The Relationship between Intimate Partner Violence, Perceived Stress and Quality of Life during and after the First COVID-19-Related Lockdown in Cyprus

Alexia Zalaf[1], **Andronikos Chatzis**[2],
Anastasia Economou[3], **Diamantoula Pappa**[4]

Abstract

This study investigates the relationships between intimate partner violence (IPV), perceived stress, and quality of life in Cyprus during and after the first lockdown as a result of the COVID-19 pandemic. Methods: Data was collected from the same participants during the lockdown period and once the restrictions were lifted. A total of 381 participants from the general population of Cyprus (alleged victims, perpetrators, and neither) took part during the lockdown period, while 117 of these participants completed the measures after the lockdown period. Results: Results indicated that psychological abuse experienced by alleged victims and carried out by alleged perpetrators was greater during the lockdown period than after this period. Across both time points, psychological and physical abuse victimisation and perpetration were predicted only by greater perceived stress, and only more positive psychological health predicted overall quality of life. Conclusions: Discussions of the findings centre on the support we found for increased reports of IPV during the lockdown measures. Finally, we also discuss sampling and methodological reasons for the reason some results were not in the direction expected.

Keywords: COVID-19 pandemic, Cyprus, intimate partner violence, perceived stress, quality of life

Introduction

The COVID-19 pandemic that first emerged in March 2020 resulted in massive physical and mental health difficulties, social changes and financial upheaval for most of the world's population.[5] COVID-19 has since spread rapidly, infecting more than

[1] Assistant Professor, School of Humanities and Social Sciences, University of Nicosia.
[2] School of Humanities and Social Sciences, University of Nicosia.
[3] School of Humanities and Social Sciences, University of Nicosia.
[4] School of Humanities and Social Sciences, University of Nicosia.

[5] Dan Li et al., 'Internet Use, Risk Awareness, and Demographic Characteristics Associated with Engagement in Preventive Behaviors and Testing: Cross-Sectional Survey on COVID-19 in the United States'

566,000,000 people to date and killing more than 6,000,000 people worldwide.[6] Social, economic, and interpersonal aspects of life were completely altered because of the pandemic and led to social communication changes, financial instability, high levels of stress, and difficulties in living conditions[7]. Studies have indicated that stress and quality of life have also been two of those factors significantly affected during the COVID-19 pandemic, possibly contributing to an increase in intimate partner violence (IPV).[8] The research study below will examine the presence of IPV during pandemic-related lockdown, and how IPV was impacted by the perceived stress and quality of life of the participants.

IPV During the COVID-19 Pandemic

The Istanbul Convention defines IPV as *'all acts of physical, sexual, psychological or economic violence that occur within the family or domestic unit, or between former or current spouses or partners, whether or not the perpetrator shares or has shared the same residence with the victim'*.[9] Earlier figures have estimated that about 25% of women across the world had, at some point during their lives, been physically or sexually abused by their partner.[10] However, and as recognised by the World Health Organization (WHO), the very restrictive measures enforced to deal with the COVID-19 pandemic (e.g., quarantine, isolation, and social distancing) could intensify the danger of violence against women.[11] Female victims of IPV often report being afraid to be alone with their abusive partner and are either forced into or choose to

(2020) 22(6) *Journal of medical Internet Research.*

[6] WHO (World Health Organization), *WHO Coronavirus (COVID-19) Dashboard* (2022), available at https://covid19.who.int/. Accessed 6 September 2022.

[7] Samantha K. Brooks et al., 'The Psychological Impact of Quarantine and How to Reduce it: Rapid Review of the Evidence' (2020) 395(10227) *The Lancet* 912

[8] Anders Carlander et al., 'COVID-19 Related Distress in the Swedish Population: Validation of the Swedish Version of the COVID Stress Scales (CSS)' (2022) 17(2) *PloS One*; Amir H. Pakpour, Mark D. Griffiths, Chung-Ying Lin, 'Assessing Psychological Response to the COVID-19: The Fear of COVID-19 Scale and the COVID Stress Scales' (2021) 19(6) *International Journal of Mental Health and Addiction* 2407.

[9] Council of Europe, *The Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence* (2014), available at https://www.refworld.org/docid/548165c94 [accessed 6 September 2022].

[10] WHO (World Health Organization), *Violence against women* (2017), available at https://www.who.int/news-room/fact-sheets/detail/violence-against-women [accessed 6 September, 2022].

[11] Li Duan, Gang Zhu, 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300; Emily A. Holmes et al., 'Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547.

be highly socially isolated because they are ashamed of what is happening, they fear what their partner will do to them or their children, and are generally afraid to tell anyone what is happening. The COVID-19 restrictive measures thus raised the risk of injury by having these victims spend more time at home with their abusive partner.[12]

The WHO found that emergency calls from women abused by their partner had increased by 60%.[13] Countries such as France, Italy, Spain, Argentina, USA, Brazil, and Cyprus, reported significant increases in domestic violence during the COVID-19 outbreak.[14] This notable increase in reports of IPV is worrying, particularly considering that victims are in danger of being killed by their partner or of choosing suicide. The danger of psychological disorders (e.g., anxiety, depression, eating disorders, post-traumatic stress disorder, and alcohol or substance abuse), physical diseases (e.g., chronic pelvic pain, sleep disorders, gastrointestinal and cardiovascular diseases), and other physical harm, also remains high.[15]

Past research has indicated that extreme periods of societal upheaval also tend to exacerbate problems already existing at home. For instance, couples with previous socioeconomic problems are at risk of having disagreements and feeling dissatisfied with each other.[16] Unemployment rates during the great recession in the USA in the years 2007-2009 were linked to more abusive behaviors by men.[17] Similarly, a rise in domestic violence contacts to the only nongovernmental domestic violence support

[12] WHO (World Health Organization), *Q&A: Violence Against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19 [accessed September, 2022].

[13] WHO (World Health Organization), *Mental Health and Psychosocial Considerations during the COVID-19 Outbreak* (2020a), available at https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf

[14] Ayesha S. Al Dhaheri et al., 'Impact of COVID-19 on Mental Health and Quality of Life: Is There Any Effect? A Cross-Sectional Study of the MENA Region' (2021) 16(3) *PloS one*; Association for the Prevention and Handling of Violence in the Family, *Statistics* (2021), available at https://domviolence.org.cy/statistika/. Accessed September, 2022.; Graham-Harrison et al, 'Lockdowns Around the World Bring Rise in Domestic Violence' (2020), *The Guardian*, available at https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence.

[15] Anant Kumar, 'COVID-19 and Domestic Violence: A Possible Public Health Crisis' (2020) 22(2) *Journal of Health Management* 192; Amber Peterman, Megan O'Donnell, *COVID-19 and Violence against Women and Children: A Third Research Round up for the 16 Days of Activism* (2020), available at https://covid19.alnap.org/system/files/content/resource/files/main/covid-and-violence-against-women-and-children-three.pdf.

[16] Julianne Holt-Lunstad, Timothy B. Smith, J. Bradley Layton, 'Social Relationships and Mortality Risk: A Meta-Analytic Review' (2010) 7(7) *PLoS Medicine*.

[17] Daniel Schneider, Kristen Harknett, Sara McLanahan, 'Intimate Partner Violence in the Great Recession' (2016) 53(2) *Demography* 471.

agency in Cyprus was positively correlated with fluctuations in unemployment registrations during the years 1996 and 2016.[18] Within these years, the economic crisis took hold in Cyprus, in 2011, with signs of recovery appearing in 2015. This study further supports the view that periods of intense national crises can lead to more incidents of domestic violence.[19]

IPV, Perceived Stress and the COVID-19 Pandemic

Liu et al. define perceived stress as the product of an individual's assessment as to whether a stressor is threatening or non-threatening and how well the individual can cope with such a situation.[20] The COVID-19 pandemic has led to significant stress in huge numbers of people.[21] The sudden onset of the virus, high levels of transmission, failure to find a cure and fear of the unknown, were key factors in the beginnings of perceived stress, anxiety and other mental health issues.[22] The pandemic influenced peoples' intellectual fitness, leading to a rise in anxiety, depression, and post-traumatic stress signs and symptoms (PTSS).[23] One in five participants in Italy had significant PTSS as a result of the COVID-19 pandemic, and these high PTSS were also predicted by low quality of life.[24]

The relationship between IPV and perceived stress has consistently been identified as significant. Specifically, psychosocial stressors, including financial difficulties, were likely to increase family strain leading to domestic violence.[25] Stress related to employment, unemployment and housing insecurity further increase the risk of vi-

[18] Marilena Kyriakidou et al., 'Longitudinal Fluctuations of National Help-Seeking Reports for Domestic Violence before, during, and after the Financial Crisis in Cyprus' (2021) 36(15-16) *Journal of Interpersonal Violence* 8333

[19] Ibid.

[20] Dan Liu et al., 'Psychological Impact and Predisposing Factors of the Coronavirus Disease 2019 (COVID-19) Pandemic on General Public in China' (2020) *SSRN Electronic Journal*.

[21] Yanping Bao et al., '2019-nCoV Epidemic: Address Mental Health Care to Empower Society' (2020) 395(10224) *The Lancet* 37.

[22] Jun Shigemura et al., 'Public Responses to the Novel 2019 Coronavirus (2019-nCoV) in Japan: Mental Health Consequences and Target Populations' (2020) 74(4) *Psychiatry and Clinical Neurosciences* 281.

[23] Md Zahir Ahmed et al., 'Epidemic of COVID-19 in China and Associated Psychological Problems' (2020) 51 *Asian Journal of Psychiatry.*

[24] Lorys Castelli et al., 'The Spread of COVID-19 in the Italian Population: Anxiety, Depression, and Post-Traumatic Stress Symptoms' (2020) 65(10) *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie* 731.

[25] Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

olence developing among the couple.[26] Meanwhile, the likelihood of IPV rises with increased stress related to parenting and the upbringing of children.[27] This can cause significant negative effects on both partners' physical and psychological health.[28] Financial difficulties and upheavals in parenting and domestic life have all been major effects of the pandemic and associated lockdown measures, thus leading to increased stress and more instances of IPV.

IPV, Quality of Life and the COVID-19 Pandemic

The WHO defines quality of life as *'an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns'*.[29] Their assessment tool for quality of life (the World Health Organization Quality of Life, WHOQOL) operationalises the definition by specifically measuring the individual's environment, physical and psychological health, and quality of social relationships. Below we will concentrate on aspects of people's lives that correspond to those identified by the WHO as significant in measuring quality of life. According to Mazza et al., the implementation of mandatory lockdowns and restrictions during the pandemic affected the general functioning and wellbeing of individuals due to the massive changes in their daily routine.[30] Brooks et al. confirm that quarantined individuals were expected to experience psychological distress more so than those who were not.[31] Past research has highlighted depression, symptoms of post-traumatic stress, irritability, insomnia and

[26] Deborah M. Capaldi et al., 'A Systematic Review of Risk Factors for Intimate Partner Violence' (2012) 3(2) *Partner Abuse* 231; Jana L. Jasinski, Nancy L. Asdigian, Glenda Kaufman Kantor, 'Ethnic Adaptations to Occupational Strain: Work-Related Stress, Drinking, and Wife Assault Among Anglo and Hispanic Husbands' (1997) 12(6) *Journal of Interpersonal Violence* 814.

[27] Janice C. Probst et al., 'Potentially Violent Disagreements and Parenting Stress among American Indian/Alaska Native Families: Analysis across Seven States' (2008) 12 *Maternal and Child Health Journal* 91.

[28] Christina J. Catabay et al., 'Perceived Stress and Mental Health: The Mediating Roles of Social Support and Resilience among Black Women Exposed to Sexual Violence' (2019) 259 *Journal of Affective Disorders* 143.

[29] WHO (World Health Organization), *WHOQOL: Measuring Quality of Life* (2012), available at https://www.who.int/tools/whoqol#:~:text=WHO%20defines%20Quality%20of%20Life,%2C%20expectations%2C%20standards%20and%20concerns.

[30] Cristina Mazza et al., 'Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors' (2020) 17(9) *International Journal of Environmental Research and Public Health* 3165.

[31] Samantha K. Brooks et al., 'The Psychological Impact of Quarantine and how to Reduce it: Rapid Review of the Evidence' (2020) 395(10227) *The Lancet* 912.

anger, as the main problems facing individuals who have been quarantined, whose movements have been restricted, or who have experienced social detachment. [32]

A survey of 7,005 citizens during the COVID-19 pandemic showed that 31% of all participants claimed their family income had been affected, while 39% said that their income had not yet been affected but they anticipated it to be in the future.[33] Past research has clearly indicated that wealth and a higher income are positively related to greater subjective wellbeing and higher quality of life.[34] It is within reason to expect, therefore, that quality of life may have declined during the pandemic as a result of the many social, health, employment and financial issues faced by people.

Women in Norway who reported experiencing IPV reported a lower quality of life than women who had not reported experiencing IPV.[35] Three cross-cultural studies from Iran, China and the USA have indicated similar findings; women who have experienced IPV tend to report low quality of life scores.[36]

Research has not directly measured whether IPV impacts the overall quality of life of individuals, but this can be investigated through markers of quality of life, like physical and mental health. The physical, emotional and psychological state of the

[32] Laura Hawryluck et al., 'SARS Control and Psychological Effects of Quarantine, Toronto, Canada' (2004) 10(7) *Emerging Infectious Diseases* 1206; Donna L. Reynolds et al., 'Understanding, Compliance and Psychological Impact of the SARS Quarantine Experience' (2008) 136(7) *Epidemiology and Infection* 997; Sing Lee et al., 'The Experience of SARS-Related Stigma at Amoy Gardens' (2005) 61(9) *Social Science & Medicine*, 2038; Zdravko Marjanovic, Esther R. Greenglass, Sue Coffey, 'The Relevance of Psychosocial Variables and Working Conditions in Predicting Nurses' Coping Strategies during the SARS Crisis: An Online Questionnaire Survey (2007) 44(6) *International Journal of Nursing Studies* 991.

[33] E Duffin, '*Opinion of Adults in G7 Countries of the Expected Impact of the COVID-19 Pandemic on their Household Income as of March 2020*' (2020), available at https://www.statista.com/statistics/1107322/covid-19-expected-impact-household-income-g7/

[34] Ed Diener, 'Subjective Well-Being' (1984) 95(3) *Psychological Bulletin* 542; Ed Diener, Carol Diener, 'The Wealth of Nations Revisited: Income and Quality of Life' (1995) 36(3) *Social Indicators Research* 2751995; Enzo Barberio Mariano, Daisy Aparecida do Nascimento Rebelatto, 'Transformation of Wealth Produced into Quality of Life: Analysis of the Social Efficiency of Nation-States with the DEA's Triple Index Approach' (2014) 65 *Journal of the Operational Research Society* 16642014; Jean-Luc Tavernier, Philippe Cuneo, Claire Plateau, 'Measurement of Quality of Life and Well-Being in France: The Drivers of Subjective Well-Being' (2014) 61(1) *The Review of Income and Wealth* 25.

[35] Kjersti Alsaker et al., 'Intimate Partner Violence Associated with Low Quality of Life - A Cross-Sectional Study' (2018) 18(1) *BMC Women's Health* 1.

[36] Gina Dillon et al., 'Mental and Physical Health and Intimate Partner Violence against Women: A Review of the Literature' (2013) 2013 *International Journal of Family Medicine;* Maryam Gharacheh et al., 'Domestic Violence during Pregnancy and Women's Health-Related Quality of Life' (2016) 8(2) *Global Journal of Health Science* 27; Zahra Tavoli et al., 'Quality of Life in Women who were Exposed to Domestic Violence during Pregnancy (2016) 16(1) *BMC Pregnancy and Childbirth* 1.

victim, their social status and their children's behaviour, are the main areas of the victim's life that are affected.[37] Migraines, heart attacks, high blood pressure and insomnia are some of the elementary physical symptoms, while, on a psychological and emotional level, sadness, hopelessness, stress, anxiety and fear are some of the most basic symptoms resulting from IPV that may affect the quality of life of the victims.[38] The abovementioned findings confirm that IPV can have a significant effect on both the psychological and the physical health of the victim, thus negatively influencing their overall quality of life.

Aim and Hypotheses

To the best of our knowledge, this is one of the first studies in Cyprus examining how the COVID-19 pandemic and resulting restrictions impacted IPV experiences, perceived stress and quality of life of alleged victims of IPV. We aim to combine these three constructs in an exploratory analysis, to shed light on how the lives of people were affected by these restrictive measures.

Based on the aims and objectives stated above, the following hypotheses will be considered:

(1) We expect more reports of IPV during the lockdown measures than when these measures are not in place.[39]

(2) Furthermore, perceived stress is likely to lead to more IPV during the lockdown measures than when they are not in place.[40]

---

[37] Eve Wittenberg et al., 'Measuring the Effect of Intimate Partner Violence on Health-Related Quality of Life: A Qualitative Focus Group Study' (2007) 5 *Health and Quality of Life Outcomes* 67.

[38] Eve Wittenberg et al., 'Measuring the Effect of Intimate Partner Violence on Health-Related Quality of Life: A Qualitative Focus Group Study' (2007) 5 *Health and Quality of Life Outcomes* 67.

[39] Ayesha S. Al Dhaheri et al., 'Impact of COVID-19 on Mental Health and Quality of Life: Is there any Effect? A cross-sectional study of the MENA region' (2021) 16(3) *PloS One*; Association for the Prevention and Handling of Violence in the Family, *Statistics* (2021), available at https://domviolence.org.cy/statistika/; Li Duan, Gang Zhu, 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300; Emily A. Holmes et al., 'Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547; Graham-Harrison et al, *Lockdowns around the World Bring Rise in Domestic Violence* (2020), available at https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence; WHO (World Health Organization), *Q&A: Violence against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19/; WHO (World Health Organization), *Mental Health and Psychosocial Considerations during the COVID-19 Outbreak* (2020a), available at https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf.

[40] Deborah M. Capaldi et al., 'A Systematic Review of Risk Factors for Intimate Partner Violence' (2012) 3(2) *Partner Abuse* 231; Christina J. Catabay et al., 'Perceived Stress and Mental Health: The Mediat-

(3) We also expect to see more reports of perceived stress during the lockdown measures than after they have been lifted.[41]

(4) We expect women to report more instances of IPV both during and after the lockdown measures.[42]

(5) Finally, we expect reports of IPV to predict a lower quality of life both during and after the lockdown measures.

(6) We expect participants to report lower quality of life during the lockdown measures than when they are not in place.[43]

---

ing Roles of Social Support and Resilience among Black Women Exposed to Sexual Violence' (2019) 259 *Journal of Affective Disorders* 143; Jana L. Jasinski, Nancy L. Asdigian, Glenda Kaufman Kantor, 'Ethnic Adaptations to Occupational Strain: Work-Related Stress, Drinking, and Wife Assault Among Anglo and Hispanic Husbands' (1997) 12(6) *Journal of Interpersonal Violence* 814; Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[41] Md Zahir Ahmed et al., 'Epidemic of COVID-19 in China and Associated Psychological Problems' (2020) 51 *Asian Journal of pPsychiatry;* Lorys Castelli et al., 'The Spread of COVID-19 in the Italian Population: Anxiety, Depression, and Post-Traumatic Stress Symptoms' (2020) 65(10) *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie* 731; Jun Shigemura et al., 'Public Responses to the Novel 2019 Coronavirus (2019-nCoV) in Japan: Mental Health Consequences and Target populations' (2020) 74(4) *Psychiatry and Clinical Neurosciences* 281.

[42] Li Duan, Gang Zhu, 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300; Emily A. Holmes et al., 'Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547; WHO (World Health Organization), *Violence against Women* (2017), available at https://www.who.int/news-room/fact-sheets/detail/violence-against-women; WHO (World Health Organization), *Q&A: Violence against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19/.

[43] Kjersti Alsaker et al., 'Intimate Partner Violence Associated with Low Quality of Life - a Cross-Sectional Study' (2018) 18(1) *BMC Women's Health* 1; Samantha K. Brooks et al., 'The Psychological Impact of Quarantine and how to Reduce it: Rapid Review of the Evidence' (2020) 395(10227) *The Lancet* 912; Gina Dillon et al., 'Mental and Physical Health and Intimate Partner Violence against Women: A Review of the Literature' (2013) 2013 *International Journal of Family Medicine;* Maryam Gharacheh et al., 'Domestic Violence during Pregnancy and Women's Health-Related Quality of Life (2016) 8(2) *Global Journal of Health Science* 27; Laura Hawryluck et al., 'SARS Control and Psychological Effects of Quarantine, Toronto, Canada' (2004) 10(7) *Emerging Infectious Diseases* 1206; Sing Lee et al., 'The Experience of SARS-Related Stigma at Amoy Gardens' (2005) 61(9) *Social Science & Medicine*, 2038; Zdravko Marjanovic, Esther R. Greenglass, Sue Coffey, 'The Relevance of Psychosocial Variables and Working Conditions in Predicting Nurses' Coping Strategies during the SARS Crisis: An Online Questionnaire Survey (2007) 44(6) *International Journal of Nursing Studies* 991; Cristina Mazza et al., 'Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors' (2020) 17(9) *International Journal of Environmental Research and Public Health* 3165; Donna L. Reynolds et al., 'Understanding, Compliance and Psychological Impact of the SARS Quarantine Experience' (2008) 136(7)

Method

A power analysis was carried out where an effect size of 0.50 and a $p = 0.05$ significance level for a repeated measures t-test indicated that to reach a power of 0.95, a minimum sample size of 45 was needed. For a multiple linear regression, a minimum number of 107 people was needed to reach a power of 0.95 with a moderate effect size (0.15) and a $p = 0.05$ significance level. The data gathered below come from a survey of self-reported experiences from a community sample of people in Cyprus.

Participants

This research study was carried out online with the selection criteria being above 18 years old and cohabiting with an intimate partner at the time of the research. Participants could either be married, in a relationship or a civil partnership, but the requirement was that they were living with their current partner.

During Lockdown:

The analyses were based on a total of 381 participants. The sample comprised of 288 females (76%) and 93 males (24%). Ages ranged from 18-79 years old across both time points (M=38.26, SD = 13.34). During this period, 198 people reported being married (52%), 157 people were in a relationship (41%) and 26 people were in a civil partnership (7%). Twenty-eight percent of participants (105 individuals) did not report any instances of psychological abuse perpetration. A similar number (112 participants, 29%) did not report ever being a victim of psychological abuse, 20% (78 out of 381 participants) did not report any instances of physical abuse perpetration, and 21% (82 out of 381 participants) did not report ever being a victim of physical abuse.

After Lockdown:

The analyses of this time period are based on data from 119 participants who chose to receive an invitation for the study at a later time and who agreed to take part. Data for the repeated measures analysis are based on 117 participants, as we were not able to match the data across both time points for two participants. The sample comprised 89 females (75%) and 30 males (25%), and the details for age as follows, M= 43.39, SD = 14.11. The sample after lockdown consisted of 73 married people (62%), 39 people cohabiting with their partner (33%), and 5 people in a civil partnership (4%).

Epidemiology and Infection 997; Zahra Tavoli et al., 'Quality of Life in Women who were Exposed to Domestic Violence during Pregnancy' (2016) 16(1) *BMC Pregnancy and Childbirth* 1

Materials

The Multidimensional Measure of Emotional Abuse (MMEA)[44]

The MMEA is a tool for measuring psychological aspects of IPV. A 10-point Likert Scale measures the number of times a specific type of emotional abuse has occurred, either by the participant or the partner. The MMEA consists of 56 statements (28 perpetration and 28 victimisation). Two variables were created for use in this study and they were named MMEA Victimisation and MMEA Perpetration. These two variables measure the same concepts, but the MMEA Victimisation variable refers to experiences of victimisation and the MMEA Perpetration variable refers to experiences of perpetration. These variables were created to allow us to differentiate between the experiences of the alleged victims and the perpetrators in the analysis. The MMEA has exhibited good reliability and is a statistically valid instrument.[45] Examples of items include 'You/your partner secretly searched through the other person's belongings' and 'You/your partner drove recklessly to frighten the other person'. The Greek MMEA displayed high alpha reliabilities of .82 for perpetration items and .94 for the victimisation items.

The Revised Conflict Tactics Scale Short Form (CTS2S)[46]

The CTS2S consists of 20 items and is the short form of the longer version of the CTS2[47]. The CTS2S is considered the most extensively used instrument for measuring IPV.[48] An 8-point Likert Scale is used in the CTS2 and measures how many times aspects of IPV have been used in a relationship. Participants record the frequency in which they themselves and their partners have engaged in these behaviours. Tactics measured when in conflict in a relationship are negotiation, physical assault, psychological aggression, injury from assault, and sexual coercion.[49] The CTS2 was considered the most appropriate tool for measuring physical aspects of IPV, as it has shown sufficient construct and concurrent validity.[50]

---

[44] Christopher M. Murphy, Sharon Anne Hoover, 'Measuring Emotional Abuse in Dating Relationships as a Multifactorial Construct' (1999) 14(1) *Violence and Victims* 39.

[45] Ibid.

[46] Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[47] Murray A. Straus et al., 'The Revised Conflict Tactics Scales (CTS2): Development and Preliminary Psychometric Data' (1996) 17(3) *Journal of Family Issues* 283.

[48] Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[49] Ibid.

[50] Ibid.

The CTS2S was scored using a total score of the scale by converting the scores to the midpoint of the range of scores in each category, and then summing these scores.[51] Thus, the analysis was based on a total score of physical abuse tactics as experienced by the participant (the variable named CTS2S_Victimisation) and a total score of physical abuse tactics as perpetrated by the participant (CTS2S_Perpetration). Calculating the CTS2S's reliability has been problematic, because of how it is scored and this is what we found in this study too.[52] Please see Table 1 for means, standard deviations and reliabilities of the measures used in this study. Example of items in the CTS2S include 'I pushed, shoved or slapped my partner/My partner pushed, shoved or slapped me' and 'I punched or kicked or beat up my partner/My partner punched or kicked or beat meup'.

The CTS2S and MMEA were not available in Greek and were translated for use. The translation-back-translation method was used whereby the measures were translated into Greek by a native speaker and then back translated into English to ensure the translations were accurate and reflective of the original versions. Any discrepancies were discussed and resolved amongst the translators. The Greek CTS2S displayed alpha reliabilities of .47 for the perpetration items and .40 for the victimisation items. The low alpha reliabilities of the Greek CTS2S seem to reflect the arguments above regarding the difficulty in demonstrating high reliabilities with these methods of scoring.[53]

Perceived Stress Scale (PSS)[54]

The PSS was originally developed as measure of an individual's perception of stress and has strong validity and reliability, including for its translated versions.[55] Items

[51] Murray A. Straus et al., 'The Revised Conflict Tactics Scales (CTS2): Development and Preliminary Psychometric Data' (1996) 17(3) *Journal of Family Issues* 283.

[52] Gina M. Sacchetti, Elizabeth K Lefler, 'ADHD Symptomology and Social Functioning in College Students' (2017) 21(2) *Journal of Attention Disorders* 1009; Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[53] Gina M. Sacchetti, Elizabeth K Lefler, 'ADHD Symptomology and Social Functioning in College Students' (2017) 21(2) *Journal of Attention Disorders* 1009; Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[54] Sheldon Cohen, 'Perceived Stress in a Probability Sample of the United States' in Shirlynn Spacapan, Stuart Oskamp (Eds.) *The Social Psychology of Health* (Sage Publications, Inc. 1988) 31.

[55] Christina Diane Bastianon et al., 'Perceived Stress Scale (PSS-10) Psychometric Properties in Migrants and Native Germans' (2020) 20 *BMC Psychiatry* 450; Robabe Khalili et al., 'Validity and Reliability of the Cohen 10-item Perceived Stress Scale in Patients with Chronic Headache: Persian Version' (2017) *26*

include 'In the last month, how often have you felt that things were going your way?' and 'In the last month, how often have you been angered because of things that were outside your control?'

The PSS has previously been translated and validated for use in Greek.[56] The alpha reliability for the Greek version was previously found to be high at .82 and correlated significantly with other measures of stress, depression and anxiety.[57] The 10-item measure in Greek was used here and our data yielded a good alpha reliability of .84.

WHO Quality of Life – BREF (WHOQOL-BREF)[58]

The WHOQOL-BREF, a short version of the WHOQOL–100, has been developed to assess an individual's quality of life. The WHOQOL-BREF comprises 26 items on a 5-point Likert Scale and produces a profile of the individual's quality of life based on total scores of four subscales: Physical health, Psychological health, Social relationships, and Environment. To minimise the complexity of the analysis, the subscales deemed most relevant to our research, and thus used in the analysis, were psychological quality of life (QoL Psychological health) and quality of social relationships (QoL Social relationships). An additional single item of the WHOQOL-BREF measuring their overall perception of quality of life was also used in the analysis (QoL). The WHOQOL-BREF has been extensively used in research worldwide and has displayed good reliability and validity.[59] Examples of items include 'How much do you enjoy life?' and 'How satisfied are you with your personal relationships?'

Asian Journal of Psychiatry 136; John M. Taylor, 'Psychometric Analysis of the Ten-Item Perceived Stress Scale' (2014) 27(1) *Psychological Assessment* 90.

[56] Eleni Andreou et al., 'Perceived Stress Scale: Reliability and Validity Study in Greece'(2011) 8(8) *International Journal of Environmental Research and Public Health* 3287.

[57] Ibid.

[58] WHO (World Health Organization), *WHOQOL-BREF:Introduction, Administration, Scoring and Generic Version of the Assessment: Field Trial Version, December 1996* (1996), available at https://apps.who.int/iris/handle/10665/63529

[59] Marcelo P. A. Fleck et al., 'Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-bref"' [Application of the Portuguese version of the abbreviated instrument of quality life "WHOQOL-bref"]' (2020) 34(2) *Revista de Saúde Pública* 178; Fredrick Dermawan Purba et al., 'Quality of Life of the Indonesian General Population: Test-Retest Reliability and Population Norms of the EQ-5D-5L and WHOQOL-BREF' (2018) 13(5) *PLoS One*; Helena Rosén, Gerd Ahlström, Annika Lexén, 'Psychometric Properties of the WHOQOL-BREF among Next of Kin to Older Persons in Nursing Homes' (2020) 18 *Health and Quality of Life Outcomes* 103; Suzanne Skevington et al., 'The World Health Organization's WHOQOL-BREF Quality of Life Assessment: Psychometric Properties and Results of the International Field Trial. A Report from the WHOQOL Group' (2004) 13(2) *Qualitative Life Research* 299.

The WHOQOL-BREF in Greek, as validated by Ginieri-Coccosis et al. was used here.[60] In their study, the 26-item measure displayed good Cronbach's alpha reliabilities (.87 for overall QoL; .79 for psychological health; .65 for social relationships). Our corresponding Cronbach's alpha reliabilities for the Greek version were also high at .84 for psychological health and .72 for social relationships. Finally, data from the English and Greek measures were merged to produce a single dataset for both time points.

Table 1. *Descriptive statistics for all variables across both time points*

	Mean	Std. Deviation	Reliability
Time 1			
MMEA Perpetration I	10.75	16.24	.87
MMEA Victimisation I	13.65	26.79	.93
CTS2S Perpetration I	10.05	13.31	.52
CTS2S Victimisation I	9.43	13.07	.58
PSS I	17.92	8.98	.89
QoL Psychological I	14.20	3.47	.86
QoL Social relationships I	14.80	3.72	.70
Time 2			
MMEA Perpetration II	16.88	26.74	.83
MMEA Victimisation II	22.70	52.28	.96
CTS2S Perpetration II	10.09	12.70	.47
CTS2S Victimisation II	9.59	12.87	.43
PSS II	17.87	8.54	.88
QoL Psychological II	14.42	3.37	.85
QoL Social relationships II	14.77	3.59	.70

Note: MMEA - Multidimensional Measure of Emotional Abuse;
CTS2S - Revised Conflict Tactics Scale short form; PSS - Perceived Stress Scale;
WHOQOL-BREF - WHO Quality of life – BREF

Context of Study

Measures enforced during the three-month period of the first lockdown included closed schools employing online teaching, work from home, closure of airports and cancellation of flights into and out of Cyprus except for repatriation purposes, a curfew, closure of public gathering places (parks, playgrounds), prohibition of attendance to places of worship, suspension of retail businesses, and movement allowed only for

[60] Maria Ginieri-Coccosis et al., 'Psychometric Properties of WHOQOL-BREF in Clinical and Health Greek Populations: Incorporating New Culture-Relevant Items' (2012) 23(2) *Psychiatriki* 130.

transfer to and from the workplace, visits to a doctor, pharmacy or bank, purchase of basic necessities (e.g., from supermarkets), and for physical exercise. Following the final phase of the easing of the restrictions in June 2020, the only measures in place remained the mandatory use of masks and limits to the number of people allowed in closed spaces.[61]

Procedure

The study was carried out in two phases; during the first lockdown (27/4/2020-14/5/2020) and after the removal of most of the COVID-19 restriction measures (9/9/2020-18/10/2020). The main communication channels used to reach participants were social media (Facebook and Instagram), through the mailing lists of NGOs active in the area of domestic violence and abuse, and personal contacts. Reaching alleged victims and perpetrators of IPV was a concern of ours, so we also chose purposive sampling through NGOs. Relevant NGOs were asked to assist in the recruitment of participants, in the hopes that we could reach a satisfactory number of participants.

All participants in both phases of the study completed four psychometric questionnaires and provided demographic data for gender, age and their relationship status. Two versions of the questionnaires were made available to the participants (English and Greek) and they were able to choose which one to complete. Both versions were identical in their content and formatting. The participants provided consent and were debriefed regarding the aims of the study. Participants were reminded that their participation was voluntary, all data would be anonymous, and they were free to end their participation at any time by closing their browser window. Participants could also contact the researchers at a later point and ask to remove their data by quoting their unique identifier. During the first phase of the study, participants could provide their email address if they wanted to take part in a future wave of this study. Their unique identifier would be used to match their data across both time points. Ethical approval was given to this research study by the Cyprus National Bioethics Committee.

[61] *Cyprus Mail*, 'Coronavirus: Timeline of the Covid-19 Outbreak in Cyprus' (2020) available from https://cyprus-mail.com/2020/12/30/coronavirus-timeline-of-the-covid-19-outbreak-in-cyprus/.; FRA (European Union Agency for Fundamental Rights), *'Coronavirus COVID-19 Outbreak in the EU Fundamental Rights Implications'* (2020) available from https://fra.europa.eu/sites/default/files/fra_uploads/cyprus-report-covid-19-april-2020_en.pdf.

Statistical Analysis

Analyses were carried out using SPSS 21.0 (SPSS Inc.) for Windows. The first analyses tested for reliability and normal distribution. Spearman's Rho correlations were then carried out to test for associations between the CTS2S, MMEA, PSS and WHO-QOL-BREF and to establish the relationships between the variables across both times. Differences in the test scores during and after lockdown were investigated using a Wilcoxon Signed Ranks test. Finally, regressions were observed to determine how the variables of interest can be predicted.

Results

Preliminary Analyses

Z-scores indicated that across both time groups' age, MMEA_Perpetration, MMEA_Victimisation, CTS2S_Perpetration and CTS2S_Victimisation were positively skewed, whereas QofL, QofL_Psychological and QofL_Social relationships were negatively skewed, thus indicating a non-normal distribution. Following square root and log transformation, the data remained skewed so non-parametric tests were used where appropriate and ranked outcome data were used for regressions.

Correlations between Variables of Interest for Each Time Period

During Lockdown:

Tables 2 and 3 show the Spearman's Rho correlations for the variables in the analysis. The MMEA (both victimisation and perpetration total scores) was positively correlated with the CTS2S (both victimisation and perpetration total scores) and perceived stress, and negatively correlated with overall quality of life, quality of social relationships and quality of psychological health. MMEA perpetration scores were positively correlated with MMEA victimisation scores. The CTS2S (both victimisation and perpetration total scores) was positively correlated with perceived stress, and negatively correlated with overall quality of life, quality of psychological health and quality of social relationships. CTS2S victimisation scores positively correlated with CTS2S perpetration scores.

Perceived stress was negatively correlated with overall quality of life, quality of social relationships and quality of psychological health. Significant positive correlations were present amongst all three quality of life variables. All variables at this phase had significant positive correlations with their counterparts at the next phase.

After Lockdown:

The MMEA (both victimisation and perpetration total scores) was positively correlated with the CTS2S (both victimisation and perpetration total scores) and perceived stress, and negatively correlated with overall quality of life, quality of social relationships and quality of psychological health. MMEA perpetration scores were positively correlated with MMEA victimisation scores. The CTS2S (both victimisation and perpetration total scores) was positively correlated with perceived stress and negatively correlated with quality of psychological health. CTS2S perpetration scores were negatively correlated with quality of social relationships. CTS2S victimisation scores were positively correlated with RCTS perpetration scores.

Perceived stress was negatively correlated with overall quality of life, quality of social relationships and quality of psychological health. Significant positive correlations were present amongst all three quality of life variables.

Table 2. *Spearman's correlations between variables subsequently used in regressions*

	MMEA Victimisation	CTS2S Perpetration	CTS2S Victimisation	PSS	QoL	QoL Psychological	QoL Social Relationships
Time 1							
MMEA Perpetration	.86**	.45**	.48**	.43**	-.25**	-.33**	-.27**
MMEA Victimisation		.46**	.48**	.38**	-.30**	-.31**	-.30**
CTS2S Perpetration			.92**	.30**	-.20**	-.22**	-.16**
CTS2S Victimisation				.28**	-.20**	-.23**	-.14**
PSS					-.50**	-.67**	-.35**
QoL						.57**	.40**
QoL Psychological							.54**
Time 2							
MMEA Perpetration	.91**	.49**	.42**	.42**	-.21*	-.36**	-.38**
MMEA Victimisation		.49**	.43**	.45**	-.27**	-.38**	-.42**
CTS2S Perpetration			.94**	.36**	-.09	-.30**	-.23*
CTS2S Victimisation				.36**	-.10	-.29**	-.14
PSS					-.40**	-.73**	-.38**
QoL						.50**	.32**
QoL Psychological							.58**

Note: * $p<.05$, ** $p<.01$; MMEA - Multidimensional Measure of Emotional Abuse; CTS2S - Revised Conflict Tactics Scale short form; PSS - Perceived Stress Scale; WHOQOL-BREF - WHO Quality of life – BREF

Table 3. *Spearman's correlations between the variables across both times*

	MMEA Perpetration II	MMEA Victimisation II	CTS2S Perpetration II	CTS2S Victimisation II	PSS II	QoL II	QoL Psychological II	QoL Social Relationships II
MMEA Perpetration I	.46**							
MMEA Victimisation I		.47**						
CTS2S Perpetration I			.29**					
CTS2S Victimisation I				.28**				
PSS I					.63**			
QoL I						.50**		
QoL Psychological I							.78**	
QoL Social Relationships I								.77**

Note: * p <.05;** p <.01; MMEA - Multidimensional Measure of Emotional Abuse; CTS2S - Revised Conflict Tactics Scale short form; PSS - Perceived Stress Scale; WHOQOL-BREF - WHO Quality of life – BREF

Differences between Time Points

Significant differences in scores on our variables during and after lockdown were determined through a Wilcoxon Signed Ranks test. Differences were only found between the MMEA victimisation and MMEA perpetration scores across both time points. Higher scores for MMEA perpetration were present during lockdown (mean rank = 51.66) than after lockdown (mean rank = 44.69) (Z = -2.60, p<.01), with the same being true for MMEA victimisation scores (during lockdown mean rank = 51.27; after lockdown mean rank = 42.18) (Z = -2.22, p <.05). All other differences were nonsignificant. These results indicate that participants reported significantly more victimisation and perpetration of psychological abuse during lockdown than after lockdown. An exploratory Mann-Whitney test of the gender differences related to IPV indicated that women reported higher scores on the CTS2S victimisation measure (U=11274.50, p<.05) during lockdown. There were no gender differences after lockdown.

Regressions

Multiple regression models tested whether each form of abuse (for both the alleged victim and the perpetrator) can be predicted by perceived stress and gender, in line with hypotheses 2 and 4 above. Subsequent regressions tested whether overall quality of life can be predicted by psychological and physical abuse and the quality of social relations and psychological health (hypotheses 5 and 6). These analyses were carried

out separately for data during lockdown and after lockdown. Please see tables 4 and 5 for the details of the regression analyses.

During Lockdown:

Only greater perceived stress predicted perpetration and victimisation of both psychology (MMEA) and physical (CTS2S) abuse. Overall quality of life was predicted only by better quality of psychological health and better quality of social relationships.

After Lockdown:

Only greater perceived stress predicted perpetration and victimisation of both psychology (MMEA) and physical (CTS2S) abuse. Overall quality of life was predicted only by better quality of psychological health. Gender was a nonsignificant predictor in all regression analyses.

Table 4. Multiple linear regressions at Time 1 (N = 381)

Predictors	B	SE B	β
Outcome variable: MMEA Perpetration			
PSS	-5.15	0.57	-0.42***
Gender	-0.11	11.94	0.00
R^2		.18	
F		41.50***	
Outcome variable: MMEA Victimisation			
PSS	-4.65	0.58	-0.38***
Gender	9.30	12.17	0.04
R^2		.14	
F		31.87***	
Outcome variable: CTS2S Perpetration			
PSS	-3.54	0.61	-0.29***
Gender	-13.64	12.64	-0.05
R^2		.10	
F		19.08***	
Outcome variable: CTS2S Victimisation			
PSS	-3.25	0.61	-0.27***
Gender	-19.48	12.69	-0.08
R^2		.08	
F		17.15***	
Outcome variable: QoL			
MMEA Perpetration	-0.09	0.21	-0.03
MMEA Victimisation	0.22	0.14	0.11

CTS2S Victimisation	-0.23	0.63	-0.04
CTS2S Perpetration	0.48	0.64	0.08
QoL Psychological health	-14.34	1.58	-0.47***
QoL Social relationships	-3.26	1.49	-0.11*
R^2		.33	
F		31.00***	

Note: * $p < .05$ ** $p < .01$ *** $p < .001$; MMEA - Multidimensional Measure of Emotional Abuse; CTS2S - Revised Conflict Tactics Scale short form; PSS - Perceived Stress Scale; WHOQOL-BREF - WHO Quality of life – BREF

Table 5. Multiple linear regressions at Time 2 (N = 119)

Predictors	B	SE B	β
Outcome variable: MMEA Perpetration			
PSS	-1.66	0.35	-0.42***
Gender	2.14	6.89	0.03
R^2		.17	
F		11.84***	
Outcome variable: MMEA Victimisation			
PSS	-1.80	0.34	-0.46***
Gender	4.01	6.74	0.05
R^2		.20	
F		14.23***	
Outcome variable: CTS2S Perpetration			
PSS	-1.41	0.36	-0.35**
Gender	-1.16	7.12	-0.02
R^2		.13	
F		8.41***	
Outcome variable: CTS2S Victimisation			
Gender	-2.03	7.14	-0.03
PSS	-1.36	0.36	-0.34***
R^2		.12	
F		7.95***	
Outcome variable: QoL			
MMEA Perpetration	-0.09	0.12	-0.08
MMEA Victimisation	0.11	0.05	0.22
CTS2S Victimisation	0.65	0.50	0.27
CTS2S Perpetration	-0.69	0.50	-0.29
QoL Psychological health	-14.35	1.00	-0.39***

QoL Social relationships	-0.71	0.95	-0.08
R^2		.27	
F		6.77***	

Note: * $p < .05$ ** $p < .01$ *** $p < .001$; MMEA - Multidimensional Measure of Emotional Abuse; CTS2S - Revised Conflict Tactics Scale short form; PSS - Perceived Stress Scale; WHOQOL-BREF - WHO Quality of life – BREF

Discussion

Key findings showed that levels of psychological abuse, indicated by alleged victims and carried out by perpetrators, were higher during the lockdown period than after the lockdown. Specifically, women reported more physical abuse victimisation during lockdown. We also found that, across both time points, psychological and physical abuse victimisation and perpetration were predicted only by greater perceived stress, and overall quality of life was predicted only by more positive psychological health. After the lockdown, overall quality of life was predicted only by more positive psychological health.

The suggested outcomes that psychological abuse victimisation and perpetration were greater during the lockdown period supports our hypothesis. Our outcomes also support past research from the Middle East and North Africa region, China and the UK, indicating that cases of psychological IPV increased during the lockdown period.[62] It would appear that increases in IPV were a global phenomenon during the lockdown, pointing to universal factors contributing to the rise of such behaviours. Seeing as IPV victimisation and perpetration were predicted by greater perceived stress both during and after lockdown, we may make a tentative suggestion that stress should be examined as a possible universal factor in contributing to IPV.

[62] Ayesha S. Al Dhaheri et al., 'Impact of COVID-19 on Mental Health and Quality of Life: Is there any Effect? A Cross-Sectional Study of the MENA Region' (2021) 16(3) *PloS One*; Association for the Prevention and Handling of Violence in the Family, *Statistics* (2021), available at https://domviolence.org.cy/statistika/; Li Duan, Gang Zhu, 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300; Emily A. Holmes et al., 'Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547; Graham-Harrison et al, *Lockdowns around the World Bring Rise in Domestic Violence* (2020), available at https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence; WHO (World Health Organization), *Mental Health and Psychosocial Considerations during the COVID-19 Outbreak* (2020a), available at https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf; WHO (World Health Organization), *Q&A: Violence against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19/.

We have also found partial support for the fact that women tend to be the victims of this form of violence.[63] Our results indicated more reports by women of physical abuse victimisation during the lockdown, but no gender differences in physical abuse perpetration and psychological abuse victimisation. It may be that the impact of the lockdown was felt equally by both men and women, leading to more instances of psychological abuse victimisation and perpetration by both males and females. On the other hand, the alleged victims of physical abuse were mostly women, but only during the extreme circumstances of the lockdown period. The uneven distribution of males and females in the sample may also have contributed to the inconsistencies of the gender-related results. With a more equal distribution of men and women we could have come to more firm conclusions regarding the reliability of gender differences in the data.

Our hypothesis that participants would have a lower quality of life during the lockdown was not met here and contradicts past research.[64] A possible reason may be that the data was collected early in the first lockdown, before people fully experienced its longterm effects. If data were collected later in the pandemic, our hypothesis might have been confirmed. We also did not find greater perceived stress in our participants during the lockdown, as compared to afterwards. Once again, this is surprising considering the wealth of research suggesting otherwise.[65] The feeling of stress fluctuates

[63] Li Duan, Gang Zhu, 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300; Emily A. Holmes et al., 'Multidisciplinary Research priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547; WHO (World Health Organization), *Violence against Women* (2017), available at https://www.who.int/news-room/fact-sheets/detail/violence-against-women; WHO (World Health Organization), *Q&A: Violence against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19/.

[64] Samantha K. Brooks et al., 'The Psychological Impact of Quarantine and how to Reduce it: Rapid Review of the Evidence' (2020) 395(10227) *The Lancet* 912; Laura Hawryluck et al., 'SARS Control and Psychological Effects of Quarantine, Toronto, Canada' (2004) 10(7) *Emerging Infectious Diseases* 1206; Sing Lee et al., 'The Experience of SARS-Related Stigma at Amoy Gardens' (2005) 61(9) *Social Science & Medicine*, 2038; Zdravko Marjanovic, Esther R. Greenglass, Sue Coffey, 'The Relevance of Psychosocial Variables and Working Conditions in Predicting Nurses' Coping Strategies during the SARS Crisis: An Online Questionnaire Survey (2007) 44(6) *International Journal of Nursing Studies* 991; Cristina Mazza et al., 'Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors' (2020) 17(9) *International Journal of Environmental Research and Public Health* 3165; Donna L. Reynolds et al., 'Understanding, Compliance and Psychological Impact of the SARS Quarantine Experience' (2008) 136(7) *Epidemiology and Infection,* 997.

[65] Md Zahir Ahmed et al., 'Epidemic of COVID-19 in China and Associated Psychological Problems' (2020) 51 *Asian Journal of Psychiatry;* Lorys Castelli et al., 'The Spread of COVID-19 in the Italian Population: Anxiety, Depression, and Post-Traumatic Stress Symptoms' (2020) 65(10) *Canadian Journal of*

more in magnitude and frequency in the individual than the perception of quality of life, so it is surprising that no differences were found here. We would have expected that lockdown measures, which at the time were a new experience for most people, would have led to a spike in perceived stress. One final suggestion for our finding relates to the massive media campaign concerning the risks of infection and the spread of fear and panic. Particularly at the beginning of the pandemic with the first lockdown, confinement may have led to reduced perceived stress levels, as confinement was perceived as the main protection measure.

Our finding that greater perceived stress can predict perpetration and victimisation of both psychological abuse and physical abuse, supports our hypotheses and previous findings.[66] We specifically expected this finding to be more prevalent during the lockdown measures due to the extreme circumstances of this period, but seeing as this finding was present across both time points we could tentatively argue that perceived stress is an overarching factor that contributes to IPV despite the presence of other environmental factors. Studies mentioned above discuss financial and employment stress, and comorbidity with depression and PTSD in instances of IPV. Our study here supports the above on a more general level, but without being able to identify the specific form of stress that is implicated in our Cyprus sample.

The finding that reports of IPV do not predict the quality of life of the participants was unexpected and does not support our hypotheses or past research.[67] Reports of IPV were admittedly very low in our study (M=16.75 of a total score of 441 for

Psychiatry. Revue Canadienne de Psychiatrie 731; Jun Shigemura et al., 'Public Responses to the Novel 2019 Coronavirus (2019-nCoV) in Japan: Mental Health Consequences and Target Populations' (2020) 74(4) *Psychiatry and Clinical Neurosciences* 281.

[66] Deborah M. Capaldi et al., 'A Systematic Review of Risk Factors for Intimate Partner Violence' (2012) 3(2) *Partner Abuse* 231; Christina J. Catabay et al., 'Perceived Stress and Mental Health: The Mediating Roles of Social Support and Resilience among Black Women Exposed to Sexual Violence' (2019) 259 *Journal of Affective Disorders* 143; Jana L. Jasinski, Nancy L. Asdigian, Glenda Kaufman Kantor, 'Ethnic Adaptations to Occupational Strain: Work-Related Stress, Drinking, and Wife Assault Among Anglo and Hispanic Husbands' (1997) 12(6) *Journal of Interpersonal Violence* 814; Murray A Strauss, Emily M. Douglas, 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507.

[67] Kjersti Alsaker et al., 'Intimate Partner Violence Associated with Low Quality of Life - A Cross-Sectional Study' (2018) 18(1) *BMC Women's Health* 1; Gina Dillon et al., 'Mental and Physical Health and Intimate Partner Violence against Women: A Review of the Literature (2013) 2013 *International Journal of Family Medicine;* Maryam Gharacheh et al., 'Domestic Violence during Pregnancy and Women's Health-Related Quality of Life (2016) 8(2) *Global Journal of Health Science* 27; Zahra Tavoli et al., 'Quality of Life in Women who were Exposed to Domestic Violence during Pregnancy (2016) 16(1) *BMC Pregnancy and Childbirth* 1.

MMEA victimisation and *M*=12.15 of a total score of 137 for RCTS victimisation) and this may be the reason for nonsignificant findings.

Limitations

One significant flaw is the unequal numbers of males and females in the sample. Considering women are more frequently the victims of IPV,[68] it is understandable that a research study of this nature will appeal to women more than to men. This unequal distribution, however, has not allowed us to reliably argue for the presence of gender differences in the results above. Furthermore, we were not able to capture the phenomenon of IPV during the pandemic adequately, as we only had few reports of such behaviours. This, on the one hand, is positive, as most of our participants seemed to be in healthier relationships. On the other hand, a low base rate of these variables has made it very difficult to show statistically that an increase in IPV has come about from the expected relationships.

One final limitation of this study may be the very environment in which the data was collected. This may have had an impact on the truthfulness of the answers and the honesty of the participants. This study asked questions on IPV during a time where alleged victim and abuser were spending unusually large amounts of time in the same space. If the abuser was near the alleged victim when answering the questionnaire, it is likely the answers would have been more favourable towards the abuser and the relationship. It is possible that the abuser may have even guided the participant as to what answers to give. This is a drawback of data collection during the lockdown period, as privacy was limited. Similarly, our study suffers from the same limitation as all other self-report surveys; we cannot be sure of the truthfulness of the data as a whole.

Suggestions for future research centre primarily on methodological issues. To come to reliable conclusions regarding the findings, a larger and more balanced sample is needed. Future research could also utilise the MMEA and RCTS measures in an exploration of the above constructs in perpetrators of IPV. The focus tends to be on identifying the needs of victims; identifying the needs of perpetrators would further improve services offered to them and assist with rebuilding their interpersonal skills in more positive ways.

[68] WHO (World Health Organization), *Violence against Women* (2017), available at https://www.who.int/news-room/fact-sheets/detail/violence-against-women; WHO (World Health Organization), *Q&A: Violence against Women during COVID-19* (2020b), available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19/.

This study aimed to highlight the difficulties faced by alleged victims of IPV during the COVID-19 pandemic. Our key results indicated that alleged victims reported more psychological abuse during the lockdown period and that psychological and physical abuse could be predicted by greater perceived stress both during and after the lockdown period. The authorities and relevant organisations may use this data to target stress in prevention, support and treatment of victims and perpetrators of IPV. Furthermore, changes in living arrangements might be another factor that organisations assisting victims of IPV should keep track of, in order to provide an appropriate level of assistance. This study suffers from a number of issues that have made the interpretation of our results more difficult, but we believe that our support for previous findings lends weight to the reliability of ours. Future research employing stricter methodological criteria could provide support for our findings and offer concrete guidelines on how to effectively support these individuals.

Statements and Declarations

Acknowledgements: Not applicable

No funding was received for conducting this study.

The authors have no competing interests to declare that are relevant to the content of this article.

Informed consent was obtained from all individual participants included in the study.

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Approval for this study was obtained from the Cyprus National Bioethics Committee. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

References

Ahmed, M. Z., Ahmed, O., Aibao, Z., Hanbin, S., Siyu, L., Ahmad, A., 'Epidemic of COVID-19 in China and Associated Psychological Problems' (2020) 51 *Asian Journal of Psychiatry*. DOI: 10.1016/j.ajp.2020.102092.

Al Dhaheri, A. S., Bataineh, M. A. F., Mohamad, M. N., Ajab, A., Al Marzouqi, A., Jarrar, A. H., Cheikh Ismail, L., 'Impact of COVID-19 on Mental Health and Quality of Life: Is There Any Effect? A Cross-Sectional Study of the MENA Region' (2021) 16(3) *PloS One*. DOI: 10.1371/journal.pone.0249107.

Alsaker, K., Moen, B. E., Morken, T., Baste, V., 'Intimate Partner Violence Associated with Low Quality of Life - A Cross-Sectional Study' (2018) 18(1) *BMC Women's Health*. DOI: 10.1186/s12905-018-0638-5.

Andreou, E., Alexopoulos, E.C., Lionis, C., Varvogli, L., Gnardellis, C., Chrousos, G.P., Darviri, C., 'Perceived Stress Scale: Reliability and Validity Study in Greece' (2011) 8(8) *International Journal of Environmental Research and Public Health* 3287-3298.

Association for the Prevention and Handling of Violence in the Family, *Statistics* (2021), available at https://domviolence.org.cy/statistika/. [accessed 6 September 2022].

Bao, Y., Sun, Y., Meng, S., Shi, J., Lu, L., '2019-nCoV Epidemic: Address Mental Health Care to Empower Society' (2020) 395(10224) *The Lancet* e37-e38.

Bastianon, C.D., Klein, E.M., Tibubos, A.N., Brahler, E., Beutel, M. E., Petrowski, K., 'Perceived Stress Scale (PSS-10) Psychometric Properties in Migrants and Native Germans' (2020) 20 *BMC Psychiatry* 450. DOI: 10.1186/s12888-020-02851-2.

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., Rubin, G. J., 'The Psychological Impact of Quarantine and How to Reduce it: R apid Review of the Evidence' (2020) 395(10227) *The Lancet* 912-920.

Capaldi, D. M., Knoble, N. B., Shortt, J. W., Kim, H. K., 'A Systematic Review of Risk Factors for Intimate Partner Violence' (2012) 3(2) *Partner Abuse* 231-280.

Carlander, A., Lekander, M., Asmundson, G. J. G., Taylor, S., Olofsson Bagge, R., Lindqvist Bagge, A.-S., 'COVID-19 Related Distress in the Swedish Population: Validation of the Swedish Version of the COVID Stress Scales (CSS)' (2022) 17(2) *PloS One*0263888.

Castelli, L., Di Tella, M., Benfante, A., Romeo, A., 'The Spread of COVID-19 in the Italian Population: Anxiety, Depression, and Post-Traumatic Stress Symptoms' (2020) 65(10) *Canadian Journal of Psychiatry. Revue Canadienne de Psychiatrie* 731. DOI: 10.1177/0706743720938598.

Catabay, C. J., Stockman, J. K., Campbell, J. C., Tsuyuki, K., 'Perceived Stress and Mental Health: The Mediating Roles of Social Support and Resilience among Black Women Exposed to Sexual Violence' (2019) 259 *Journal of Affective Disorders* 143-149.

Cohen, S., 'Perceived Stress in a Probability Sample of the United States' in Shirlynn Spacapan, Stuart Oskamp (Eds.) *The Social Psychology of Health* (Sage Publications, Inc. 1988) 31-67.

Council of Europe '*The Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence'* (2014), available at https://www.refworld.org/docid/548165c94 [accessed 6 September 2022].

'Coronavirus: Timeline of the Covid-19 outbreak in Cyprus', *Cyprus Mail* (2020), available at https://cyprus-mail.com/2020/12/30/coronavirus-timeline-of-the-covid-19-outbreak-in-cyprus/ [accessed 6 September 2022].

Diener, E., 'Subjective Well-Being' (1984) 95(3) *Psychological Bulletin* 542-575.

Diener, E., Diener, C., 'The Wealth of Nations Revisited: Income and Quality of Life' (1995) 36(3) *Social Indicators Research* 275-286.

Dillon, G., Hussain, R., Loxton, D., Rahman, S., 'Mental and Physical Health and Intimate Partner Violence against Women: A Review of the Literature' (2013) *International Journal of Family Medicine*. DOI: 10.1155/2013/313909.

Duan, L., Zhu, G., 'Psychological Interventions for People Affected by the COVID- 19 Epidemic' (2020) 7(4) *The Lancet Psychiatry* 300-302.

Duffin, E., '*Opinion of Adults in G7 Countries of the Expected Impact of the COVID-19 Pandemic on their Household Income as of March 2020'* (2020), available at https://www.statista.com/statistics/1107322/covid-19-expected-impact-household-income-g7/ [accessed 6 September 2022].

Fleck, M.P., Louzada, S., Xavier, M., Chachamovich, E., Vieira, G., Santos, L., Pinzon, V., 'Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-bref" [Application of the Portuguese version of the abbreviated instrument of quality life WHOQOL-bref]' (2020) 34(2) *Revista de Saúde Pública* 178-183 Portuguese. DOI: 10.1590/s0034-89102000000200012.

FRA (European Union Agency for Fundamental Rights), *Coronavirus COVID-19 Outbreak in the EU Fundamental Rights Implications* (2020) Available at https://fra.europa.eu/sites/default/files/fra_uploads/cyprus-report-covid-19-april-2020_en.pdf.

Gharacheh, M., Azadi, S., Mohammadi, N., Montazeri, S., Khalajinia, Z., 'Domestic Violence during Pregnancy and Women's Health-Related Quality of Life' (2016) 8(2) *Global Journal of Health Science* 27. DOI: 10.5539/gjhs.v8n2p27.

Ginieri-Coccossis, M., Triantafillou, E., Tomaras, V., Soldatos, C., Mavreas,.V., Christodoulou, G., 'Psychometric Properties of WHOQOL-BREF in Clinical and Health Greek Populations: Incorporating New Culture-Relevant Items' (2012) 23(2) *Psychiatriki* 130-142.

Graham-Harrison, E., Giuffrida, A., Smith, H. Ford, L., 'Lockdowns around the World Bring Rise in Domestic Violence' (2020) *The Guardian*, available at https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence [accessed 6 September 2022].

Hawryluck, L., Gold, W. L., Robinson, S., Pogorski, S., Galea, S., Styra, R., 'SARS Control and Psychological Effects of Quarantine, Toronto, Canada' (2004) 10(7) *Emerging Infectious Diseases* 1206-1212. DOI: 10.3201/eid1007.030703.

Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Bullmore, E., 'Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science' (2020) 7 *Lancet Psychiatry* 547-560.

Holt-Lunstad, J., Smith, T. B., Layton, J. B., 'Social Relationships and Mortality Risk: A Meta-Analytic Review' (2010) 7(7) *PLoS Medicine*. DOI: 10.1371/journal.pmed.1000316.

Jasinski, J. L., Asdigian, N. L., Kantor, G. K., 'Ethnic Adaptations to Occupational Strain: Work-Related Stress, Drinking, and Wife Assault Among Anglo and Hispanic Husbands' (1997) 12(6) *Journal of Interpersonal Violence* 814-831.

Khalili, R., Sirati Nir, M., Ebadi, A., Tavallai, A., Habibi, M., 'Validity and Reliability of the Cohen 10-Item Perceived Stress Scale in Patients with Chronic Headache: Persian Version' (2017) (26) *Asian Journal of Psychiatry* 136-140.

Kumar, A., 'COVID-19 and Domestic Violence: A Possible Public Health Crisis' (2020) 22(2) *Journal of Health Management* 192-196.

Kyriakidou, M., Zalaf, A., Christophorou, S., Ruiz-Garcia, A., Valanides, C., 'Longitudinal Fluctuations of National Help-Seeking Reports for Domestic Violence before, during, and after the Financial Crisis in Cyprus' (2021) 36(15-16) *Journal of Interpersonal Violence* 8333-8346.

Lee, S., Chan, L. Y., Chau, A. M., Kwok, K. P., Kleinman, A., 'The Experience of SARS-Related Stigma at Amoy Gardens' (2005) 61(9) *Social Science & Medicine* 2038-2046.

Li, S., Feng, B., Liao, W., Pan, W., 'Internet Use, Risk Awareness, and Demographic Characteristics Associated with Engagement in Preventive Behaviors and Testing:

Cross-Sectional Survey on COVID-19 in the United States' (2020) 22(6) *Journal of Medical Internet Research*. DOI: 10.2196/19782.

Liu, D., Ren, Y., Yan, F., Li, Y., Xu, X., Yu, X., Tan, S., 'Psychological Impact and Predisposing Factors of the Coronavirus Disease 2019 (COVID-19) Pandemic on General Public in China' (2020) *SSRN Electronic Journal*. DOI: 10.2139/ssrn.3551415.

Mariano, E. B., Rebelatto, D. A. D. N., 'Transformation of Wealth Produced into Quality of Life: Analysis of the Social Efficiency of Nation-States with the DEA's Triple Index Approach' (2014) 65 *Journal of the Operational Research Society* 1664-1681.

Marjanovic, Z., Greenglass, E. R., Coffey, S., 'The Relevance of Psychosocial Variables and Working Conditions in Predicting Nurses' Coping Strategies during the SARS Crisis: An Online Questionnaire Survey' (2007) 44(6) *International Journal of Nursing Studies* 991-998.

Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., Roma, P. 'A Nationwide Survey of Psychological Distress among Italian People during the COVID-19 Pandemic: Immediate Psychological Responses and Associated Factors' (2020) 17(9) *International Journal of Environmental Research and Public Health* 3165. DOI:10.3390/ijerph17093165.

Murphy, C. M., Hoover, S. A., 'Measuring Emotional Abuse in Dating Relationships as a Multifactorial Construct' (1999) 14(1) *Violence and Victims* 39-53.

Pakpour, A. H., Griffiths, M. D., Lin, C.-Y., 'Assessing Psychological Response to the COVID-19: The Fear of COVID-19 Scale and the COVID Stress Scales' (2021) 19(6) *International Journal of Mental Health and Addiction* 2407-2410.

Peterman, A., O'Donnell, M., 'COVID-19 and Violence against Women and Children: A Third Research Round up for the 16 Days of Activism' (2020) *CGD Note*. Available at https://covid19.alnap.org/system/files/content/resource/files/main/covid-and-violence-against-women-and-children-three.pdf.

Probst, J. C., Wang, J. Y., Martin, A. B., Moore, C. G., Paul, B. M., Samuels, M. E. 'Potentially Violent Disagreements and Parenting Stress among American Indian/Alaska Native Families: Analysis across Seven States' (2008) 12 Suppl 1 *Maternal and Child Health Journal* 91-102.

Purba, F.D., Hunfeld, J.A.M., Iskandarsyah, A., Fitriana, T.S., Sadarjoen, S.S., Passchier, J., Busschbach, J.J.V., 'Quality of Life of the Indonesian General Popula-

tion: Test-Retest Reliability and Population Norms of the EQ-5D-5L and WHO-QOL-BREF' (2018) 13(5) *PLoS One*. DOI: 10.1371/journal.pone.0197098.

Reynolds, D., Garay, J., Deamond, S., Moran, M., Gold, W., Styra, R., 'Understanding, Compliance and Psychological Impact of the SARS Quarantine Experience' (2008) 136(7) *Epidemiology and Infection* 997-1007.

Rosén, H., Ahlström, G., Lexén, A., 'Psychometric Properties of the WHOQOL-BREF among Next of Kin to Older Persons in Nursing Homes' (2020) 18 *Health and Quality of Life Outcomes* 103. DOI: 10.1186/s12955-020-01345-9.

Sacchetti, G.M., Lefler, E.K., 'ADHD Symptomology and Social Functioning in College Students' (2017) 21(12) *Journal of Attention Disorders* 1009-1019.

Schneider, D., Harknett, K., McLanahan, S., 'Intimate Partner Violence in the Great Recession' (2016) 53(2) *Demography* 471-505.

Shigemura, J., Ursano, R. J., Morganstein, J. C., Kurosawa, M., Benedek, D. M., 'Public Responses to the Novel 2019 Coronavirus (2019-nCoV) in Japan: Mental Health Consequences and Target Populations' (2020) *74*(4) *Psychiatry and Clinical Neurosciences* 281. DOI: 10.1111/pcn.12988.

Skevington, S.M., Lotfy, M., O'Connell, K.A., WHOQOL Group, 'The World Health Organization's WHOQOL-BREF Quality of Life Assessment: Psychometric Properties and Results of the International Field Trial. A Report from the WHOQOL Group' (2004) 13(2) *Qualitative Life Research* 299-310.

Straus, M. A., Douglas, E. M., 'A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality' (2004) 19(5) *Violence and Victims* 507-520.

Straus, M., Hamby, S., Boney-McCoy, S., Sugarman, D., 'The Revised Conflict Tactics Scales (CTS2): Development and Preliminary Psychometric Data' (1996) 17(3) *Journal of Family Issues* 283-316.

Tavernier, J., Cuneo, P., Plateau, C., 'Measurement of Quality of Life and Well-Being in France: The Drivers of Subjective Well-Being' (2014) 61(1) *The Review of Income and Wealth* 25-33. Available at DOI: 10.1111/roiw.12157.

Tavoli, Z., Tavoli, A., Amirpour, R., Hosseini, R., Montazeri, A., 'Quality of Life in Women who were Exposed to Domestic Violence during Pregnancy' (2016) 16(1) *BMC Pregnancy and Childbirth* 1-7 DOI: 10.1186/s12884-016-0810-6.

Taylor, J. M., 'Psychometric Analysis of the Ten-Item Perceived Stress Scale' (2015) 27(1) *Psychological Assessment* 90-101.

WHO (World Health Organization) Division of Mental Health, *WHOQOL-BREF: Introduction, Administration, Scoring and Generic Version of the Assessment : Field Trial Version, December 1996* (1996) available at https://apps.who.int/iris/handle/10665/63529 [accessed 11 January 2020].

WHO (World Health Organization), *WHOQOL: Measuring Quality of Life* (2012) Available at https://www.who.int/tools/whoqol#:~:text=WHO%20defines%20Quality%20of%20Life,%2C%20expectations%2C%20standards%20and%20concerns [accessed 6 September 2022].

WHO (World Health Organization), *Violence Against Women* (2017) Available at https://www.who.int/news-room/fact-sheets/detail/violence-against-women. [accessed 6 September 2022].

WHO (World Health Organization) *Mental Health and Psychosocial Considerations during the COVID-19 Outbreak* (2020a) available at https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf [accessed September 2022].

WHO (World Health Organization) *Q&A: Violence Against Women during COVID-19* (2020b) available at https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/violence-against-women-during-covid-19 / [accessed September 2022].

WHO (World Health Organization), *WHO Coronavirus (COVID-19) Dashboard* (2022) available at https://covid19.who.int/ [accessed September 2022].

Wittenberg, E., Joshi, M., Thomas, K. A., McCloskey, L. A., 'Measuring the Effect of Intimate Partner Violence on Health-Related Quality of Life: A Qualitative Focus Group Study' (2007) 5 *Health and Quality of Life Outcomes* 67. DOI: 10.1186/1477-7525-5-67.