

Case Report

Spirituality for Social Isolation in a Patient with Cognitive Impairment: A Case Report

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Abstract.

Background: Social isolation is very common and has increased during the COVID-19 pandemic.

Objective: To study if spiritual reconnection as part of a multi-component intervention can reduce social isolation in older adults with cognitive impairment.

Methods: A longitudinal case study framework was used. A 68-year-old female with mild cognitive impairment presented with social isolation exacerbated by the COVID-19 pandemic. She participated in a telephone-based psychosocial intervention program called Connection Plans for 8 weeks. Motivational interviewing techniques were used to encourage the patient to pick goals to improve the mind, body, and connections. In her connections goal, the patient expressed a desire to make spiritual reconnection. Connecting back to her spirituality was one of the key interventions in this patient. Social isolation, resilience, self-efficacy, and cognition were assessed using standardized rating scales before and after the intervention.

Results: The patient was able to identify goals to enhance connections and physical and mental well-being. She successfully reconnected with her spirituality while maintaining COVID prevention measures. At an 8-week follow-up, compared to the baseline visit there was an improvement in measures of social isolation (22/30 to 14/30, a 36% reduction), resilience (12/20 to 20/20, a 67% improvement), and confidence (4/20 to 16/20, a 300% improvement). No improvement was noted in cognition.

Conclusions: Spiritual reconnection as part of a multi-component intervention may protect against social isolation in older adults with cognitive impairment. Caution must be exercised in reaching this conclusion as this is a report of a single patient. Systematic studies are needed.

Keywords: COVID pandemic, resilience, social isolation, spirituality

INTRODUCTION

Social isolation and feelings of loneliness are common and have increased during COVID pandemic. While social isolation is a complete or partial loss of

contact with other individuals and society at large, loneliness is a subjective feeling of unhappiness or feelings of being dissatisfied with being alone [1]. The World Health Organization (WHO) identified social isolation and loneliness as significant public health concerns worldwide in 2019 even before the onset of COVID pandemic. Recently, the US Surgeon General has highlighted the impact of loneliness on health by appealing on primetime television.

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Even though only 25% of adults aged 65 years and older report social isolation, about 40% of Americans report loneliness [2]. The reported increase in feelings of social isolation and loneliness has been impacted by the COVID-19 pandemic which effectively changed people's lifestyles by a need for social distancing, quarantine mandates, and self-isolation [3, 4]. Although cases of COVID infection have fallen, they are making a comeback in several parts of the world.

Social isolation and loneliness adversely impact biopsychosocial factors of health [1]. The adverse health effects of social isolation are comparable to hypertension, sedentary lifestyle, or smoking 15 cigarettes a day. A path analysis conducted in over 800 respondents during pandemic showed that higher social isolation predicted greater depression [5]. Biological factors such as increased inflammatory markers with social isolation could explain some of the deleterious effects [2]. Psychological factors associated with social isolation include higher perceived stress, anxiety, and depression in patients with social isolation and social factors associated with social isolation foster unhealthy behavior such as eating an unhealthy diet and poor hygiene. It is not surprising to see this increases the incidence of coronary heart disease by 29% and that of stroke by 3% [4, 6].

Social isolation is particularly prevalent in some high-risk populations. Higher levels of social isolation have been linked with increasing age, living alone, increasing comorbidities, and living with cognitive impairment [7]. The presence of social isolation in patients with mild cognitive impairment (MCI) predisposes them to higher rates of conversion to dementia compared to those with good social networks and support. For example, people with MCI who live alone are 50% more likely to develop dementia compared to those who live with someone [8]. Donovan et al. found a higher amyloid burden in those that report loneliness in comparison to those without loneliness explaining the higher levels of loneliness in Alzheimer's disease (AD) compared to other dementias [9]. Social isolation and loneliness also speed dementia progression. Loneliness was associated with more rapid declines in memory and language fluency than non-lonely controls in the 10-year follow-up of the English Longitudinal Study of Ageing [10]. Porcelli et al. concluded that social deprivation negatively affects cognitive performance in people with dementia [11]. Persons with cognitive impairment often struggle with spiritual and religious conflicts and can actively engage in meaningful dis-

ussion about how spirituality influences their life at least early stages of dementia [12]. Hence it is important to focus on social isolation and loneliness in patients with MCI and AD.

Several programs have been started to target and aid these high-risk patients. The Department of Veterans Affairs started a telephone-based program called Connection Plans based on suicide prevention [13]. In all these programs, an under-emphasized intervention is harnessing the spiritual connection. Spiritual AIM theoretical framework provides chaplains to develop a plan to address unmet spiritual needs through empathic connections with oneself or others [14, 15]. Due to the pandemic these connections have been severed. Others such as Pargament have argued that re-establishing the spiritual connection helps patients cope in many ways as religion is a relatively available part of our society and a culturally acceptable coping mechanism [16]. Older adults with MCI and dementia have lost their spiritual connection due to restrictions on travel, church gatherings, and increased risk of infection, along with fear due to COVID. Here we discuss a patient with MCI that responded well to Connection Plans with an emphasis on spiritual reconnection. The terms religiosity and spirituality are not clearly defined. Many people consider themselves spiritual but not religious. Spiritual connection, or spirituality may be defined as a person practicing or connecting with a higher power, their creator, "a search for the sacred", a connection or relationship through prayer [17]. This often leads to sharing a bond with others who have similar beliefs and a like-minded faith experience. Some people connect with their spirit via yoga, meditation, swimming, prayer, bible reading or simply listening to someone empathically. Social isolation has the potential to reduce one's spiritual connectedness. We also discuss the mechanisms by which spiritual connection could allay social isolation.

CASE DESCRIPTION

A longitudinal case study framework was used [18]. Ms. A was a 68-year-old Caucasian female with a college education who lived alone in her own home along with her cats. Her church was the main source of support before pandemic. Her comorbidities included depression, osteoarthritis, hypertension, hyperlipidemia, obesity, and GERD. Her medications included amlodipine, lamotrigine, cholecalciferol, venlafaxine, and melatonin. She had memory problems for

the last three years. She took precautions to avoid exposure to COVID and was successful in avoiding the infection. She went to a senior center and church regularly before the pandemic which helped her keep in touch with her friends. However, when these two avenues were shut down during the pandemic, she lost contact with her friends and other support systems. She was provided 8-weeks of intervention with the Connections plans. Social isolation, cognition, resilience, and confidence scale were assessed before and after the intervention.

Procedures

The Connection Plans for Cognitive Impairment is a program that was developed to address social isolation by increasing social connection. It was modeled after Van Orden and colleagues. A detailed manual was developed with ample training for interventionists. Cognitive Behavioral Therapy (CBT) principles are used to help the participant develop a plan to increase connections using the mind and body framework. Collaboration with caregivers is offered to the participants with cognitive impairment. Motivational interviewing techniques are used. Several resources are provided including spiritual support such as goals set for journaling, prayer, Bible reading, and church attendance, for those who communicate a pattern of spiritual behavior with the interventionist. Resource referral and other interventions are tailored to patients' needs. Tailored follow-up contacts are provided with an average of 2–3 contacts over a period of 8 weeks. All contacts are via telephone or conducted as virtual video visits. These interventions are currently being conducted by the corresponding author of this paper, Christina G Crawford, Health Science Specialist, for Geriatric Research Education and Clinical Center in the Central Arkansas Veteran's Healthcare System and a Certified Rehabilitation Counselor.

Measures

PROMIS SF V2.0 social Isolation scale [5, 19] is a six-item scale that assesses feelings of being left out, isolated, and perceptions of being avoided, excluded, detached, disconnected from, or unknown by (feeling like a stranger to) others. Each item is scored on a scale of 1–5 with higher scores indicating greater social isolation. The Brief Resilient Coping Scale (BRCS) is a four-item measure of coping ability and attitudes regarding adverse expe-

riences [20]. Each item is scored on a scale of 1–5 with higher scores indicating greater resilient coping. PROMIS SF v1.0- Self-Efficacy Manage Social Interactions or Confidence scale is a four-item measure of confidence in participation in social activities and confidence to ask for help when necessary [21]. This also includes managing communication with others about their medical condition, including communication with health professionals. Each item is scored on a scale of 1–5 with higher scores indicating self-efficacy/confidence in social interactions. Telephone Montreal Cognitive Assessment (T-MoCA) is a brief, telephone-administered cognitive screening measure encompassing simple attention, vigilance, spatial and temporal orientation, repetition, phonemic fluency, registration/learning, delayed memory, serial subtraction, and abstraction [22].

RESULTS

At baseline, Ms. A had a high degree of social isolation (22/30 on the PROMIS SF V2.0 Social Isolation scale), poor resilience (12/20 on the brief resilient coping scale), and poor confidence (4/20 on PROMIS SF v1.0- Self-Efficacy Manage Social Interactions or Confidence scale) (Table 1). She was keen on reconnecting with her church but was hesitant to go in person and was not savvy to access technology. Her 'mind' goals were to watch and exercise online, read spiritual books, and have a list of phone numbers for VA contacts. Her 'body' goals were to use an app on her phone to measure the number of steps she takes each day and to get back to the YMCA for exercises. Her body goals also were to join back into the VA MOVE program when it is offered in person and to be more active. Her 'Connection' goals included reconnecting with her church, attending church at least once a week, starting an exercise group with her friends, and trying the new connect group.

Ms. A did set goals in the area of physical activity and seeking out whole health interventions. However, these were areas where she was already active. She reportedly walked at Wal Mart almost every day for exercise, exercised with Silver Sneakers online, and did online yoga. Upon multiple interviews with Ms. A throughout the 8-week intervention, the area of spiritual renewal was the area where she began to experience the most growth. These interviews were conducted in 2021 during the height of the COVID-19 impact of prolonged quarantine. Ms. A's spirituality and renewed attendance with others of like faith was

Table 1
Changes in social isolation, perceived stress, coping, confidence, and cognition with a brief psychosocial intervention

Variable	Pre-assessment	Post-assessment
PROMIS SF V2.0 Social Isolation (6–30) (Lower scores better)	22	14
Brief Resilient Coping Scale (0–20) (Higher scores better)	12	20
PROMIS SF v1.0- Self-Efficacy Manage Soc. Interactions or Confidence scale (4–20) (Higher scores better)	4	16
T-MoCA (0–22) (Higher scores better)	19	17

self-reported to us as the most beneficial in reversing and reducing her feelings of social isolation and loneliness.

A digital divide (offered by VA as a loaner iPad for veteran use) consult was ordered, and she was provided a tablet device with internet connectivity. At the 8-week follow-up visit, she increased her social contact with her friends in church and made some friends online. She continues to struggle to remember some scriptural verses but enjoys participating in the service. She gets frustrated when she cannot recall verses that she was very good with in the past. At the 8-week follow-up, there was an improvement in social isolation, resilience, and confidence (Table 1). However, there was a slight decrease in the T-MoCA scores between the visits.

Ms. A experienced a reduction in feelings of social isolation with an overall score of 22 out of 30 on pre-assessment and 14 out of 30 on post-assessment for the PROMIS SF social isolation measure. Her coping increased from 12/ 20 on the BRCS to 20/ 20 at follow-up, a perfect score. The PROMIS SF Self-Efficacy management of social interaction increased from 4 out of 20 at baseline to 16 out of 20 at the time of post-assessment and follow-up. The reduction of feelings of social isolation may further lead to an increase in feelings of confidence, coping, and management through self-efficacy. As each intervention is unique, Ms. A reported benefits from increased spirituality and its focus. The T-MoCA score was 19/22 at baseline and decreased to 17/22 after the 8-week intervention.

DISCUSSION

Individuals have long turned to their religion and spirituality to make meaning of and cope with disasters [23]. However, turning to religion was difficult during the pandemic due to the closure of in-person services. Although over 50% of adults in the US turned to online worship to replace in-person church attendance [24], those with poor technology access or

capability were left behind. Our case report highlights the need for careful evaluation of social isolation and loneliness in vulnerable populations. Using existing mechanisms in the Department of Veterans Affairs, our patient received a tablet, internet connectivity, and technical help to establish spiritual reconnection to handle the increased anxiety and social isolation exaggerated by the pandemic.

Emerging literature shows that spirituality helps promote mental health and reduce social isolation. In a study of caregivers ($N=549$) conducted during COVID pandemic, researchers found that higher levels of religiosity and spirituality were associated with lower levels of psychological distress [25]. Furthermore, they found that the relationship was mediated by higher levels of positive coping among those with high religiosity and spirituality. In concordance with the spiritual AIM model, making spiritual connections as part of the intervention helped with coping and self-efficacy/social confidence in our patient [14]. This type of intervention is particularly salient in handling adversities, such as COVID pandemic.

In another study that focused on spiritual practices among Christian Americans ($N=104$), during pandemic, researchers found that religiosity was associated with enhanced subjective well-being [26]. This positive association was mediated by spiritual participation. This study supports religious activity both in-person and online attendance of church services. In our patient attendance at church services was also the main source of social interaction. It would be helpful to create online social communities to help members interact during attendance at church services. Instead of live streaming of the services, online panels or Zoom discussions might enhance the social and spiritual aspects of the religious offerings, thus leading to a sense of community among those who are members of the church yet unable to attend in person.

Koenig outlined the role of religion in protecting older adults from the effects of the pandemic [27]. The seven steps recommended by Dr. Koenig include a) developing a deeper connection with faith,

b) staying physically healthy, c) caring for neighbors, d) meeting the emotional needs of neighbors, e) meeting the physical needs of neighbors, f) following social distancing guidelines, and g) taking advantage of technology. Our Connection Plans intervention focused on four of the recommended steps (a, b, f, and g). Fulfilling the spiritual needs of older adults may partly explain the emotional improvement seen in our participants.

There are several limitations of the report including the lack of a control intervention. This finding needs to be replicated in a carefully conducted clinical trial using diverse populations spread over different geographic locations.

Conclusion

Spiritual reconnection as part of a multi-component intervention including physical and emotional engagement may serve as protective factors against social isolation exacerbated by the pandemic in older adults with cognitive impairment. Caution must be exercised in reaching this conclusion as this is a report of a single patient. Systematic studies are needed.

AUTHOR CONTRIBUTIONS

Akshay P Padala (Writing – original draft); Parameshwaran Ramakrishnan, MD, PhD (Candidate), BCC (eligible) (Writing – review & editing); Christina G Crawford, MA, LAC, CRC Rehabilitation Counseling (Writing – review & editing).

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CONFLICT OF INTEREST

The authors have no conflict of interest to report.

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