A Pilot Study to Assess the Effects of Spirituality on Social Functioning in People with Schizophrenia

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Previous research suggests that religious practices are associated with a higher-quality of life in both nonclinical and clinical samples. However, few studies have examined the association between religion and quality of life in samples of people with schizophrenia. In this study, we evaluated the relation between religiosity and quality of life in people with schizophrenia in Hawaii. Participants completed the Structured Clinical Interview for the DSM-5, the Social Functioning Scale, and Brief Multidimensional Measure of Religiousness/Spirituality scale (BMMRS). Data collection is ongoing, and preliminary findings suggest that people with schizophrenia who are involved in religious activities tend to have a higher quality of life than people with schizophrenia who are not involved in religious activities. Further investigation on the effects of spirituality in people with schizophrenia is important because it could determine practical lifestyle changes that may lead to a happier and healthier life.

About 1 in 5 adults experience mental illness in the United States in a given year. Unfortunately, mental illness tends to cluster within families, and more specifically, mine. My mother lives with bipolar disorder, my grandmother had schizophrenia, and so did my oldest uncle. I was only 12; 12 when my mother chased me around the house with a butcher knife threatening to kill me and then threatened to take her own life—suicide. In that moment I said a prayer; I prayed that this dark nightmare would end and eventually it did. It is feelings of absolute despair, reaching out to a divine attribute, and seeing how my mother who lives with a mental illness is happiest when she is immersed in her religious beliefs that led me to research how quality of life and religion overlap specifically in people with mental illness, and in this case schizophrenia.

What is Schizophrenia? Schizophrenia is a chronic mental disorder, otherwise known as a brain disease and is often caused by a combination of both genetic and environmental factors [26, 27]. People with schizophrenia experience three major types of symptoms: positive, negative, and disorganized.

Aloha, I conducted this research in partial fulfillment of the requirements for a Bachelor of Arts with Honors. As a multi-racial individual that has Portuguese, Hawaiian ancestry, I wanted to contribute a piece that included novel information about and for Native Hawaiians. This work is a blend of my personal connection to mental health and a proposition to implement holistic interventions. In the near future I will complete my master's in social work, become a clinical social worker, and open up my own private practice.

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Positive symptoms are defined as abnormal experiences which include, hallucinations, hearing voices, and/or delusions, feeling somebody is out to get you, which are not had by healthy people. This unusual conduct is recognized as an addition to the psyche, hence the term 'positive symptom.' Other abnormal behaviors include negative symptoms which present as apathy or lack of emotion, and typically involve loss of function [3]. Finally, disorganized symptoms, are characterized as muddled speech, rambling, peculiar behavior, and catatonia (abnormal movement or behavior) [18].

The most widely used system to diagnose schizophrenia is the Diagnostic Statisical Manual for Mental Disorder (DSM), which is a handbook used by health care professionals to identify mental disorders. Because the exact etiology of schizophrenia is unknown, treatment focuses on alleviating symptoms associated with the psychotic illness. The two most common forms of treatment are psychotherapy and antipsychotic medications. Psychotherapy has great potential to instill empowerment and confidence especially when combining it with other practices [19]. Of all mental illnesses, schizophrenia is one of the most debilitating, and affects the way an individual thinks, feels, and behaves. About one in a hundred people live with this disorder [20].

In this current study we determined if religious people with schizophrenia experience higher social functioning (a component of quality of life) when compared to non-religious people with schizophrenia. The leading cause of premature death for those with schizophrenia is suicide. Focusing on quality of life in individuals with schizophrenia may decrease the number of suicides and prolong life. Further investigation on the effects of spirituality in people with schizophrenia is important because it may determine practical lifestyle changes, leading individuals to a happier and healthier life. Focusing on the impact of spiritual practices in individuals with health problems is vital to specific populations like Native Hawaiians, whose culture is heavily influenced by spirituality. In this study, we determined if people with schizophrenia are inclined to a higher state of social functioning when identified as spiritual or religious.

Although the WHO has invested and analyzed the correlation between spirituality and psychotic disorders, like schizophrenia, few studies have examined whether religion can be effectively incorporated into treatment [5]. Moreover, little is known about the relations between spirituality/religiosity and treatment outcome. Psychiatric persons who experience a great deal of debilitation and distress from their illness are more likely to rely on a support system or utilize religious coping strategies [25].

Another study tested the hypothesis: that religiosity affects people differently in different countries and shows that 'religiosity makes people happier in religious nations' [25]. Again, this suggests that it is not religion alone that contributes to higher life satisfaction, but the social aspect in which it provides that enhances happiness. A lot of the euphoria brought about from religion seems to be rooted in the social setting it offers, satisfying the 'need to belong' a fundamental quality for human happiness. Because religious people with schizophrenia engage in the community and have more social interactions, we hypothesize these people will report higher scores on the Social Functioning Scale, than non-religious people with schizophrenia.

Research on patients with psychotic disorders in the Hawaiian Islands is very limited. This is unfortunate because Hawai'i has a very diverse population compared to the continental US, and Europe; which are where most studies have been conducted. There is a much higher Asian, Multi-Racial, and Native Hawaiian, population in Hawai'i, than that of the continental United States; this increased ethnic variation make it a desirable place to conduct research. There is little to no information on the effects of spirituality in people with schizophrenia who are Native Hawaiian. Further research is necessary to determine better treatment plans for people with schizophrenia in Hawaii and for those who are of Native Hawaiian decent. Spirituality should be evaluated in a diverse population, to help identify if religion provides a mechanism that enhances overall quality of life.

Types of Religious Practices in Hawai'i

In Hawai'i, Christianity is the most practiced religion (63%), comparable to the entire United States study. However, when comparing statistics of those whom are of non-Christian faiths in the U.S. versus in Hawai'i, the disparity is drastic. About 6% of the U.S. population are of non-Christian faith, whereas in Hawai'i this number is at 10%. The percentage in Hawai'i is nearly doubled because of the heightened Buddhist population of 8%; meanwhile the entire U.S is comprised of 0.7% Buddhist. This influx of Buddhists' may be a result of the large Asian population. The statistics of those unaffiliated with a religion are also slightly higher in Hawaii (26%). These variations in statistics show that Hawai'i is comprised of quite a different religious sample to that of the United States, and while most studies evaluating the effects of religion in patients with schizophrenia have been done in Europe and North America [17] this diverse population make it an ideal region to conduct a study that involves spirituality/religiosity.

Indigenous Hawaiian Spirituality

Religiousness and spirituality are prominent features of the Kanaka Maoli (Native Hawaiian) culture and are evident among creation chants of the ancient Hawaiian civilization [22, 23]. In the creation chant *Kumulipo,* 'everything unfolds in genealogical sequence linking the royal family of Ka li Mamao to the

stars in the heavens, gods, chiefs, people, land, animals, and other creatures on earth' and emphasizes that all are intricately connected at birth [22, p. 408]. Another common creation epic is that of the earth mother, Papahānaumoku, and the sky father, Wākea, together they created the Hawaiian Islands and had a daughter Ho'ohokukalani. The cohabiting between Wākea and Ho'ohokukalani led to the birth of a stillborn Hāloa-naka. The burial of the fetus in the earth transformed into the first kalo plant, Hāloa, and is known as the great ancestor to all Hawaiian people [14]. Spirituality/Religiosity is still imperative in the lives of many Kanaka. However, these traditional epics no longer serve alone as the only spiritual and religious guide for Native Hawaiians. The traditional Kanaka Maoli views on spirituality were altered upon the arrival of missionaries in the 1820's. Contemporary views on spirituality/religiousity include that of Hawaiian cosmography and doctrines of Christianity, Catholic, and Protestant denominations [15]. This symbiotic relationship between Hawaiian cosmography and Christian-alike faith has led many Native Hawaiians accepting both "aumakua (family gods) and a Christian God, worshipping out in nature like the mountains, ocean, or church" [22, p. 409].

Little to no research has investigated the role of spirituality in the quality of life of people with schizophrenia in Hawaii, and more specifically in minority populations like the Native Hawaiians. Many Native Hawaiians are spiritual because their culture is built upon a variety of deities and chants. In this current study the effects of spirituality on quality of life in Native Hawaiian people with schizophrenia is finally beginning to be assessed. This study aims to evaluate the relationship between spirituality and quality of life among people with schizophrenia or schizoaffective disorder compared to non-religious people with schizophrenia in an ethnically diverse setting. The implementation of holistic interventions that include spirituality/religiosity when paired with psychotherapy may enhance the overall quality of life in those suffering from a mental illness. Concentrating on fixating and decreasing depressive symptoms by enhancing social functioning may increase quality of life, and ultimately reduce the rate of suicide among those with schizophrenia. Some studies have found that religiosity reduces symptoms in people with schizophrenia [26]. Studies investigating spirituality in relation to quality of life in people with health problems are imperative to the overall health of Native Hawaiians, seeing as their culture is centralized around spiritual traditions.

Methods

Study Participants

This study recruited 27 participants: 16 (11 males and 5 females) individuals met criteria for schizophrenia or schizoaffective disorders, and 11 (7 males and 4 females) 'healthy controls', did not meet the criteria for past or present mental illnesses. The 16 people with schizophrenia were recruited from community clubhouses and outpatient treatment centers directed by the Adult Mental Health Division affiliated with the Hawai'i Department of Health. Healthy controls were recruited via postings on Craigslist (www.Craigslist.org). Participants were matched on age, sex, ethnicity, and parental education (see Table 1).

Diagnosis and Symptom Ratings

The *Structured Clinical Interview for the DSM 5 (SCID-5)* [10] is an effective diagnostic tool commonly used by mental health professionals to assess and diagnose mental illnesses; It has been coined the 'gold standard', utilized to confirm outpatient's diagnosis of schizophrenia, and to rule out mental illness in controls.

The *Social Functioning Scale* (SFS) [4] is a 79-item scale, has been commonly used to assess social functioning in people with schizophrenia.

The *Brief Multidimensional Measure of Religion/Spirituality* (BMMRS) for Use in Health Research (BMMRS; Fetzer Group/ National Institute on Aging Working Group, 1999) was used to measure religion and spirituality and has a total of 38 items [9]. Lower scores on the BMMRS indicates higher religiosity.

Procedure

As part of a larger study which lasted approximately four hours, data was collected via interviews and questionnaires. The Structured Clinical Interview of the DSM-5 (SCID) was performed by advanced PhD graduate students of the psychology department, and research assistants administered the Brief Multidimensional Measure of Religiosity and Spirituality (BMMRS) and the Social Functioning Scale (SFS) using the survey program Media Lab via computer. The study was conducted at the University of Hawai'i at Mānoa's, Hawai'i Early Assessment Laboratory (HEAL Lab) in a private room. This study was approved by the University of Hawai'i's IRB.

Results and Discussion

The current study found a significant difference between people with schizophrenia and controls; Nearly all people with schizophrenia identified with some religious group or denomination, while most controls did not. This is consistent with past research that examined the prevalence of religious beliefs in psychiatric and non-psychiatric individuals, which found more people with mental illnesses have religious beliefs than controls [23]. Seeing as more people with schizophrenia identify as religious than the general population, and it seems to play an imperative role in their lives, further investigations should

evaluate the absolute function of religiosity to establish better treatment plans.

People with schizophrenia who affiliate with a religion reported more forgiveness and engaging in cultural practices than non-religious people with schizophrenia on the BMMRS. To my knowledge, these factors have not been reported as significant in past studies. This study may have found these results because our sample included Native Hawaiians, whose culture values spirituality. Participating in cultural practices like meditating or saying prayers may be of more importance for those who identify with a culture who often practices these types of traditions. Future studies should examine the effects of forgiveness and cultural practices in relation to religiosity in those with schizophrenia and identify if these experiences enhance social functioning, particularly in cultures who engage in these types of activities.

We also found that religious people with schizophrenia experienced more congregational support than the healthy control group. This finding is inconsistent with previous work, which found people with schizophrenia experience decreased congregational support [16]. This effect may be due to a more diverse sample size, including Native Hawaiians whose culture is more spiritually focused than others. Future research on congregational support in ethnically diverse settings may determine if this factor is positively associated with social functioning.

Religious people with schizophrenia scored higher on the Social Functioning Scale than non-religious people with schizophrenia. This suggests affiliating with a religion could be a component essential for higher social functioning. Religion may serve as a foundation for community and social engagement, realistic tools that may provide a sense of purpose, act as a coping mechanism, and decrease isolation and depression common in people with schizophrenia.

People with schizophrenia who identify with a religion also scored higher on social activities than non-religious people with schizophrenia. Because affiliating with a religion often opens the opportunity to engage in social activities, we expected that religious people with schizophrenia would then claim to be more social than those who are not religious.

Through this current study those who reported high religious beliefs expressed more forgiveness, participation in cultural practices, positive congregational support, and higher scores on the Social Functioning Scale (SFS) overall, and specifically on the subscale social activities. Studying cultural practices and congregational support in relation to life satisfaction in those with schizophrenia may contribute to the research needed to initiate practical life style changes that may complement current treatment plans.

Limitations

First, the relatively small sample size of only 16 people with schizophrenia and 10 controls, may not be a true representative of Hawaii's population of people with schizophrenia or 'healthy controls.' Second, participants were not matched on religion. Considering there is a significant difference between people with schizophrenia that are religious than controls, it is reasonable to question whether this is due to the small sample size or are those with mental illness generally that much more religious. Third, the recruitment of people with schizophrenia was done at outpatient clinics and clubhouses associated with the Adult Mental Health Division of the Hawaii Department of Health. This may not have been a representative sample of people with schizophrenia in Hawaii.

Future studies should utilize a larger sample population size as it will permit for a representative sample. They should also consider different measures that assess the quality of life, seeing as this study only analyzed one dimension of quality of life, social functioning. Despite these limitations, very little research has examined the relationship between religiosity and quality of life in people with schizophrenia in the continental United States, and no previous studies to my knowledge, have investigated this relationship in Hawai'i. The current study explored the effects of religiosity in relation to quality of life, specifically social functioning in people with schizophrenia and may provide better insight into practical lifestyle changes or novel treatment plans for those suffering from schizophrenia or schizoaffective disorder; especially for populations like Native Hawaiians who value spirituality.

Research is needed to determine whether empirically based treatments can be supplemented with spiritual components to improve efficacy. Further evaluation is necessary to ultimately improve the quality of life in patients with mental disorders, possibly leading to a decrease of attempted and completed suicides in people with schizophrenia. Mental health professionals are typically not as religious as their patients [7] and are often unaware of their patients' religious beliefs [12]. This 'destitute in our clinical vision,' may impair cultural competence [11] and ignores what could be an important therapeutic agent.

Religious people with schizophrenia with higher social functioning may experience less isolation and depression. Treating depressive symptoms by focusing on coping techniques like social support, life satisfaction, and reassurance of worth could decrease the number of attempts and completed suicides. Affiliating with religious/spiritual beliefs may act as a podium for social interaction and community involvement, initiating a sense of purpose, and acting as a coping mechanism for people with schizophrenia. I can begin to trust that as my mother's faith increases she may be less inclined to commit suicide. I will continue to research different variables that may lead to effective treatments so my mother can experience a life worth living.

Table 1 Demographic Characteristics

	RELIGIOUS OUTPATIENTS		NON-RELIGIOUS OUTPATIENTS	
CHARACTERISTICS	N	%	N	%
Gender				
Male	11	69%	7	64%
Female	5	31%	4	36%
Age		*M*=50.63, *SD*=13.82		*M*=41.55, *SD*=19.65
Ethnicity				
Pacific Islander	1	6%		
East Asian	4	25%		
Hispanic	1	6%		
Multi-Racial	1	6%	1	9%
Native Hawaiian	3	19%	1	9%
Southeast Asian	1	6%	7	64%
White	4	25%	1	9%
African American			1	9%
Did Not Specify	1	6%		

Note: Total Participants = 27

Table 2 BMMRS Subscales

	RELIGIOUS OUTPATIENTS		NON-RELIGIOUS OUTPATIENTS			
	M	*SD*	*M*	*SD*	*F*	*P* VALUE
Positive Spiritual Experiences	29.92	5.19	43.33	11.93	10	0.007*
Forgiveness	14.15	5.71	23.33	3.79	7	0.020*
Cultural Practices	13.46	3.31	14.67	8.08	0.189	0.670
Positive Congregational Support	13.62	5.91	15.33	6.03	0.205	0.658

Note: Total participants = 16. BMMRS subscales analyses classified religious people with schizophrenia as those who affiliate with a religion and non-religious people as those who do not affiliate with a religion.

Table 3 Median Split

	RELIGIOUS OUTPATIENTS					NON-RELIGIOUS OUTPATIENTS				
	N	*M*	*SD*	MIN	MAX	*N*	*M*	*SD*	MIN	MAX
BMMRS Scores	8	70.38	9.86	49.00	81.00	8	106.50	15.65	92	131

Table 4 SFS Subscales

	RELIGIOUS OUTPATIENTS		NON-RELIGIOUS OUTPATIENTS			
	M	*SD*	*M*	*SD*	*F*	*P* VALUE
Total SFS Scores	172.88	21.65	165.88	16.80	0.522	0.482
Independent Competence	17.13	2.75	16.50	5.18	0.091	0.768
Social Activities	43.38	10.88	37.25	8.78	1.54	0.236
Recreational Activities	32.50	6.57	32.63	5.24	0.002	0.967

Note: Total participants = 16 SFS subscale analyses classified people with schizophrenia as religious or non-religious using a median split.

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