Spirituality, religiosity and the mental health consequences of social isolation during Covid-19 pandemic

Giancarlo Lucchetti1, Leonardo Garcia Góes2, Stefani Garbulio Amaral2, Gabriela Terzian Ganadjian2, Isabelle Andrade2, Paulo Othávio de Araújo Almeida3, Victor Mendes do Carmo3 and Maria Elisa Gonzalez Manso2

Abstract

Background: Evidence shows that religiosity and spirituality (R/S) are highly used in critical moments of life and that these beliefs are associated with clinical outcomes. However, further studies are needed to assess these beliefs during the COVID-19 pandemic.

Aims: To evaluate the use of R/S during the COVID-19 pandemic in Brazil and to investigate the association between R/S and the mental health consequences of social isolation.

Methods: Cross-sectional study conducted in May 2020. Online surveys were carried out assessing sociodemographics, R/S measures, and social isolation characteristics and mental health consequences (hopefulness, fear, worrying and sadness). Adjusted regression models were used.

Results: A total of 485 participants were included from all regions of Brazil. There was a high use of religious and spiritual beliefs during the pandemic and this use was associated with better mental health outcomes. Lower levels of worrying were associated with greater private religious activities (OR = 0.466, CI 95%: 0.307–0.706), religious attendance (OR = 0.587, CI 95%: 0.395–0.871), spiritual growth (OR = 0.667, CI 95%: 0.448–0.993) and with an increase in religious activities (OR = 0.660, CI 95%: 0.442–0.986); lower levels of fear were associated with greater private religious activities (OR = 0.632, CI 95%: 0.422–0.949) and spiritual growth (OR = 0.588, CI 95%: 0.392–0.882) and, lower levels of sadness (OR = 0.646, CI 95%: 0.418–0.997) were associated with spiritual growth. Finally, hope was associated with all R/S variables in different degrees (ranging from OR = 1.706 to 3.615).

Conclusions: R/S seem to have an important role on the relief of suffering, having an influence on health outcomes and minimizing the consequences of social isolation. These results highlight the importance of public health measures that ensure the continuity of R/S activities during the pandemic and the training of healthcare professionals to address these issues.

Keywords

COVID-19, pandemic, spirituality, religion and medicine, mental health

Introduction

Since the end of January 2020, the World Health Organization (WHO) has officially declared the COVID-19 epidemic as a public health emergency of international interest (Lake, 2020). In this context, the experience reported in previous humanity crises have shown that individuals exposed to these situations can usually develop a series of mental health problems, such as post-traumatic stress disorder, depression, generalized anxiety, panic, phobias and substance abuse (Acierno et al., 2007; Mason et al., 2010).

The COVID-19 pandemic is having and will have important consequences, not only to the physical health, but also to the mental health of the population (Pfefferbaum & North, 2020). A recent systematic review (Rogers et al., 2020) found that religiosity and spirituality are highly used in critical moments of life and that these beliefs are associated with clinical outcomes. However, further studies are needed to assess these beliefs during the COVID-19 pandemic.
have carried out in the month of May 2020 (the peak of the
COVID-19 pandemic in Brazil). This study was submitted
and approved by the Ethics Research Committee of the São
Camilo University Center (São Paulo, Brazil) under approval
number 4.047.769, CAAE 31154920.0.0000.0062 and all
participants consent to participate signing an online form.

**Methods**

This was an observational cross-sectional quantitative study
in order to minimize contagion and consequences for public
health systems (Usher et al., 2020). If on the one hand,
social distancing has reduced the pressure on hospital
beds; on the other hand, it has caused other consequences
such as unemployment, lack of medical appointments and
impairment in mental health (Rogers et al., 2020;
VanderWeele, 2020b).

The exposure to the pandemic stress and the social iso-
lation seem to increase mental health problems, creating
challenges for public health managers and mental health-
care professionals (Banerjee, 2020). In this situational
framework, individuals become more vulnerable to nega-
tive feelings (e.g. anxiety and fear) and irrational ideas,
which may be intensified by news reports on the increase
in cases and deaths (Lima et al., 2020).

There are several strategies to reduce these negative
consequences of social isolation, such as using social
medias, contacts with family and friends through digital
technologies, online classes, virtual workplaces and the
use of religious and spiritual beliefs (Galea et al., 2020;
Koenig, 2020). In fact, religiosity and spirituality (R/S)
have been used to handle crisis situations and stress for a
long time (Ebadi et al., 2009; Schuster et al., 2001; Thune-
Boyle et al., 2006). Studies have already reported the
effects of R/S in physical and mental health, promoting
higher levels of life satisfaction, well-being, sense of pur-
pose, meaning of life, hope, optimism and lower rates of
anxiety, depression and substance abuse (Koenig, 2012).

The previous evidence suggests that R/S could be an
important tool for the population to deal with the new pan-
demic reality. However, despite the fact that several
authors have already proposed R/S interventions during
the pandemic (Del Castillo et al., 2020; Ferrell et al.,
2020), few studies (Pirutinsky et al., 2020; Weinberger-
Litman et al., 2020) have investigated how these beliefs
are used and whether they can minimize the social iso-
lation consequences during this pandemic.

In an attempt to bridge this gap, the present study aims
to evaluate the use of religious and spiritual beliefs during
the COVID-19 pandemic in Brazil and to investigate the
association between R/S and the mental health conse-
quences of the social isolation (i.e. hopefulness, fear, wor-
rying and sadness).

**Eligibility criteria**

In order to be included participants should: have at least
18 years old, live in Brazil (all regions were accepted), be
experiencing the pandemic of COVID-19, be able to read
and write in Portuguese and be in social isolation for at
least 10 days (this cutoff was used to guarantee that partici-
pants were facing the consequences of social isolation).

**Procedures**

Participants were invited online by the researchers using
social medias and emails. This was carried out using a
'snowball technique' (i.e. nonprobability sampling where
study subjects recruit future subjects from among their
contacts) in a sense that the researchers used their social
medias and emails and asked their own contacts to dis-
seminate the study to the largest number of individuals.
The questionnaire was available for answers during a
period of four complete weekdays.

**Instrument**

The questionnaire took approximately 10 minutes to be
filled in and it was delivered online using Google Forms®.
The first page of the form was an online consent and the
participant had the opportunity to agree or not with the
terms of the study. The following questions were used:

- a) Sociodemographic data: age, gender, profession,
  marital status and education.

- b) Religious and Spiritual Beliefs:
  - Religious affiliation: respondent could choose
different religious affiliations (e.g. Catholics,
Spiritists, Evangelicals) or could report not
having a religion. Those not having a religion
were separated in spiritual but not religious or
non-believers (e.g. atheists).
  - Religious attendance: the question ‘How often
do you attend church or other religious meet-
ings?’ based on the first item of the Duke
Religion Index validated into Portuguese was
used (Lucchetti, Lucchetti, Peres, Leão, et al.,
2012). Answers were adapted from the original
version using a likert of eight items ranging
from ‘Never’ to ‘Everyday’.
  - Religious private activities: the question ‘How
often do you spend time in private religious
activities, such as prayer, meditation or Bible
characteristics and its mental health consequences using mean and standard deviation for continuous measures and absolute numbers and percentages for ordinal or categorical measures. After this descriptive analysis, dichotomous variables were created for the Likert items.

In the inferential analyses, logistic regression models were conducted using dichotomous religious and spiritual measures (e.g. Religious attendance: 1 = Once a week or more and 0 = Less than once a week) as independent variables and the mental health consequences of social isolation (e.g. How afraid are you with the pandemic? 1 = Very afraid and 0 = Little/Not at all/Indifferent) as dependent variables. Models were adjusted for sociodemographics (Model 1: age, gender, profession, Marital Status, Education) and for the social isolation characteristics (Model 2: Region, number of days in social isolation, able to maintain your job or study at home, still having an income during social isolation, isolated with how many persons). Odds ratio were reported with 95% confidence intervals.

Analyses were carried out in SPSS 20.0 (SPSS Inc.) and a $p$-value $\leq 0.05$ was considered significant.

**Results**

From a total of 544 responses in the Google Forms, 485 participants were included in the final analysis. Reasons for exclusion were: participant didn’t agree with the consent term ($n = 1$), missing information ($n = 2$), less than 10 days of social isolation ($n = 30$) and duplicate data ($n = 26$).

The sample was mostly composed by females (79.2%), students (54.2%), with complete or incomplete university level (86.6%), single (70.3%), with mean age of 31.8 (SD 13.7) years and from all regions of Brazil. Concerning the religious and spiritual characteristics, 75.7% had a religious affiliation (42.8% of them Catholics), 17.5% did not have an affiliation but considered themselves ‘spiritual’ and 6.6% did not have a religious affiliation (Atheists and non believers). At least 44.1% attended to religious services once a week or more, 62.3% carried out religious private activities more than once a week and 76.7% considered religion important to their lives. Most participants (73.4%) reported that R/S was helping them to cope with the social isolation, 57.3% have experienced a spiritual growth and 33.8% believed that the social isolation has improved their religious activities (Table 1).

Table 2 presents the characteristics and consequences of social isolation. The number of days in social isolation was 41.9 (SD 8.4) and the number of persons isolated together in the same household was 2.5 (SD 1.3). Most participants were able to maintain their routine of job or study (84.1%) and their income (50.5%). As a consequence of social isolation, 31.5% of participants were ‘very afraid’, 65.2% were ‘very worried’ and 24.7% were ‘very sad’ with the pandemic. Despite these numbers, 60.4% reported being ‘very hopeful’ with this situation.
The logistic regression models for the association between religious variables and mental health outcomes are shown in Table 3. After adjustment: (a) participating in private religious activities was associated with lower levels of fear (OR = 0.632, CI 95%: 0.422–0.949, \( p < 0.05 \)) and lower levels of worrying (OR = 0.466, CI 95%: 0.307–0.706, \( p < 0.001 \)), (b) Higher levels of spiritual growth was associated with lower levels of fear (OR = 0.588, CI 95%: 0.392–0.882, \( p < 0.05 \)), lower levels of worrying (OR = 0.667, CI 95%: 0.448–0.993, \( p < 0.05 \)) and lower levels of sadness (OR = 0.646, CI 95%: 0.418–0.997, \( p < 0.01 \)), (c) higher levels of religious attendance was associated with lower levels of worrying (OR = 0.587, CI 95%: 0.395–0.871, \( p < 0.01 \)), (d) improving religious activities was associated with lower levels of worrying (OR = 0.660, CI 95%: 0.442–0.986) and (e) all religious variables were associated with hoping in different degrees (ranging from OR = 1.706 to 3.615).

**Discussion**

The present study investigated the association between R/S and the mental health consequences of social isolation during the COVID-19 pandemic in Brazil. Our findings indicated that there was a high use of religious and spiritual beliefs during the pandemic and that this use was associated with better health outcomes, as evidenced by the higher levels of hopefulness and lower levels of fear, worrying and sadness in the more religious and spiritual participants. These results highlight the role of R/S in coping with adverse situations and will be discussed below.

In fact, R/S have been proposed as important tools used to face suffering caused by trauma and stress based on...
specific strategies also known as spiritual and religious coping (Harrison et al., 2001). Coping can be used by individuals in a positive (e.g. meaning to be found, spiritual connection and benevolent religious reappraisals) or a negative way (e.g. religious struggle, punishment and reappraisal of God’s power) and, for this reason, it could have positive or deleterious consequences (Pargament et al., 1998). Several studies (Ebadi et al., 2009; Schuster et al., 2001; Thune-Boyle et al., 2006) have already shown that coping is frequently used in moments of stress.

### Table 3. Adjusted Logistic Regression models for the association between religious variables and social isolation outcomes.

|                                      | Unadjusted | Model 1 | Model 2 |
|--------------------------------------|------------|---------|---------|
| How afraid are you with the pandemic? 1 = Very afraid 0 = Little/Not at all/Indifferent |            |         |         |
| Religious attendance (Once a week or more) | 0.807 (0.547–1.190)NS | 0.717 (0.479–1.074)NS | 0.718 (0.477–1.080)NS |
| Religious private activities (More than once a week) | 0.717 (0.485–1.061)NS | 0.648 (0.434–0.969)* | 0.632 (0.422–0.949)* |
| Social isolation has changed the religious activities (Improved) | 1.249 (0.837–1.863)NS | 1.176 (0.782–1.768)NS | 1.156 (0.767–1.744)NS |
| Importance of religion (Important or Very Important) | 1.448 (0.902–2.326)NS | 1.361 (0.836–2.214)NS | 1.374 (0.841–2.246)NS |
| Religion/Spirituality helping in the isolation (Helping/Helping a lot) | 0.813 (0.530–1.246)NS | 0.701 (0.448–1.097)NS | 0.710 (0.452–1.115)NS |
| Spiritual growth during social isolation (Improved) | 0.686 (0.467–1.009)NS | 0.597 (0.399–0.894)* | 0.588 (0.392–0.882)* |
| How worried are you with the pandemic? 1 = Very worried 0 = Little/Not at all/Indifferent |            |         |         |
| Religious attendance (Once a week or more) | 0.657 (0.451–0.957)* | 0.616 (0.418–0.909)* | 0.587 (0.395–0.871)** |
| Religious private activities (More than once a week) | 0.510 (0.341–0.763)** | 0.476 (0.315–0.719)** | 0.466 (0.307–0.706)** |
| Social Isolation has changed the religious activities (Improved) | 0.674 (0.457–0.996)* | 0.651 (0.437–0.969)* | 0.660 (0.442–0.986)* |
| Importance of religion (Important or Very Important) | 1.086 (0.700–1.684)NS | 1.026 (0.655–1.609)NS | 1.030 (0.654–1.622)NS |
| Religion/Spirituality helping in the isolation (Helping/Helping a lot) | 0.830 (0.540–1.275)NS | 0.765 (0.491–1.192)NS | 0.773 (0.494–1.209)NS |
| Spiritual growth during social isolation (Improved) | 0.737 (0.503–1.080)NS | 0.681 (0.459–1.010)NS | 0.667 (0.448–0.993)* |
| How sad are you with the pandemic? 1 = Very sad 0 = Little/Not at all/Indifferent |            |         |         |
| Religious attendance (Once a week or more) | 0.763 (0.501–1.162)NS | 0.689 (0.446–1.065)NS | 0.695 (0.447–1.081)NS |
| Religious private activities (More than once a week) | 0.922 (0.604–1.409)NS | 0.867 (0.563–1.335)NS | 0.837 (0.530–1.295)NS |
| Social isolation has changed the religious activities (Improved) | 1.431 (0.934–2.192)NS | 1.365 (0.885–2.104)NS | 1.423 (0.916–2.210)NS |
| Importance of religion (Important or Very Important) | 1.689 (0.938–2.691)NS | 1.519 (0.886–2.602)NS | 1.474 (0.854–2.542)NS |
| Religion/Spirituality helping in the isolation (Helping/Helping a lot) | 0.941 (0.592–1.496)NS | 0.863 (0.533–1.398)NS | 0.889 (0.546–1.447)NS |
| Spiritual growth during social isolation (Improved) | 0.737 (0.487–1.116)NS | 0.669 (0.435–1.028)NS | 0.646 (0.418–0.997)* |
| How hopeful are you with the pandemic? 1 = Very hopeful 0 = Little/Not at all/Indifferent |            |         |         |
| Religious attendance (Once a week or more) | 2.177 (1.491–3.179)*** | 2.093 (1.407–3.112)*** | 2.208 (1.473–3.309)*** |
| Religious private activities (More than once a week) | 3.081 (2.101–4.518)*** | 2.930 (1.969–4.361)*** | 3.064 (2.047–5.487)*** |
| Social isolation has changed the religious activities (Improved) | 1.600 (1.078–2.374)* | 1.723 (1.141–2.603)* | 1.706 (1.126–2.585)* |
| Importance of religion (Important or Very Important) | 2.373 (1.547–3.642)*** | 2.008 (1.287–3.131)*** | 2.096 (1.336–3.290)*** |
| Religion/Spirituality helping in the isolation (Helping/Helping a lot) | 4.089 (2.673–6.254)*** | 3.491 (2.245–5.427)*** | 3.615 (2.309–5.658)*** |
| Spiritual growth during social isolation (Improved) | 3.797 (2.587–5.574)*** | 3.458 (2.320–5.155)*** | 3.615 (2.413–5.416)*** |

Model 1: Age, gender, profession, Marital Status, Education; Model 2: Region, number of days in social isolation, able to maintain your job or study at home, still having an income during social isolation, isolated with how many persons. NS = not significant.

*p < .05. **p ≤ .01. ***p ≤ .001.

previous study has shown that 90% of participants from a representative US sample (Schuster et al., 2001) reported having turned to religion to deal with the terrorist attacks on September 11, 2001. Similar results were also observed in war scenarios (Ebadi et al., 2009) and in chronic diseases (Thune-Boyle et al., 2006).

In the specific case of the COVID-19 pandemic, our results seem to be confirmed, since three out of four participants in this research declare S/R was helping them to cope with the social isolation and more than half have
experienced a spiritual growth. Although there are few studies available about the current pandemic, Google searches about prayer doubled for every 80,000 new cases of COVID-19 (Taylor, 2020), besides a great demand for religious and spiritual hotlines (Ribeiro et al., 2020) and religious community conference calls (Galiatsatos et al., 2020) were observed.

Not only the search for R/S seems to have increased, but also these beliefs seem to have a remarkable influence in mental health during the pandemic. Our findings revealed that R/S were associated with better health outcomes such as lower levels of sadness, fear and worrying, while they were also associated with higher levels of hope. Although such results have been extensively discussed in the previous decades (Koenig, 2012), few studies have assessed the actual pandemic moment.

One of the few studies that investigated the influence of R/S on health outcomes during the COVID-19 pandemic (Weinberger-Litman et al., 2020) included 303 members of North American religious communities and found no association between religious commitment with distress or anxiety. According to the authors, the lack of association is because this population is very religious and composed of members of specific religious traditions which may lead to a low variability of responses and minimized the statistical power. In the present study, this problem was reduced since our sample was more heterogeneous.

Another study (Pirutinsky et al., 2020) has investigated 419 American Orthodox Jews and found that positive religious coping, intrinsic religiosity and trust in God strongly correlated with less stress and more positive impact, while negative religious coping and mistrust in God correlated with the inverse. These results are similar to our findings indicating that faith may promote resilience during crisis.

Among various R/S variables assessed in our study, it is possible to note that spiritual growth and private religious activities were the most associated with positive outcomes during social isolation. These results are interesting because there is a tendency in previous studies to present religious attendance as the most important variable (VanderWeele, 2020a). In the COVID-19 pandemic, the restriction of mobility and social contact prevents routine religious attendance (Nicola et al., 2020) and, for this reason, other R/S strategies seem to offer the same benefits found by organizational religiosity.

According to Koenig (Koenig, 2020), social distance is an opportunity to develop a stronger relationship with God by personal religious activities, reading Holy scriptures and listening to or watching inspiring radio, podcast or TV programs. In the present study, it was possible to verify that at least one third of the participants reported having increased their religious activities during the pandemic. Several other initiatives have also been proposed to reduce the problem of the closure of religious services, such as prayer meetings on the balconies of buildings (Frei-Landau, 2020), religious celebrations in a place where people gather without leaving their vehicles (Modell & Kardia, 2020) and spiritual hotlines (Ribeiro et al., 2020).

Inside the hospitals, where feelings of brevity, finitude, vulnerability and impotence are more evident (Hart, 2020), the spiritual care of the health team, chaplains and local religious groups gains importance (Ferrell et al., 2020; Taylor, 2020). This holistic care can be provided by using compassionate presence, listening and communication skills (Puchalski et al., 2020), openness of the healthcare professional to the patient’s beliefs (Taylor, 2020) and also using telecommunication devices (e.g. telephone-based chaplaincy) for patients in isolation (Sprik et al., 2020). In addition to the genuine attention of the healthcare team, webmeetings with the loved ones and religious leaders seems to reduce loneliness and stress (Ferrell et al., 2020). Finally, R/S may help assisting the bereavement and suffering of the health team and families (Puchalski et al., 2020).

The present study has some limitations that should be considered while interpreting our results. First, this is a cross-sectional study and cause-effect relationships are not allowed. Second, our sample was mostly composed of women with high education levels. This is probably a result of the use of ‘snow ball’ sampling procedure which may have imbalanced the sample. Women are usually more religious than men and this could have impacted the high levels of R/S evidenced in our study. More Brazilian representative studies are needed. Third, Brazil is a highly religious country and more studies are needed in secular societies. Forth, single question measures were used to assess sadness, hope, worrying and fear. More complex instruments may be used in future studies. Finally, as reported previously, coping strategies can have negative and positive influences on mental health. However, our questionnaire was not able to identify the negative aspects of coping, which could have an impact in the outcomes.

Conclusion

Our findings corroborate with the opinion of previous authors that R/S seems to have an important role in reducing suffering, influencing health outcomes and minimizing the consequences of social distance (Hart, 2020; Hart & Koenig, 2020; Koenig, 2020). This data confirms the importance of public health measures to ensure the continuity of religious and spiritual activities during the pandemic and the training of healthcare professionals to address spiritual and religious beliefs of patients and families. Healthcare professionals must be aware of the positive and negative use of individuals’ beliefs in order to provide the most comprehensive care possible.

Acknowledgements

None
Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Giancarlo Lucchetti https://orcid.org/0000-0002-5384-9476
Victor Mendes do Carmo https://orcid.org/0000-0003-0435-7819

References

Acierro, R., Ruggiero, K. J., Galea, S., Resnick, H. S., Koenen, K., Roitzsch, J., de Arellano, M., Boyle, J., & Kilpatrick, D. G. (2007). Psychological sequelae resulting from the 2004 Florida hurricanes: Implications for postdisaster intervention. *American Journal of Public Health, 97*(Suppl 1), S103–S108.

Banerjee, D. (2020). The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian Journal of Psychiatry, 50*, 102014. https://doi.org/10.1016/j.ajp.2020.102014E

Del Castillo, F. A., Biana, H. T., & Joaquin, J. J. B. (2020). ChurchInAction: The role of religious interventions in times of COVID-19. *Journal of Public Health, 42*(3), 633–634. https://doi.org/10.1093/pubmed/ffaa086

Ebadi, A., Ahmadi, F., Ghaniei, M., & Kazemnejad, A. (2009). Spirituality: A key factor in coping among Iranians chronically affected by mustard gas in the disaster of war. *Nursing & Health Sciences, 11*(4), 344–350.

Ferrell, B. R., Handzo, G., Picchi, T., Puchalski, C., & Rosa, W. E. (2020). The urgency of spiritual care: COVID-19 and the critical need for whole-person palliation. *Journal of Pain and Symptom Management, 60*(3), e7–e11. https://doi.org/10.1016/j.jpainsymman.2020.06.034

Frei-Landau, R. (2020). “When the going gets tough, the tough get-Creative”: Israeli Jewish religious leaders find religiously innovative ways to preserve community members’ sense of belonging and resilience during the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(S1), S258–S260. https://doi.org/10.1037/tra0000822

Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA Internal Medicine, 180*(6), 817–818.

Galiatsatos, P., Monson, K., Oluyinka, M., Negro, D., Hughes, N., Maydan, D., Golden, S. H., Teague, P., & Hale, W. D. (2020). Community calls: Lessons and insights gained from a medical-religious community engagement during the COVID-19 pandemic. *Journal of Religion and Health, 59*(5), 2256–2262. https://doi.org/10.1007/s10943-020-01057-w

Harrison, M. O., Koenig, H. G., Hays, J. C., Eme-Akwarie, A. G., & Pargament, K. I. (2001). The epidemiology of religious coping: A review of recent literature. *International Review of Psychiatry, 13*(2), 86–93.

Hart, C. W. (2020). Spiritual lessons from the coronavirus pandemic. *Journal of Religion and Health, 59*(2), 623–624. https://doi.org/10.1007/s10943-020-01011-w

Hart, C. W., & Koenig, H. G. (2020). Religion and health during the COVID-19 pandemic. *Journal of Religion and Health, 59*(3), 1141–1143. https://doi.org/10.1007/s10943-020-01042-3

Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry, 2012*, 1–33.

Koenig, H. G. (2020). Maintaining health and well-being by putting faith into action during the COVID-19 pandemic. *Journal of Religion and Health, 59*(5), 2205–2214.

Lake, M. A. (2020). What we know so far: COVID-19 current clinical knowledge and research. *Clinical Medicine, 20*(2), 124.

Lima, C. K. T., de Medeiros Carvalho, P. M., Lima, I. d. A. S., de Oliveira Nunes, J. V. A., Saraiva, J. S., de Souza, R. I., da Silva, C. G. L., & Neto, M. L. R. (2020). The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease). *Psychiatry Research, 287*, 112915.

Lucchetti, G., Lucchetti, A. L. G., Peres, M. F., Leão, F. C., Moreira-Almeida, A., & Koenig, H. G. (2012). Validation of the duke religion index: DUREL (Portuguese version). *Journal of Religion and Health, 51*(2), 579–586.

Lucchetti, G., Lucchetti, A. L. G., Peres, M. F., Moreira-Almeida, A., & Koenig, H. G. (2012). Religiousness, health, and depression in older adults from a brazilian military setting. *ISRN Psychiatry, 2012*, 940747. https://doi.org/10.5402/2012/940747

Mason, V., Andrews, H., & Upton, D. (2010). The psychological impact of exposure to floods. *Psychology, Health & Medicine, 15*(1), 61–73.

Modell, S. M., & Kardia, S. L. R. (2020). Religion as a health promoter during the 2019/2020 COVID outbreak: View from Detroit. *Journal of Religion and Health, 59*(5), 2243–2255. https://doi.org/10.1007/s10943-020-01052-1

Nicola, M., Alsafi, Z., Sohrabi, S., Kerman, A., Al-Jabir, A., Josifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus and COVID-19 pandemic: A review. *International Journal of Surgery, 78*, 185–193.

Pargament, K. I., Smith, B. W., Koenig, H. G., & Perez, L. (1998). Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion, 37*(4), 710–724.

Pfefferbaum, B., & North, C. S. (2020). Mental health and the covid-19 pandemic. *New England Journal of Medicine, 383*(6), 510–512.

Pirutinsky, S., Cherniak, A. D., & Rosmarin, D. H. (2020). COVID-19, mental health, and religious coping among American Orthodox Jews. *Journal of Religion and Health, 59*(5), 2288–2301. https://doi.org/10.1007/s10943-020-01070-z

Puchalski, C., Jafari, N., Buller, H., Haythorn, T., Jacobs, C., & Frei-Landau, R. (2020). Interprofessional spiritual care education curriculum: A milestone toward the provision of spiritual care. *Journal of Palliative Medicine, 23*(6), 777–784. https://doi.org/10.1089/jpm.2019.0375

Ribeiro, M. R. C., Damiano, R. F., Marujo, R., Nasri, F., & Lucchetti, G. (2020). The role of spirituality in the COVID-19 pandemic: A spiritual hotline project. *Journal of Public Health. Advance online publication. https://doi.org/10.1093/pubmed/ffaa120*

Rogers, J. P., Chesney, E., Oliver, D., Pollak, T. A., McGuire, P., Fusar-Poli, P., Zandi, M. S., Lewis, G., & David, A.
Lucchetti et al. (2020). Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: A systematic review and meta-analysis with comparison to the COVID-19 pandemic. *The Lancet Psychiatry, 7*(7), 611–627.

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., Zhou, A. J., Kanouse, D. E., Morrison, J. L., & Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, 345(20), 1507–1512.

Sprik, P., Keenan, A. J., Boselli, D., Cheeseboro, S., Meadors, P., & Grossoehme, D. (2020). Feasibility and acceptability of a telephone-based chaplaincy intervention in a large, outpatient oncology center. *Supportive Care in Cancer*, 1–11.

Taylor, E. J. (2020). During the COVID-19 pandemic, should nurses offer to pray with patients? *Nursing2020, 50*(7), 42–46.

Thune-Boyle, I. C., Stygall, J. A., Keshtgar, M. R., & Newman, S. P. (2006). Do religious/spiritual coping strategies affect illness adjustment in patients with cancer? A systematic review of the literature. *Social Science & Medicine, 63*(1), 151–164.

Usher, K., Bhullar, N., & Jackson, D. (2020). Life in the pandemic: Social isolation and mental health. *Journal of Clinical Nursing, 29*(15–16), 2756–2757.

VanderWeele, T. J. (2020a). Activities for flourishing: An evidence-based guide. *Journal of Positive School Psychology, 4*(1), 79–91.

VanderWeele, T. J. (2020b). Challenges estimating total lives lost in COVID-19 decisions: Consideration of mortality related to unemployment, social isolation, and depression. *JAMA, 324*(5), 445.

Weinberger-Litman, S. L., Litman, L., Rosen, Z., Rosmarin, D. H., & Rosenzweig, C. (2020). A look at the first quarantined community in the USA: Response of religious communal organizations and implications for public health during the COVID-19 pandemic. *Journal of Religion and Health, 59*(5), 2269–2282. https://doi.org/10.1007/s10943-020-01064-x