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## Spirituality as a Buffer Between Negative Effects of the COVID-19 Pandemic and Life as Well as Job Satisfaction?\*\*

### Abstract

The COVID-19 pandemic has various consequences on employees that negatively affect their work and personal lives. According to previous research, spirituality helps one to cope with negative life events relating to uncertainty and *Unverfügbarkeit*. We investigate whether spirituality at work moderates the relationship between the pandemic's negative consequences and both job and life satisfaction. In a large-scale two-wave panel study with 1,468 participants (December to November 2019 and June to July 2020) in Germany, participants were surveyed for the severity of individual negative consequences of the pandemic, their job and life satisfaction, and their spirituality at work. The results show that job and life satisfaction are negatively related to the pandemic's negative consequences. Spirituality at work significantly moderates the relationship between negative consequences and life satisfaction as well as job satisfaction. However, the moderation effect on the job satisfaction model is only weakly significant. Thus, within the (work) life-changing circumstances of the pandemic, high spirituality at work can help one to cope with the negative consequences, buffering their impacts on job and life satisfaction. Employers can help to maintain or strengthen their employees' well-being by facilitating and supporting spirituality at work via HRM.

Keywords: Keywords: spirituality at work, life satisfaction, job satisfaction, COVID-19, coronavirus  
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## Introduction

The COVID-19 pandemic has profoundly changed many people's lives. Many have experienced existential health, life, or economic problems (Counted et al., 2020): some persons have been ill with and/or endured long-term effects of COVID-19, may have lost relatives to the pandemic, have been afraid of becoming infected or infecting others, or have been isolated from their closest social contacts. Others have experienced negative economic effects, losing their jobs, customers, or large parts of their income during repeated lockdowns. Parents have been caught between their work and home-schooling/home-care for children. Overall, there was and is a broad range of potentially negative and threatening effects and high uncertainty owing to the pandemic. These effects of the pandemic may negatively affect subjective well-being, specifically employee life and job satisfaction.

How people cope with this situation and which factors help them to cope well are key questions for society (Arslan & Yıldırım, 2021; Counted et al., 2020; Edara et al., 2021). For instance, public health, especially mental health, depends on some of these long-term negative effects of the pandemic, and health institutions need to prepare accordingly. But the pandemic's effects impact not only life and society in general, but also the work domain. They are felt and experienced by individuals in their employee roles. Thus, we concentrate on life and job satisfaction as indicators of subjective well-being in life in general and the specific domain of work.

Spirituality is often interpreted as a resource that helps one to cope with changing or negative situations (Alewell & Moll, 2021a; Arslan & Yıldırım, 2021; Carranza Esteban et al., 2021). Huppenbauer (Huppenbauer, 2008; Huppenbauer & Grand, 2007) argued, from a theological perspective, that faith and religiousness may increase a person's capability to cope with *Unverfügbarkeit*. Psychologists have also stressed the high uncertainty during the pandemic from a psychological perspective (Edara et al., 2021). Further, from the HRM perspective, more or less all jobs and tasks are characterized by a higher level of *Unverfügbarkeit* than before the pandemic because the level of uncertainty, complexity, and volatility and the non-availability of the levels of security we were used to have increased for many tasks and decisions in both firms and families. With increased remote work from home, work and life are coming together more closely, and many aspects will affect job and life satisfaction simultaneously. Spirituality at work may then also influence job and life satisfaction simultaneously.

We ask whether individual spirituality at work buffers negative personal experiences during the pandemic in their effect on life and job satisfaction. In other words, we ask whether spirituality is a resource that helps one to cope with the pandemic – at work and generally in life. We expect that spirituality at work moderates the link between the pandemic's negative consequences on the one hand and job and life satisfaction on the other hand. We contribute by shedding some more light on the effect of individual spirituality at work, especially its buffering effect on the

relationship between stressful experiences' effects and subjective well-being – more specifically, on job and life satisfaction.

We will proceed as follows. Next, we present our theory and hypotheses, followed by information about the data, measurement, and method. We then present the results. Afterwards, we discuss the results and limitations and derive further research needs before we draw a conclusion.

## Theory and Hypotheses

### Effects of the Pandemic

The COVID-19 pandemic has had many serious consequences on the labour markets, the economy, and the private and personal situation of employees and their families. In Germany, as of July 2021, more than 3.7 million people had fallen ill with COVID-19, and more than 91,000 had died with or because of it (Robert-Koch-Institut, 2021). In response to the pandemic, Germany's state and federal governments implemented various measures such as reducing physical and social contact, physical distancing, wearing mouth-and-nose-masks, quarantine, closing schools and daycares, and calling those whose jobs could be transferred to home offices to work from home (Bauer & Weber, 2021; Huebener et al., 2020). While these measures are potentially helpful in reducing infections, they increase "feelings of uncertainty and loneliness" (Zacher & Rudolph, 2020, p. 52), which in turn may lower subjective well-being (yet see Prati and Mancini (2021)). When examining changes in German participants' self-reported subjective well-being, Zacher and Rudolph (2021) found decreases in life satisfaction and positive affect between March and May 2020, the early stages of the COVID-19 pandemic in Germany, when strong lockdowns were in place. In their study of Turkish young adults, Arslan and Yıldırım (2021) found that stress due to the Corona situation was negatively related to life satisfaction. Similarly, Gröndal et al. (2021) found that the pandemic's negative consequences were associated with lower life satisfaction in a sample of Swedish participants. Best et al. (2021) found that even short-term public health measures (i.e. social distancing) may lead to psychological distress. However, they found that in their Canadian sample (with data collection in March and April 2020), on average, life satisfaction was high and buffered negative psychological consequences.

The pandemic is affecting not only life in general (private and family life) but also employers' and employees' working lives. Employees must cope with many changes at work, for instance, remote work, greater isolation, less face-to-face contact, risks of infection from colleagues, and illness and death among coworkers. A large number of organizations had to shut down their operations during lockdowns. About one-third of the establishments in Germany sent employees into *Kurzarbeit* (short-time work), and in 12 % of the establishments, employees were laid off, with large variations between branches (Bellmann et al., 2020). In both cases, employees have

lost income and may have faced financial problems, for instance with paying their rent. About one-third of employees have worked from home or have practised mobile work (Grunau et al., 2020). While home office and mobile work have many positive effects, for instance less time and lower cost of commuting and more flexible time schedules in the home office, several effects may negatively impact employees (Grunau et al., 2019). For example, employees have experienced isolation from colleagues and supervisors, have had no access to an ergonomically designed workplace as they are working in their bedrooms or at the kitchen table, and have had to divide their time, attention, and concentration between their work and their kids in home-schooling/home-care (Grunau et al., 2019). All these aspects may negatively impact employees' subjective well-being. For employers, it may be highly relevant to know which employee groups will suffer more (less) during the crisis and which resources help employees to cope with such effects of the crisis. They may want to think about health management activities and offer programs to help their employees to cope with the situation and maintain good physical and mental health, well-being and high motivation.

However, these changes in working life happened in a context of increased uncertainty and uncontrollability of life in general and with regard to existential dimensions of life (Arslan & Yıldırım, 2021; Counted et al., 2020; Edara et al., 2021; Huppenbauer, 2008). Many people have been ill or afraid of falling ill, people have died, have experienced illness and death of relatives, friends, and colleagues, or have been affected negatively by social isolation or the changes in the social circumstances of life. Close personal relationships suddenly changed into contacts that could be dangerous and lead to infection. Breathing, which keeps us alive, could suddenly also lead to death. People could never know who of those they meet may bring the virus into their home just by breathing in and out. Close contact with others posed the risk of infection and illness. Planning the next trip or a firm's activities during the next months was nearly impossible since many elements of the situation were dependent on political decisions on how to react to the changing numbers of infected, ill, hospitalized, or dead, which were hard to predict. State authorities' positions and decisions constantly changed and resulted in the suspension of rights and freedoms that people are used to, for example, going where one wants to go at any time or meeting in their home with anyone they wish to meet. Working parents could no longer reliably plan their child-care. Employees were suddenly ordered to work remotely and in the home office and were not allowed to work at the business premises. Business organizations faced lockdown decisions, had to close down and send employees into short-time work or lay them off. However, people like to be in control of their lives and often strive for security, safety, and autonomous decisions – needs that were severely deprived in the COVID-19 situation (Zacher & Rudolph, 2021).

## Spirituality as a Resource and Buffer

With reference to such situations of high uncertainty, complexity and non-manageability, Huppenbauer (Huppenbauer, 2008, p. 35) applies the German term *Unverfügbarkeit*. This term is difficult to translate – we are not aware of an English term denoting the exact meaning. It describes a very basic and strong form of general non-availability of control over your life, something between elusiveness, intractability, non-availability and non-accessibility. This term hints at the fragility of life and happiness and that we cannot thoroughly control central elements of our life. We use *Unverfügbarkeit* for aspects not at one's disposal or under one's control in a transcendent, philosophical way. It is not the same as non-availability because non-availability includes aspects that are available in general but not right now, for example, due to temporary delivery shortages or limited supplies. These latter aspects are not included in the term *Unverfügbarkeit*.

Huppenbauer (2008) argued, with reference to the sociology of religion and religious spirituality, that religions (and other spiritual traditions) offer a culture of and competencies for dealing with *Unverfügbarkeit* (Huppenbauer, 2008, p. 35). This is because religions and, more generally, spiritual traditions and related spiritual capabilities offer specific cognitive orientation and emotions for individuals to code *Unverfügbares* and produce some meaning and some kind of order in life (Huppenbauer, 2008, p. 34) beyond material aspects of life. Similarly, psychological research argues that (religious) spirituality can result in spiritual coping strategies, and authors expect that spiritual coping improves well-being or buffers the crisis' negative effects (Arslan & Yıldırım, 2021; Carranza Esteban et al., 2021; Counted et al., 2020; Edara et al., 2021). The psychology of religion analyzes several channels by which spiritual coping may improve well-being in a crisis or normal life situation (Grom, 2007). For example, coping with life (crises) and well-being can be improved via the comforting vision of higher meaning in one's own life, the orientation on religious values and indicators of personal worth that are beyond secular success criteria, the feeling to be held safe and secure by some higher power, or the belief that one is accompanied by a higher power (for example God, Allah). Alternatively, spiritual persons may have an attitude of humility that life and death are not in our hands anyway. Consequently, they may accept life changes more easily than non-spiritual persons.

One of the key variables in psychological research concerning coping with the pandemic's consequences is psychological resilience, which can be defined as a person's "ability to adapt in the face of tragedy, trauma, adversity, hardship, and ongoing significant life stressors." (Blanc et al., 2021, p. 31). Some authors have argued that spirituality enhances a person's resilience and, thus, well-being during the pandemic, which was supported by their findings (Killgore et al., 2020; Roberto et al., 2020).

Thus, different disciplines, such as theology and the psychology of religion, assume and analyze a (partially) positive relationship between spirituality and well-being. Spiritual persons may have specific capabilities to deal with *Unverfügbarkeit*, with situations of high uncertainty, complexity, and non-manageability, more so than nonspiritual persons (Huppenbauer, 2008, p. 34). We expect that spirituality buffers the effect of negative and stressful life events during the pandemic on job and life satisfaction, acting as a moderator between negative individual consequences of the crisis and both life and job satisfaction.

## Spirituality

Spirituality is an individual attitude (or stance), an individual search, and/or behaviour that is related to three aspects of life (Alewell et al., 2022; McGhee & Grant, 2017; Mitroff & Denton, 1999; Sheep, 2006):

- 1) transcendence and being connected to something greater than oneself, for instance, a higher power (God, Allah, Hashem, Buddha, Divinity) or a larger whole, for instance, creation, the universe, the *Weltseele* (anima mundi, world soul),
- 2) relatedness and connectedness to others, and
- 3) meaning in life, including a person's development from birth to death (McGhee & Grant, 2017, p.162).

In our definition, spirituality is a generic term. It includes religious and nonreligious spirituality and all mixed forms in between. If the element of transcendence is based on a specific religion, we call this type of spirituality religiosity or religiousness. Thus, religiousness is that part of spirituality that is based on religion – with religion as a collective and often heavily institutionalized construct (e.g., Alewell & Moll, 2021a; Krishnakumar & Neck, 2002; and see Miller & Ewest, 2015, with an analogous definition of faith as a generic term that includes religious and nonreligious spirituality). This implies that research on religiousness is research on a specific form of spirituality, too – and that reviewing the links found in research between spirituality and job or life satisfaction has to include the links found between religiousness (as a subdomain of general spirituality) and satisfaction variables.

## Job Satisfaction, Life Satisfaction and Their Relation With Spirituality

Job satisfaction is a key outcome variable in HRM and organizational behavioural research (King & Williamson, 2005; Spector, 1997) since it links outcomes that are relevant to employers (e.g. performance, motivation, and turnover intention) and outcomes that are relevant to employees (e.g. well-being and health) (Alewell et al., 2022). Thus, job satisfaction is an important indicator of the consequences of the pandemic on individual well-being and work life that includes and expresses

effects for employers and employees. The pandemic's effects on job satisfaction have been analyzed far less than its effects on general life satisfaction (yet see Möhring et al.'s (2021) analysis of family life satisfaction and job satisfaction). Hence, it is highly relevant to study which aspects help employees to cope with the pandemic's negative consequences and their impact on job satisfaction.

Researchers have intensely studied the link between spirituality and/or religiousness (at work) and job satisfaction. The results often show a positive link between spirituality and/or religiousness variables and job satisfaction, but with many differences in details and in the operationalization of the spirituality variables (Alewell et al., 2022; Chusmir & Koberg, 1988; King & Williamson, 2005). Alewell et al. (2022), as well as Alewell and Moll (2021b), showed that spirituality does not impact job satisfaction as a trait that, if present, increases life satisfaction and job satisfaction more or less automatically. Instead, their results suggest that spirituality functions more as a need, with the individual deciding where to satisfy this need. Therefore, even employees with a given level of spirituality may differ in whether they bring spirituality to work – or leave it at the front door of business premises and satisfy their spiritual needs in other, non-work contexts. In this perspective, spirituality affects job satisfaction via a path that runs from self-perceived spirituality via the desire to express spirituality at work and its de facto expression at work to job satisfaction. Thus, we expect the link between spirituality and job satisfaction to run via the manifest forms of spirituality at work and include a variable on spirituality that is actually expressed *at work*.

We primarily focus on the pandemic's negative consequences in the work domain, especially concerning the changes in working conditions it has caused. For instance, there is more isolation owing to working in home offices, less personal and more digital social contact at work, double burdens for parents owing to parallel home-schooling or child-care and a home office, and the fear of job loss or short-time work with accompanying financial losses. However, owing to the measures instigated by the federal government and employers to contain the spread of COVID-19, such as the closure of daycares and schools, as well as working from home (Hueben-er et al., 2020), the pandemic's work and non-work (e.g. family) consequences have become mixed (Wang et al., 2021). Owing to pandemic restrictions on employees' private and social lives, work may have gained even more importance for some employees. Overall, since the pandemic and its consequences have obliterated job-life boundaries, we expect that the pandemic's negative consequences have various mingled effects on job and life satisfaction, with spirituality at work buffering negative consequences on both job and life satisfaction. Consequently, we analyze both links – between the pandemic's negative consequences and job satisfaction as well as life satisfaction – with spirituality at work as a moderator of both links.

We therefore hypothesize:

*H1a (job satisfaction): Employees who have experienced negative impacts of the pandemic have lower job satisfaction than those who have experienced no such or less severe negative impacts.*

*H1b (spirituality at work as moderator of job satisfaction): Spirituality at work moderates the impact of the pandemic's negative consequences on job satisfaction. Specifically, for employees with higher spirituality at work, the pandemic's negative effect on job satisfaction is smaller than for those with lower spirituality at work.*

*H2a (life satisfaction): Employees who have experienced negative impacts of the pandemic have lower life satisfaction than those who have experienced no such or less severe negative impacts.*

*H2b (spirituality at work as moderator of life satisfaction): Spirituality at work moderates the impacts of the pandemic's negative consequences on general life satisfaction. Specifically, for employees with higher spirituality at work, the negative effect on general life satisfaction is smaller than for those with lower spirituality at work.*

## Method

### Data and Sample

We collected our data via an employee survey in two waves, the first wave during October and November 2019 and the second wave in the summer of 2020. The first wave of the survey in the autumn of 2019 took place before the COVID-19 pandemic struck Germany and before the topic attracted intensive international media attention. At the time, the majority of participants were not aware of the COVID-19 pandemic. The second wave of the survey was administered in the summer of 2020 after the pandemic's first wave had already swept through Germany. In retrospect, this second wave was surveyed relatively early on in the pandemic and after a relatively weak first wave of infections, with incidence figures far below 100 per 100,000 inhabitants. However, people had already experienced intense consequences of the COVID-19 pandemic at the time, such as the widespread shutdown of public life, school and daycare closures, restrictions on shopping, and strict limitations on private or professional meetings. Further, employers often ordered their employees to work in home offices. Easter celebrations and services were severely limited. Media coverage of the COVID-19 threat and its consequences in other more severely affected countries was omnipresent in Germany at the time. Also, there was a serious shortage of necessary hygiene items such as disinfectants and mouth-nose protection in Germany, and an effective vaccination in sufficient quantities to ward off the pandemic was not yet in sight.

for the foreseeable future. Thus, all in all, there was a situation of high perceived *Unverfügbarkeit* – manageability and controllability of life were low, uncertainty and complexity were high, and there was no end in sight – when we administered the second wave of the survey.

The respondents were aged 18 to 67, lived in Germany, and worked for their income. The sample comprised 1,468 people who were surveyed at both points in time. The sample was representative of Germany's population by age and gender (quota sampling). We collected the data via an online questionnaire, acquiring participants via a panel data provider. Imputation was not necessary since missing values occurred completely at random (insignificant Little MCAR test). For the analysis of the effect concerning job satisfaction, we dropped 113 cases list-wise owing to missing values and analyzed a sample of 1,355 persons. For the analysis of the effect concerning life satisfaction, we dropped 110 cases list-wise and analyzed a sample of 1,358 persons.

In the dataset were 815 female and 653 male persons. The average age was 46.5 years; 54.2 % were married. On average, the individuals earned between €1,800 and €2,000 per month, and 30.7 % had a formal school education that allowed access to a university. 16.9 % of the participants lived in eastern Germany (the former GDR); 57.0 % worked in a home office at the time. Table 1 contains more descriptive data and correlations.

**Table 1. Means, Standard Deviations, and Correlations**

	Mean	SE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Negative consequences of the pandemic	1.7967	.81257														
2. Spirituality at work	2.6787	.94931	.205**													
3. Life satisfaction 2020	7.83	1.941	-.230**	.243**												
4. Job satisfaction 2020	7.94	2.134	-.150**	.410**	.493**											
<i>Covariates</i>																
5. Gender	1.45	.501	-.020	.052	.029	.034										
6. Age <sup>a</sup>	2161.4775	953.3511	-.205**	-.092**	.052	.121**	-.043									
7. Education (ISCED)	4.52	1.755	.003	.084**	.083**	.044	-.026	.091**								
8. Marital status	2.75	1.872	-.007	-.068*	-.162**	-.099**	-.028	-.154**	-.048							
9. Health	2.25	.763	.117**	-.168**	-.440**	-.312**	-.027	.159**	-.125**	.081**						
10. Life satisfaction 2019	7.79	1.905	-.115**	.196**	.568**	.415**	.031	.033	.091**	-.177**	-.313**					
11. Job satisfaction 2019	7.79	2.247	-.068*	.396**	.356**	.587**	.029	.045	.004	-.106**	-.221**	.437**				
12. Positive consequences of the pandemic	3.0490	1.01085	.150**	.220**	.087**	.103**	.123**	.010	.005	-.003	-.039	.043	.032			
13. Home office	.57	.495	-.103**	-.066*	-.037	-.124**	.037	.052	-.295**	.003	.069*	-.068*	-.062*	-.123**		
14. FormGDR (eastern/western)	.1771	.38191	-.060*	.014	.026	.034	.048	.016	.001	-.014	-.030	-.002	.000	-.083**	.108**	
15. Log_income	.8509	.26042	-.062*	.071**	.193**	.123**	-.211**	.033	.244**	-.130**	-.110**	.183**	.060*	.009	-.180**	-.086**

Notes: N = 1,355, significance levels (two-tailed): \* = 5 %, \*\* = 1 %.

## Measurement

We measured job satisfaction on a 10-point scale according to Richter et al. (2017) with the item *How satisfied are you with your work? If necessary, relate this question to your main work job* and life satisfaction on a 10-point scale, according to Beierlein et al. (2014), with the item *Now it's about your overall satisfaction with life. How satisfied are you, all in all, with your life at present?*

We measured spirituality at work using the German short version of Kinjerski's (2013) Spirit at Work Scale, according to Moll (2020), along with five-point agreement scales as a multi-item construct. We based further evaluation on an equal-weighted scale index of the construct (Cronbach's  $\alpha = .842$ ).

We measured negative individual consequences of the COVID-19 pandemic using an equal-weighted index via a multi-item construct with seven items, each measured along a five-point agreement scale (Cronbach's  $\alpha = .821$ ). The construct included aspects such as the threat of losing one's job or switching to short-time work, economic insecurity, but also existential experiences with illness and death, loneliness, or stress caused by the need to home-school children. Table 2 contains an overview of the items.

**Table 2. Measurement of Individual Negative Consequences of the Pandemic**

Negative consequences of the pandemic	
Item name	
cov_shorttime	I do short-time work or have lost many jobs as a self-employed person.
cov_jobloss	I have lost, or am in danger of losing, my job.
cov_homeschool	I am very burdened by parallel home-schooling/child-care and my work.
cov_existthreat	My economic existence is threatened.
cov_ill_death	In the course of the COVID-19 crisis, I have made profound existential experience with illness or death.
cov_lonely	I suffer from loneliness and isolation from the ban on contact.
cov_stress_inc	My stress level has increased due to the measures concerning COVID-19.
Positive consequences of the pandemic	
cov_stress_dec	My stress level has decreased due to the measures concerning COVID-19.
cov_priorities	I am gaining new priorities and insights into what is important in life.
cov_environment	I am happy to see a decrease in traffic, traffic noise, and other positive environmental impacts.

Beyond the core variables, we controlled for the demographics with the covariates age, gender, marriage status, education, health, income, and regional workplace. We controlled for age-squared in years (Hochwarter et al., 2001) and gender (male = 0, female = 1) because peer groups with their specific norms and stereotypes, societal roles, and reference points in evaluating one's own life and job satisfaction may differ between age and gender groups. Further, existential problems (regarding life,

giving birth, health, illness, and death) may vary with age and gender and may influence satisfaction as well as spiritual needs. Indeed, age and gender are known to influence job satisfaction and general life satisfaction. For instance, Felbermayr et al. (Felbermayr et al., 2017) found that age and gender affect general life satisfaction levels. Other authors also found a link between age and job satisfaction (Lee & Wilbur, 1985) and differences in job satisfaction between genders (Clark, 1997; Lambert et al., 2001).

We controlled for education since the educational level may affect life and job satisfaction (Felbermayr et al., 2017; Lambert et al., 2001).

Furthermore, we recorded subjectively perceived health with the question *How is your health in general? Would you say it is...?* (with answers on a scale between very good and very poor). Health influences whether and how individuals address existential and transcendent topics in life. Hence, health may have many bilateral relationships with spiritual needs and capabilities and is known to influence general life satisfaction (Strine et al., 2008) and job satisfaction (Faragher et al., 2005).

We asked about school and academic education according to the ISCED scheme (UNESCO Institute for Statistics, 2012) (from no degree to PhD) since education level may influence life and job satisfaction (Felbermayr et al., 2017; Lambert et al., 2001).

Pickel (2013) surveyed spiritual differences between Eastern and Western Germany. Previous research showed that there are also differences in general life satisfaction between Germany's federal states (Felbermayr et al., 2017) and that job characteristics affect job satisfaction (Loher et al., 1985), with working conditions still differing between the East (former GDR) and West Germany (former FRG) (Wolf, 2010). Thus, we asked about the primary regional location of work via *In which federal state is your primary place of employment located?* We coded the location with 0 = FRG ('old' federal states, western Germany) and 1 = former GDR ('new' federal states, eastern Germany).

Some of the pandemic's effects may impact stronger or in different ways on employees who do office work and could or had to work from home during the pandemic. For instance, feeling isolated in the home office, work-home-related conflicts owing to home office and home-schooling, the disruption of normal work and workday routines, and the lack of personal contact with colleagues and supervisors will be much more relevant for employees working remotely from the home office than for employees who had to work at the organization's premises. The latter group may experience other negative effects, for instance, a fear of being infected by customers, colleagues, and patients or while commuting in public transportation. To control for such differences, we included a binary covariate indicating whether a person was working at the home office during the pandemic.

Since COVID-19 can have both negative and positive effects, we also included an index of three positive effects as a covariate measured on a five-point agreement scale (Cronbach's  $\alpha = .725$ ). These effects included, firstly, reduced stress, for instance, owing to shorter travel times or more time at home; secondly, a greater awareness of one's priorities in life; and thirdly, experiencing less environmental pollution, for example, by reduced traffic noise or cleaner air (for the item texts, see Table 2).

We controlled for income since it may affect coping with uncertainty and *Unverfügbarkeit* and impact work and life satisfaction. We measured income according to question and scheme Q105 of the European Working Conditions Survey (European Working Conditions Surveys [EWCS], 2015) and analyzed it in  $\log_{10}$  form in the models owing to item skewness.

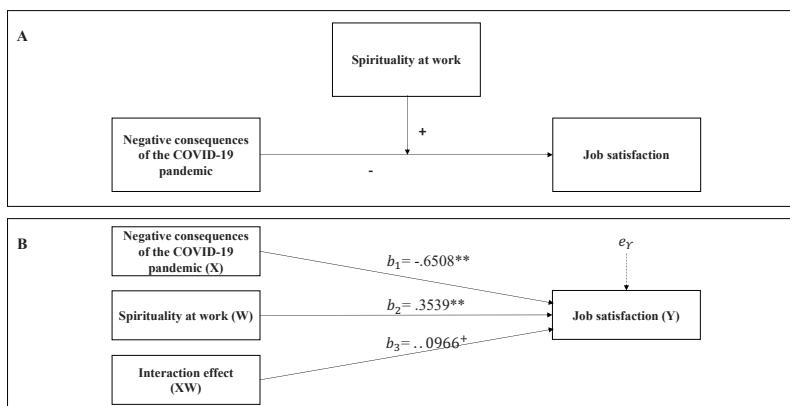
Also, we asked about job satisfaction and life satisfaction in the first wave of the survey in 2019 and used these items as further covariates to control for individual levels of life and job satisfaction before the COVID-19 pandemic started.

### Analytical Strategy

We analyzed the data in two simple linear moderation models to test H1 and H2. Figure 1 and Figure 2 provide an overview of the models. We tested the moderation effect of spirituality at work on the relationship between the pandemic's negative consequences on job satisfaction in model 1 and on life satisfaction in model 2.

**Figure 1. Moderation of the Effects of the Pandemic's Negative Consequences on Job Satisfaction 2020 by Spirituality at Work (Shown as Conceptual Diagram A and Statistical Diagram B)**

Model 1

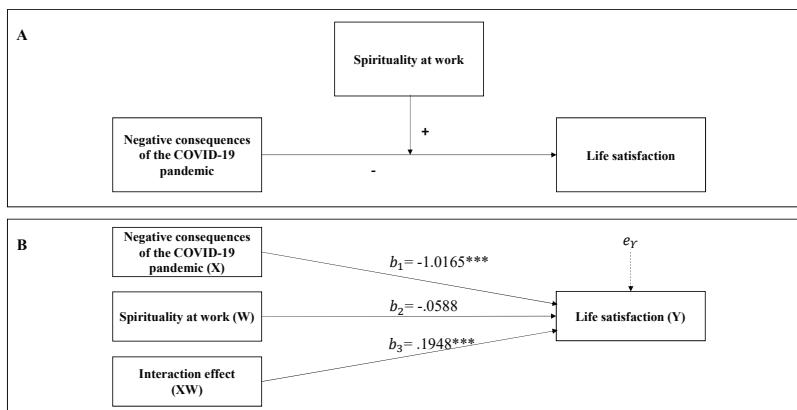


Notes: +  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; all presented effects are unstandardized; X = independent variable; Y = dependent variable; W = moderator of X's effect on Y; own representation based on Hayes (2018).

We conducted the analysis using ordinary least squares (OLS) regression assumptions through SPSS 27 and the PROCESS Macro version 3.5 by Hayes (2018), applying heteroscedasticity robust standard errors (HC3).

**Figure 2. Moderation of the Effect of Negative Consequences of the Pandemic on Life Satisfaction 2020 by Spirituality at Work (Shown as Conceptual Diagram A and Statistical Diagram B)**

Model 2



Notes: +  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ; all presented effects are unstandardized; X = independent variable; Y = dependent variable; W = moderator of X's effect on Y; own representation based on Hayes (2018).

## Results

### Results of Model 1 on Job Satisfaction

The results of the simple linear moderation analysis for model 1 (see Table 3 and Figure 1) show a regression coefficient of the negative consequences of the pandemic (X) of  $b_1 = -.6508$  ( $p = .0019$ ). Employees who were one unit higher on the scale of the pandemic's negative consequences were .6508 units lower in job satisfaction, supporting H1a. The regression coefficient for spirituality at work (W) was  $b_2 = .3539$  ( $p = .0015$ ). The regression coefficient for the interaction effect (XW) was  $b_3 = .0966$  ( $p = .0883$ ). The interaction effect is weakly statistically significant at the 10 % level. Thus, the effect of the pandemic's negative consequences on job satisfaction in 2020 was moderated by spirituality at work, supporting H1b. As spirituality at work increased by one unit, the difference in job satisfaction between those who experienced the pandemic's negative consequences and those who did not increase by .0966 units. The share of the variance in job satisfaction explained by the moderation effect was  $R^2 = .0014$ .

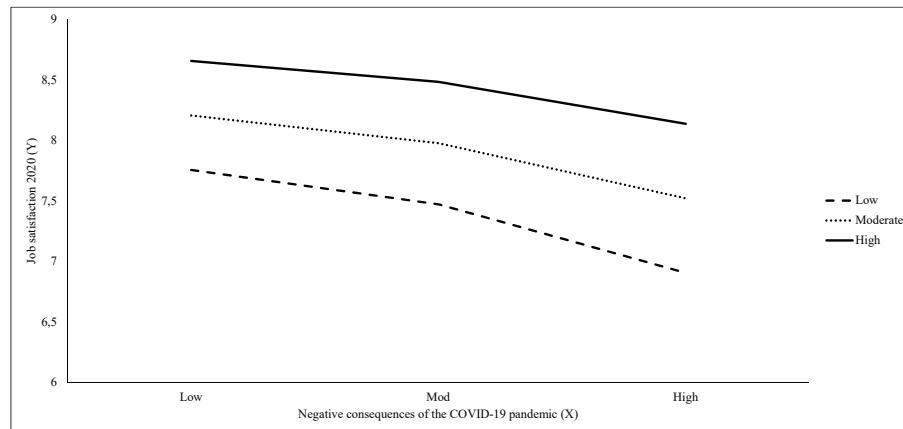
**Table 3. Regression Coefficients, Standard Errors, and Model Summary Information for the Simple Moderation Models 1 and 2**

Independent variables	Model 1						Model 2					
	Job satisfaction 2020 (Y)			Dependent variable			Life satisfaction 2020 (Y)			Dependent variable		
	Coeff.	SE	p	Coeff.	SE	p	Coeff.	SE	p	Coeff.	SE	p
Constant	$\hat{y}$	4.6311	.5666	<.001	$\hat{y}$	6.1798	.5822	<.001				
Negative consequences of the pandemic (X)	$b_1$	-.6508	.2094	.0019	$b_1$	-.10165	.1819	<.001				
Spirituality at work (W)	$b_2$	.3539	.1110	.0015	$b_2$	-.0588	.1018	.5640				
Interaction effect (XW)	$b_3$	.0966	.0566	.0833	$b_3$	.1948	.0576	<.001				
<i>Covariates</i>												
Gen	.0523	.0902	.5623	.0168	.0816	.8372						
Age <sup>2</sup>	.0003	.0001	<.001	.0001	.0000	.0298						
Education (ISCED)	-.0266	.0262	.3105	-.0056	.0237	.8144						
Marital status	.0008	.0235	.9716	-.0441	.0215	.0406						
Health	-.4732	.0744	<.001	-.6563	.0651	<.001						
Life satisfaction 2019				.4216	.0333	<.001						
Job satisfaction 2019	.4102	.0306	<.001									
Positive consequences of the COVID-19 pandemic	.0832	.0479	.0828	.1045	.0413	.0115						
Home office	-.3795	.0923	<.001	.0530	.0834	.5251						
FormEDR (east/west)	.1799	.1065	.0913	.0755	.0891	.4462						
Log_income	.3500	.1926	.0695	.4815	.1840	.0090						
			$R^2 = .4602$									
			$R^2 \text{ adj.} = .455$									
			$p = <.001$									
N			1,355									1,358

Notes: heteroscedasticity consistent standard error and covariance matrix estimator; coefficients are unstandardized.

Figure 3 shows that for employees who were high in spirituality at work, as the pandemic's negative consequences increased, job satisfaction decreased less strongly compared to those who were moderate or low in spirituality at work.

**Figure 3. Representation of the Moderating Effect of Spirituality at Work (W) On the Relationship Between Negative Consequences of the Pandemic (X) And Job Satisfaction 2020 (Y)**

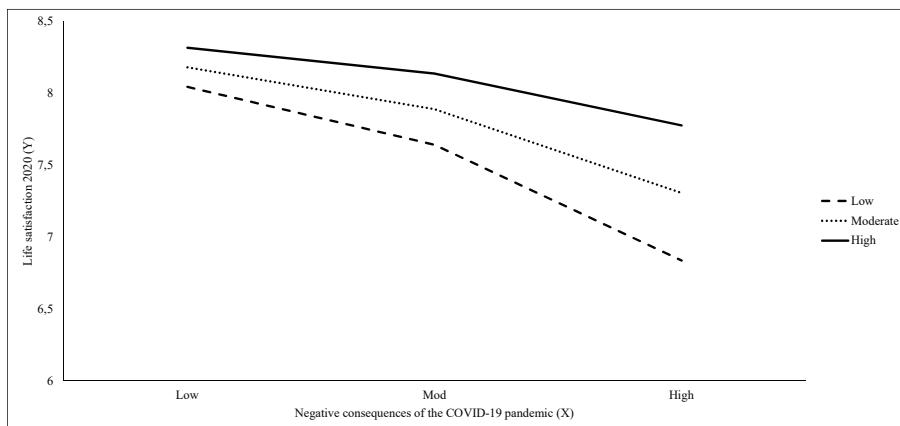


## Results of Model 2 on Life Satisfaction

The results of the simple linear moderation analysis for Model 2 (see Table 3 and Figure 2) show that the regression coefficient of the negative consequences of the pandemic (X) was  $b_1 = -1.0165$  ( $p < .001$ ). Those who were one unit higher on the scale of the pandemic's negative consequences were 1.0165 units lower in life satisfaction, supporting H2a. The regression coefficient for spirituality at work (W) was  $b_2 = -.0588$  ( $p = .5640$ ). The regression coefficient for the interaction effect (XW) was  $b_3 = .1948$  ( $p < .001$ ). The interaction effect was statistically significant at the 0.1 % level. Therefore, the effect of the pandemic's negative consequences on life satisfaction depends on spirituality at work. Specifically, as spirituality at work increases by one unit, the difference in life satisfaction between those who experienced negative consequences of the pandemic and those who did not, increased by .1948 units. Thus, spirituality at work is a moderator of the effect of the pandemic's negative consequences on life satisfaction, supporting H2b.

Figure 4 shows that for employees who were high in spirituality at work, as negative consequences of the COVID-19 pandemic increased, life satisfaction decreased less strongly than for employees who were moderate or low in spirituality at work. Further, the share of the variance in life satisfaction explained by the moderation of the effect of the pandemic's negative consequences on spirituality at work was  $R^2 = .0069$ .

**Figure 4. Representation of the Moderating Effect of Spirituality at Work (W) On the Relationship Between Negative Consequences of the Pandemic (X) And Life Satisfaction 2020 (Y)**



Summarizing our results, we can state that our findings have extended the knowledge of how spirituality at work functions as a coping mechanism when dealing with *Unverfügbarkeit* and negative life events caused by the COVID-19 pandemic. We specifically analyzed the links between the pandemic's negative consequences and job satisfaction (model 1) as well as life satisfaction (model 2) and the moderating effect of spirituality at work on these two relationships. Concerning job satisfaction, our results supported our hypotheses. Employees who experienced the pandemic's negative impacts had significantly lower job satisfaction than those who did not experience such negative effects (H1a). We further hypothesized that, for employees with higher spirituality at work, the pandemic's negative effect on job satisfaction is smaller than for those with lower spirituality at work (i.e. that spirituality at work would significantly moderate the impacts of the pandemic's negative consequences on job satisfaction (H1b)). This interaction effect was weakly significant ( $p = .0883$ ). Further, employees with higher spirituality at work experienced significantly higher job satisfaction since the direct effect was significant.

Also, the results support our hypotheses about life satisfaction. Employees who experienced the pandemic's negative consequences had significantly lower life satisfaction than those who experienced no such or less severe negative impacts (H2a). For employees with higher spirituality at work, the negative effect of the pandemic's negative consequences on general life satisfaction was significantly smaller than for those with lower spirituality at work (H2b). However, the direct effect of spirituality at work on life satisfaction was not significant.

However, the shares of the variance explained by spirituality at work and its effects is quite small.

## Discussion

All in all, our results support our hypotheses and strengthen the notion that spirituality functions as a buffer against the negative effects of the pandemic on (job and life) satisfaction and, thus, the well-being of employees. Our results are not self-evident, and in some respect even surprising: Because often people turn to religion or spirituality if there is hardship in their life, especially if they are confronted with death, severe illness, or old age. If so, people with such hardships who are probably less satisfied with their job and life should exhibit a high level of spirituality or religion, not the other way around. While we cannot analyze causality with our linear regression models, the positive correlation between spirituality and job satisfaction shows that spirituality at work can have a buffer function against negative life experiences.

A possible reason why the moderating effect of spirituality at work on job satisfaction was only weakly significant ( $p = .0883$ ) might have to do with the specific character of spirituality *at work* as a manifestation of spirituality in the specific realm of work. If we interpret spirituality as a need that individuals would like to satisfy by expressing and practising spirituality in specific domains they decide on, the specific domains in which employees can express, and manifest spirituality come into focus. With neutral or negative employer stances towards spirituality at work and a culturally anchored restrictive approach to dealing in public with (religious) spirituality in Germany, employees may decide to satisfy their spiritual needs not at work but in other, more private areas of their lives (Aleweli & Moll, 2021b). In consequence, the impact of spirituality at work as a coping strategy concerning job satisfaction may be weak if employees perceive that they cannot (optimally) satisfy their spiritual needs in the work context. However, a limitation of our dataset is that a powerful measurement of general spirituality is not available. So we did not have the opportunity to analyze these relationships in greater detail. It would be necessary to analyze the various links between the pandemic's negative consequences and job as well as life satisfaction with general spirituality as a moderator.

Additionally, it is important for future research to consider the employers' stances and potential differences between countries or cultures. The effects of spirituality in a more or less public domain as work are coined by culture in important ways. For example, the norms of how openly people live their religion and spirituality and how openly one talks about related topics are very culture-sensitive. There is a strong trend of secularization in Germany, therefore spirituality is not a well-known and widespread factor of resilience or resource anymore, and it remains an open question if and which people in Germany still know about spiritual traditions and can apply these to their own life as a resource that helps to stir through crises. However, this may be completely different in other countries and cultures. Recent studies from India, also conducted during the COVID-19 pandemic, show

a positive effect of workplace spirituality on the well-being of employees working in the hospitality sector (Aboobaker, 2022; Srivastava & Gupta, 2022). Thus the positive effects of spirituality at work on employee well-being indicators as life and job satisfaction, possibly exist within different (spiritual or religious) cultures. Further research that includes measures on the spiritual stances of employers and integrates a cultural perspective would be most helpful (Miller & Ewest, 2013; for further information on such scales, see Miller et al., 2018; Moll, 2020).

A second reason for the only slightly significant results on the moderation effect on job satisfaction could be that different employee groups work and live under very different (working and living) conditions and therefore experience very different consequences of the pandemic. For instance, employers may apply differing HR measures and show different levels of precaution, fear, or trust in the future. Some may send all employees into the home office, and others may only apply rules of distance, some sort of protection against direct contact, or enact work with mouth-nose protections, and still other employers may try to booster the immune system of their employees by caring for healthy food, breaks in the fresh air and low-stress levels. Employee's feelings of isolation will be much stronger for persons who work in the home office and live alone, while fears of infection, illness, and death may be much stronger for employees working on-site in a hospital, a supermarket, or other premises with close contact to patients and customers. Or to give another example, parents and nonparents have had very different experiences during the pandemic (Möhrling et al., 2021). A limitation of our dataset is that we could not differentiate exactly enough between such employee groups and their working conditions. While we controlled for working in the home office, further and more specific controls on the working and living conditions would be helpful. Further research should thus differentiate between different employee groups with regard to their working and living conditions.

Nonetheless, employees' spirituality at work seems, on average, to buffer the pandemic's consequences concerning job and life satisfaction. The results showed that, especially if employees experienced strong negative consequences, spirituality at work made a difference in their life satisfaction (Figure 4) and job satisfaction (Figure 3). As (work) life has changed, and the borders between the work and non-work domains continue to blur, spirituality at work functions as a buffer between the pandemic's negative consequences and life and job satisfaction and as a coping mechanism to deal with the *Unverfügbarkeit* in the current situation.

This is also in line with the finding that spirituality at work does not have a significant direct effect on life satisfaction. A possible explanation for this is that the pandemic's negative consequences we asked about in our research primarily related to the work domain, especially the changes in working conditions caused by the pandemic, such as isolation owing to working from home, parallel home-schooling or home-care for children, and the fear of job loss. While spirituality at work may

function as a buffer for these consequences, it may not work as a buffer on the decrease in satisfaction with other life domains, for instance, the private and family situation, friends, hobbies, and health. Researchers are encouraged to investigate whether other manifest forms of spirituality or general spirituality may work as a buffer for different life domains and consequently on overall life satisfaction. However, if spirituality at work helps to induce satisfaction in the domain of working life, it may stabilize a person who experiences strong negative effects of the pandemic in relation to their work, may help to cope with *Unverfügbarkeit* at work, and may thus stabilize satisfaction in a key area of life.

However, the share of the variance explained by spirituality at work and its effects is quite small. Thus, researchers should look for other variables, especially from the domain of working conditions and Human Resource Management, that impact job and life satisfaction and compare the relative contribution of spirituality and working conditions variables.

Another limitation of our work is that data from the second wave were already gathered in late spring/early summer 2020 – an early point in time in the development of the pandemic. Since then, the pandemic has continued, and at least two more waves of infections have swept the country, with many political changes, activities, and societal discussions. Some effects and consequences will already have changed as the pandemic and the virus mutated into "long-term companions" and did not vanish promptly and swiftly, as many had hoped last spring – and continue to hope. Thus, research should monitor the ongoing developments and the long-term effects of the pandemic. Data from different points in time, with information on the various health and infection situations, public measures (such as strict regulations or lockdowns, phases of relative ease in restrictions), and public debate should be compared.

In general, the findings of our study are in line with previous research that called for the investigation of the psychological consequences of the COVID-19 crisis (Zachrer & Rudolph, 2021) and especially of the relevance of (religious) spiritual coping strategies (Arslan & Yıldırım, 2021; Counted et al., 2020). Our research has advanced these claims, illustrating their relevance in the work context. Although most employers have introduced measures to decrease the physical health consequences of COVID-19 (e.g. home office, mask requirements, regular testing), to date, to our knowledge, very few measures have been taken to counteract impairments of employees' mental health and well-being. However, our findings showed a decrease in subjective well-being (life and job satisfaction) related to the pandemic. This underscores the need for employers to not only prevent physical health problems but also to focus on the subjective well-being of their employees (life and job satisfaction). Our research proposed that measures that facilitate and support (manifest) spirituality at work may help employees to cope with the negative consequences of the pandemic. Previous qualitative and small-scale research results provided

reasons to assume that German employers often take a neutral or avoiding stance toward religious spirituality but have a more positive stance toward nonreligious spirituality (Alewell & Moll, 2021a). However, there is a (small?) possibility that the experiences during the pandemic may result in changes to these attitudes. The pandemic, with its several negative impacts on people, can change employers' stances on spirituality in the direction of greater openness and positive attitudes toward spirituality at work. As crisis and existential questions of life and death affect the whole of society more intensely than before the pandemic, spiritual needs may strengthen – and, even for non-spiritual persons, the necessity of good coping strategies and resilience buffers may become more convincing. Other research has already explored what German employers already offer in the realm of spirituality at work (Alewell & Moll, 2021a). Employers can decide to support employees and their individual spirituality, for instance by offering meditation within business premises, creating rooms of silence, employing workplace chaplains and accepting religious services or prayer groups on business premises, coordinating yoga courses or other opportunities for employees to live their spirituality at work. They can support their employees, for instance, by granting the right to use rooms on business premises for spiritual practices, coordinating, organizing, or paying for trainers or coaches who offer various courses, or may grant the right to attend these during working time. For that reason, employers have a wide range of fine-grained opportunities to support individual spirituality and individual spiritual expression at work.

## Conclusion

Our findings suggest that spirituality at work can serve as a coping strategy that helps employees to deal with the negative consequences of the COVID-19 pandemic. The pandemic's negative consequences less negatively affect the job and life satisfaction of employees with a higher spirituality at work. Employers may want to think about their stances towards spirituality at work and help their employees to deal with impairments to their well-being. This is especially important as further crises have developed, which spur situations of *Unverfügbarkeit*. Climate change has gained dramatic speed, and the war in Ukraine and the energy crises pose new challenges to societies and economic systems – and leave the world in an even more unstable state. It is urgent to think about our reactions to *Unverfügbarkeit* – and to facilitate coping strategies and buffers for all life domains across different countries and cultures.

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