus on topics that were important to them without being influenced. The broadly asked questions gave a variety of insights about how people describe flourishing.

Still, when interpreting the findings of the study, certain limitations should be taken into consideration. First, the coding process was only partly conducted by two researchers, as only the first initial codes were compared with another researcher from the University of Twente. Then, the allocation of further sub-codes and the generation of the final coding scheme were conducted by the researcher himself without further collaboration. Hence, the inter-rater reliability of the final coding scheme was not established. Also, the between-group differences were not tested after the final coding process. Therefore, differences between the two groups were not scientifically grounded. Another point regarding the coding scheme is the allocation of the codes towards the domains of well-being. Considering the answers of the individuals, it seemed that the domains of well-being were intertwined and could have been assigned to other domains as well. For example, could the codes assigned to the social well-being domain, also be assigned to the psychological well-being domain as positive relation was also represented in the model by Ryff (1989). Therefore, if future studies would conduct qualitative research on this topic of flourishing, different results could occur.

Another limitation concerns the actual sample. The samples were drawn independently by different researchers in different years, which makes a within-subject comparison not possible as the same subjects were not followed over time. Also, the number of participants differed between 2019 and 2020. The 2019 sample size was more than twice as large compared to the 2020 one. Thus, conducting the same study with a larger 2020 sample size could have produced additional or different information, possibly, resulting in different results.

The final limitation is the time point at which the data of the 2020 study were collected. The official lockdown was called out in Germany on March 22nd. It could be assumed that the respondents were not affected by the regulations too much in April or did not stick to them before participating, as the lockdown has just begun. Having to cope with the restrictions like social isolation for a longer time could result in differences in flourishing behaviour and, therefore, different answers to the

questions of the current study could have occurred. This could have affected the results, indicating that the study only gives a first impression on how people flourish during the pandemic and that different results could be assumed at a later point in time.

Suggestions for future research

In line with the reported limitations, future research should secure inter-rater reliability and test the between-group differences after conducting the coding process. Also, using a larger sample size could help to identify whether there are differences in the descriptions of flourishing before and early during the pandemic. Moreover, it could be interesting to approach participants throughout the COVID-19 pandemic to get a broader overview whether the description of flourishing changes during the pandemic. Both a within-subject and between-subject design would be a suitable option. Another suggestion would be to briefly inform the participants to at least write around 100 words per question. The initial request was to answer within 150-800 words per question, which was described as demotivating by some participants. Also, detailed instructions would be helpful to the respondents, as it was not described in the tasks whether the description of flourishing should focus on the past or the present.

Practical implications

The current study contributes to the growing body of research in the field of flourishing being one of the first studies trying to identify differences in the description of flourishing before and during the COVID-19 pandemic. As the pandemic is causing further problems within the population, it is important to focus on the mental health of the individuals. The results of the present study did not show any differences between the descriptions of flourishing before and during the beginning of the pandemic. However, as the pandemic continues, it is suggested to further conduct research to analyse the impact of the pandemic at a later point in time. Also, there were differences in the way people felt connected with society. It further supported the importance of connectedness during the pandemic. Therefore, governments could use this information and try to identify applications that connects socially isolated individuals back to the community, while adhering to the restrictions.

Conclusion

Concluding, this study identified no differences in the description of flourishing before and during the beginning of the pandemic. As the pandemic proceeded over a longer period, it is recommended to further investigate the impact of the pandemic on mental well-being. Interestingly, an increased feeling of social connectedness towards the society was identified during the pandemic. This information can be used as a suggestion for further studies. Also, it might be a topic of interest to further monitor the development of mental health during the pandemic. It could be used to create suitable interventions to maintain or heighten individual's well-being.

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